19th EDINEB Conference
“The Role of Business Education in a Chaotic World”

2-4 May 2012
Haarlem, The Netherlands
Hogeschool Inholland

Edited by:
Bart Rienties, Peter Daly, Sandra Reeb-Gruber, Kristen Reid, Piet van den Bossche
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Wednesday 2\textsuperscript{nd} of May 2012
Keynote: About the beauty of not knowing

Thieu Besselink, The Learning Lab.

In times of chaos, structure becomes more relevant than ever. Not to organize the chaos away, but to make it fruitful. The most important order in external chaos, is the internal clarity with which to navigate it. A curriculum can be supportive to the development of such clarity, but in reality we have to deal with a deeply personal process for which teachers cannot prepare themselves with knowledge or methods. Do we dare to break the barrier between life and school, and to find ourselves in the unruly environment of human relationships, adventure, and serendipity. How do we as universities take responsibility for what we want to see in the world, and practice what we know on the basis of our research?

Thieu is founder of The Learning Lab and creative director of the River Institute, a venture network for research and initiative in learning, art, and social ecology.

“The laboratory for me is a place of inquiry and creation in a collective effort to understand and form ourselves and the world, to contribute to it with audacity and respect, and to grow in what makes us human – our creative capacity for meaningful action. I sometimes try to describe the disciplines I’m working in with social ecology, generative learning, and developmental philosophy.”

Our first lab was hosted by the Institute of Interdisciplinary Studies as an experimental course in leadership learning for honours students of University of Amsterdam (UvA), Amsterdam University College (AUC), and Free University (VU). The Learning Lab participates in curriculum development, program design and system learning processes with a.o. FreedomLab, Guggenheim, Utrecht University, BMW, MIT.

I do not recommend reading my bio, but for who needs labels, here is the institutional description:
Thieu is researcher, writer, and social entrepreneur, he wrote his multidisciplinary PhD with prof. Richard Sennett and prof. Neil Walker at the European University Institute, LSE, and NYU on authority and leadership in the open society. He also studied at the theater academy in Florence, piano and music technology at the conservatory, arts at Utrecht University College, law, organisation, culture and management at Utrecht University, political philosophy at Bologna University, and took an MSc in philosophy and urban studies at London School of Economics.
Thieu was political and strategic adviser to the mayor & vice mayors of Dordrecht, adviser to British ministers Bill Rammell and Gordon Brown for the Fabian Society, executive coach, board member of the Utrecht University department of law, executive board member of the Dutch Student Union, editorial board member of Scienceguide, and co-creator at NPI-dutch institute for organisational development and leadership. Currently Thieu is member of the audit committee of the Sirius innovation fund for the stimulation of excellence in higher education.
Thieu will give a keynote address on Wednesday 2 May, followed by a hands-on workshop.
Real life and the classroom: advantages and risks of commissioned student projects

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Abstract: This paper considers the execution of commissioned student projects (Ball 1995) on an MBA program in the hospitality industry. The commissioned student projects described in this paper have taken place over the last four years in collaboration between a major hotel chain and the Graduate school MBA program of a Swiss academic institution. The scheme matches student groups with hotel managers to research and gather evidence on issues which will then inform business practice within the hotel chain.

The projects described in this scheme are based on a theoretical educational framework (Juskiw and Glanz, 2011) that draws on action research (Dickens & Watkins, 1999; Lewin 1946; Realin, 2006), problem based learning (Albanese & Mitchell, 1993; Barrell 1998; Siok San Tan & Ng, 2006; Laughton & Ottewill, 1998) and appreciative enquiry (Cooperrider & Sekerka, 2006).

Laughton and Ottwil (1998) offer a table suggesting the structure of such commissioned projects, based around initiation activities, engagement activities, completion activities and review activities. Against these activities, 25 ‘building blocks’ are identified as structural in the process of building such commissioned projects. This paper reviews these four activities and 25 building blocks to structure the challenges and benefits for all parties involved in the scheme described above, over the 18 months to set up the scheme and four years of operations with the MBA cohorts. Data on advantages and challenges has been collected from Students, Faculty and industry Managers. Additional structural parts have also been identified through this process and associated pedagogical issues related to the challenges and advantages identified.

Such projects need to deal with the ‘chaos’ of ill-structured problems, timetabling issues and differences in academic and industry priorities. Few examples of the holistic experience of such commissioned student projects exist in the literature, and this paper is an attempt to record the operation of such projects for all parties to guide the setting up and execution of future schemes involving commissioned student projects.

Commissioned student projects

Studies (Ball 1995) have suggested that commissioned projects within the field of hospitality provide benefits to all involved, namely, the students, tutors, and the client. They work together to solve a problem that may bring about an improvement or a change, this process can also act as an agent of change (Gray, 2004). This paper describes collaboration between a hotel chain based in Switzerland and the Graduate school MBA program of a Swiss academic institution to offer students commissioned projects which form the basis of evidence based independent research over a yearlong study. Working on authentic problems with industry professionals students get to propose solutions to real life, real time problems following their own qualitative and quantitative investigation.

Pedagogic basis and course outcomes

Given that “that the success or otherwise of the whole enterprise depends upon the extent to which these activities are underpinned by certain values and principles or what could be described as pedagogic prerequisites” (Laughton and Ottwil 1998 p.98 ) considerable time has been spent establishing a strong pedagogic basis for these projects. The projects described in this scheme are based on a theoretical educational framework (Juskiw and Glanz, 2011) that draws on action research (Dickens & Watkins, 1999; Lewin 1946; Realin, 2006), problem based learning (Siok San Tan & Ng, 2006; Laughton & Ottewill, 1998) and appreciative enquiry (Cooperrider & Sekerka, 2006).

Where possible edagogic prerequisites for such commissioned student projects, identified by Laughton and Ottwils (1998 p. 98) as 1 an appreciation of the need for a coherent strategy for curriculum support; 2) a commitment to integration in the design and delivery of courses; 3) a tradition of rigour in the specification and utilisation of learning outcomes; 4) an emphasis on the process, as well as the substance, of learning and teaching; 5) a bias towards the application, and consequent enhancement, of skills and knowledge; and; 6) a belief in the merits of “learning by doing” and the importance of reflective practice, have been addressed. The course outcomes of the commissioned student projects have received particular attention.
Academic goals are established by the institution and understood by the industry partner. These offer students the opportunity to demonstrate key Master level learning outcomes. There are 6 stated course goals which suggest at the conclusion of this course; the student will be able to: 1) apply skills of project management to the organization of research process, individually and/or in groups; 2) demonstrate an ability to critically utilize information resources for academic and applied research; 3) apply methods of quantitative and qualitative analysis to business research; 4) develop and apply skills of critical thinking and analysis to an organizational problem; 5) demonstrate an ability to communicate about business research topics for academic and professional audiences; 6) show an awareness of ethical issues during the research process and as part of the proposed business outcomes.

Aims and objectives for each project are established by the industry partner in consultation with responsible Faculty. The projects are known as ‘Applied Research Projects’ and topics have included e.g.: Employee Recognition programs; Performance Management systems; Internal Branding and Cloud Computing. The industry partner has so far been able to provide sufficient projects to meet demand and there has been a steady rise in participation from 2008 when 2 projects were offered involving 6 students to 2010 when 6 projects involving 18 students were offered.

According to Laughton and Ottwils (1998 p. 99) “to maximise the potential of projects for student learning and to provide a basis for assessment, the specification of learning outcomes is essential.” They further add “formulating learning outcomes for commissioned projects is neither easy nor unproblematic.” Advocating flexibility they point out that such projects are iterative, including negotiated elements and the need for students to retain ownership of projects if they are to benefit from the learning associated with a lack of predictable results.

### Advantages and risks in relation to course outcomes

Laughton and Ottwil (1998) describe 4 phases to describe the activities that make up commissioned student projects: initiation activities, engagement activities, completion activities and review activities. What follows is a description of risks and advantages experienced by all stakeholders over the duration of the commissioned student projects which have been related to course outcomes.

#### Table 1: Initiation Activities

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<td>Contextualising project</td>
<td>Timing within an academic year crucial Ethics of confidentiality etc need close attention</td>
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<td>Finding suitable clients and projects</td>
<td>Conveying understanding to all partners can be problematic Competition for most able students when more than one partner involved can be a risk</td>
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<tr>
<td>Formulating Outcomes</td>
<td>Need to meet both course objectives and project brief</td>
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<tr>
<td>Determining Assessment</td>
<td>Well established design in place but each new partner tests the assessment paradigm</td>
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<tr>
<td>Forming and briefing client groups</td>
<td>Can be well managed through slow and steady growth of partnerships. Rushed briefing a major risk</td>
</tr>
<tr>
<td>Costing projects/ allocating resources</td>
<td>Needs clear understanding in initial phases but can be modified over future cycles</td>
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<tr>
<td>Preparing profile of commissioning org</td>
<td>Facilitated by long term partnership is a major advantage.</td>
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<tr>
<td>Holding introductory meetings with clients</td>
<td>Always facilitated by experienced Faculty to avoid risks of unrealistic goals</td>
</tr>
<tr>
<td>Handling student expectations</td>
<td>Students expectations of ‘return’ from industry partner can be a risk</td>
</tr>
<tr>
<td>Past student experience</td>
<td>Developing a non-judgemental attitude in students with past experience relating to topic, organisation etc can be problematic</td>
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### Initiation activities

As far as course outcomes on the ARP’s described here are concerned, every cohort involved in the project has learnt to apply group skills of project management to the organization of research process (Outcome 1 above).
They learn how to work in a team, with industry specialists; they are encouraged to take the initiative, in planning and delivery of the project. At the initiation stage (See table 1) when formulating outcomes, the supervisors involved realize that in dealing with project objectives they need to meet both course outcomes and the project brief. It is inevitable that the business side of the project can become ‘seductive’ so that both the industry partner and students attempt to push project boundaries away from the academic brief. For this reason a strong Faculty presence to underline the need for academic rigor is imperative at initiation.

Timing is important in setting up initiation activities with a need to keep projects in academic year. The academic year starts in July and the first visit to the clients by the students is in mid September. Academic staff go to meet with clients before the academic year starts to discuss potential projects. These are chosen be the client. Problems have arisen in the past in Faculty chosen may not be interested in the project and this project may be dropped. Sometimes not enough Faculty exist with the right expertise to supervise projects. This is because projects in collaboration with industry cause additional pressures in a supervisor’s time and a limited number of academics have the right knowledge skills and abilities to supervise these projects.

Students are next given a presentation on the projects and interested students are then interviewed after they have produced a proposal. Those selected then go to meet the client for an exploratory meeting. Although the students have responsibility for establishing the brief, experienced Faculty are on hand to facilitate the agreements reached. The academic year ends in June and the ARPs have to be submitted mid July. However, the presentation to the clients of the group project is in mid May and this cannot be changed to fit with the academic year. The costing of projects and allocation of resources has changed over the progression of these projects, with the academic partner more willing to offer resources in the first cycle to ‘kick off’ projects with an increasing requirement that asks the industry partner to meet outgoings as the projects value becomes established.

It is sometimes, difficult to build initial knowledge and understanding with new partners. There have been instances where a new partner had showed an initial interest but their interest wanes when they realize how involved the partnership really is. This includes setting up ethical guidelines so that partners understand the ethical complexity in confidentiality and assessment issues when working on joint projects. Working with stable partner relieves this concern and acts as template for new contacts. In addition, working with a stable partner significantly helps in preparing briefings for students at the start, as well as an established collaboration enabling a steady, regulated growth in projects. Every new partner introduces ‘competition’ for the most able students, and some effort has to be expended in ensuring the quality and ability of representatives of student cohorts to work effectively with industry partners.

Topics studied are labelled by the partner as ‘useful to know’ rather than a “business risk”. This was relatively easy to ‘sell’ in the first cycles, but as the industry partner becomes more bound into topics in projects; increasingly a ‘business risk’ case may become built with added pressure on both sides. At every initiation phase, this has to be revisited to ensure projects remain relevant but not business-compelled.

**Engagement activities**

A review of engagement activities (See table 2) highlight a variety of issues. All students need to show an awareness of ethical issues (Outcome 6) during the research process and as part of the proposed business outcomes. This is mainly seen in relation to various confidentiality issues that can arise in projects like these. One group of students had an issue with the data they collected; interviews were conducted with some of the senior managers in the company including the CEO, as the students told the respondents that these were confidential. Initially the students refused to hand over the live interviews to managers at a lower level within the company despite signing a confidentiality agreement with the company explaining that all data belongs to them. The issue was resolved when students approached their participants requesting the release of the data to the company.

The second outcome, that students can demonstrate an ability to critically utilize information resources for academic and applied research starts with a comprehensive literature review on the projects subject matter, but is further tested by the need to chase target information from such database sources as Euromonitor, cross check against existing in house hotel data and then to process information gathered at interview from hotel managers. Students experience the ‘messiness’ and confusion that can impact a real life research project. In particular access to the industry partner can prove frustrating to the students who then realize they are not priority. Students learn very quickly to organize their project accordingly with an eye on practical logistics.

Students apply methods of quantitative (normally using SPSS) and qualitative analysis to business research and familiarity with these methods are seen as life-long learning skills for evidence based management (Outcome 3). A major advantage the students have is access to good library facilities. Often the industry partner is impressed by the academic knowledge or industry wide data students are able to obtain though time invested in the library or through plumbing Faculty expertise, and this lubricates the development of projects. A risk is that the students quickly understand that the gathering of data may be determined by the industry partner’s priorities and there have been many projects where students panic about access to data that is not forthcoming at
times convenient to students who are also juggling other courses and commitments. Sometimes there can be a
delay in data gathering over several months that de-motivates and confounds students. The Faculty in these
instances have a support role but still this remains the students’ ‘problem’ to solve.
Students continue with other courses on their academic program over the course of the projects. They have
to organize competing obligations and also constantly arrange group meetings on the project to their own
schedules. Chasing up data that is being made available at different times to different groups mean that students
sometimes have to keep their nerve to stay with the project. Sometimes students have not managed to maintain
calm and act inappropriately with the industry partner in panic or drop form the scheme. The facilitating Faculty
member is then required to smooth relationships with the partner or support student groups while ensuring
students retain ownership of the project.

Table 2: Engagement Activities

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<td>Negotiating outputs</td>
<td>Issue of client brief v. Student interest.</td>
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<td>Locating relevant sources of info</td>
<td>Good library facilities and Faculty expertise an advantage</td>
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<tr>
<td>Information gathering</td>
<td>Problems sometimes with industrial partners time frames</td>
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<tr>
<td>Info processing +analysis</td>
<td>Often has to be completed at speed and also students have to juggle competing commitments</td>
</tr>
<tr>
<td>Managing group dynamics</td>
<td>Problems if groups lose members. Handling student panic in situations where data not available a regular problem that affects the groups</td>
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<tr>
<td>Liaising with clients</td>
<td>Appropriate staff need to facilitate the project and can be hard to find</td>
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<tr>
<td>Monitoring progress</td>
<td>This is done by both the industry partner and student supervisor in consultation</td>
</tr>
<tr>
<td>Making tactical decisions</td>
<td>The client makes the decision whether the project can be used or the findings have served a purpose.</td>
</tr>
<tr>
<td>Handling student expectations</td>
<td>Students expectations of workable, executable projects are sometimes unrealistic. Problems can arise if there is a difference between what support will be provided by the industry partner</td>
</tr>
<tr>
<td>Past student experience</td>
<td>Lack of objectivity sometimes not seen until this phase and can compromise work with industry partner</td>
</tr>
</tbody>
</table>

Completion activities

Completion activities (See table 3) refer to the student’s ability to deliver a satisfactory academic and business ‘product’. In terms of synthesizing research findings, there are the advantages of students being able to build on previous research and use that as a starting point for the next cycle of projects. The requirement to develop and apply skills of critical thinking and analysis to an organizational problem brings the reality of business into the classroom (outcome 4). Students are briefed at the outset by the management team that they should use the evidence collected as a base to bring forward innovative and creative solutions. The hotel managers do not want text book examples which they themselves can read up on. In return they offer a clear business line as a response to student’s contributions, showing the students the practicality of their suggestions. Preparing outputs in the completion phase is always subject to issues of timing and pressure from other commitments that both students and managers need to address. These issues become imminent, imperative and to some extent irresistible for some students. Here the outcome requiring the application of project management skills to the organization of research process, individually and/or in groups is put under most scrutiny as the ‘product’ of the students endeavours is delivered.

When it comes to submitting outputs for assessment there is some risk with students needing to prepare both business and academic output and differentiating requirements. One course outcome clearly states that students need to demonstrate an ability to communicate about business research topics for academic and professional audiences. This outcome is tested by the presentations students do at nine months when they visit the Hotel Chain HQ to present in from of the managers who commissioned the projects and their academic supervisors. These presentations are not graded but are prepared with all care arising from the knowledge that the students are being judged by their professional peers and potential employers. One group of students did an excellent project on how the company could use training programs to promote their internal branding program. The
company instigated an internal branding program to reinforce their new core values. The group came up with a portfolio of training initiatives, which the company identified 10 which were selected to be used around the world, with the student’s permission. However, other groups of students were also working on other projects. Their efforts were assessed by a panel of senior managers to whom they presented their results. While on paper the internal branding project was one of the best projects that had been submitted the group could not present their finding very well to the disappointment of their manager of the company and also their academic supervisor. The company offers a prize for the best presentation and the students were very disappointed not to win this but this contributes to the reality of the ‘product’ of the presentation being rated rather than the ‘process’ behind the presentation. One outcome of this for the commissioned projects as a whole is that now the company offers a presentation skills training to all student groups, as they might in a business environment.

### Table 3: Completion Activities

<table>
<thead>
<tr>
<th>Activity</th>
<th>Advantages and risks Juskiw and Glanz (2012)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Synthesising research findings</td>
<td>Longitudinal nature is advantageous. Advantage of students working with industry professionals to propose solutions to real life, real time problems using qualitative and quantitative investigation.</td>
</tr>
<tr>
<td>Preparing outputs</td>
<td>Timing Pressure</td>
</tr>
<tr>
<td>Presenting outputs to clients</td>
<td>Risk of poor presentation offset by partnership with collaborator providing presentation training. Risk of inappropriate responses to different audiences. No guarantee of implementation despite quality of project</td>
</tr>
<tr>
<td>Submitting outputs for assessment</td>
<td>Group vs individual component can be problematic. Problems arise if the group loses a member</td>
</tr>
</tbody>
</table>

Determining assessment, because there is a group vs. individual component, can be problematic. There are (take out) Particular problems arise if the group loses a member or a member is not present for a crucial moment of the project. These issues are normally recorded and mediated by experienced Faculty, but final decisions on such assessments are made by an independent progression committee that takes a holistic view of an individual student’s contribution.

Following the presentation students are required to write up their particular topic within the group project as an academic project, complying with all required academic rigour expected of a dissertation (Outcome5). This requirement to differentiate between writing in line with both an academic and a business brief is an outcome that is a significant test for students of their abilities to complete the overall project satisfactorily. There can be a ‘sting in the tail’ of hard worked business proposals that students present in good faith. At the end of the day, the client makes the decision whether the project can be used or the findings have served a purpose. In one instance a group of students found that corporate training programmes were not implemented by sales staff in on country as they preferred to go back to using their preferred method. This is a realistic introduction to the working world and a clear distinction between handing in a good project for academic assessment, and finishing a good project that is subject to all the organizational constraints of authentic businesses.

**Review activities.**

The longitudinal nature of these projects is advantageous in terms of review activities (See Table 4). There is the constant ability to return to issues of assessment of performance, the evaluation of learning and how value is determined for the client with each cycle. Assessment of performance has shown that while these projects are pressured, there is a far greater chance that students will complete as compared to conventional dissertations. The group work element and desire to impress the industry partner is a strong motivator in delivery. Standards of work are generally high as a result of sustained effort and commitment to the project. It has been established that the project does require an individual piece of work and assessment to mitigate against lack of differentiation in the evaluation of group presentations and that this individual work echoes other experiences of this type of project in encouraging reflection on the part of students (Powers and Tiffany 2006; Goto, Pelto, Pelletier, & Tiffany, 2010).

The fact that some results can have unforeseen consequences is now built into the briefing for the program and exercises Faculty reflection as well as student learning. One group of student in their presentation to the panel reflected on what they had observed as an outcome of their qualitative research. Following their presentation on how present training had been dismissed as being of little value and generally ignored, the COO of the hotel chain immediately confronted the hotel chain provider of the internal training within the session to
explain why the lack of efficacy had not been discovered previously. It transpired that he had some idea that transfer of learning was not taking place and used the student project for investigation.

Table 4: Review Activities

<table>
<thead>
<tr>
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<tbody>
<tr>
<td>Assessing performance</td>
<td>High completion rate and standard of work</td>
</tr>
<tr>
<td>Appraising individual learning</td>
<td>Through individual section of project to allow grade differentiation</td>
</tr>
<tr>
<td>Evaluating learning</td>
<td>Both through assessment and feedback</td>
</tr>
<tr>
<td>Determining value for client</td>
<td>Mainly assessed through increased projects, implementation of projects and recruitment of students</td>
</tr>
<tr>
<td>Planning next set</td>
<td>Now routine with existing partner(s) but continuing search for new partners to extend possibilities for students</td>
</tr>
</tbody>
</table>

An important value within the institution is for all stakeholders to develop as reflective practitioners (Lashley 1999) and this example provided plenty of reflective dialogue not just for students but also for Faculty group on the project. The initiative gives the company an opportunity to view students as potential recruits and further it highlights the industry partner’s profile within the institution for recruitment in general. A fair number of involved students have been offered employment through their participation in the scheme confirming these types of projects are seen to improve employability and networking (Smith, & Clark 2010; Dickens & Watkins, 1999; Barthorpe & Hall, 2000; Gagnon, & Smith 2001) and in turn reinforces the link between the institution and organisation.

Handling student expectations and past student experience: The missing issues

Laughton and Ottwil (1998) have provided a very important and useful matrix to structure commissioned student projects. In particular their matrix covers the relationship between the academic and industry partner. We believe there is an additional dimension to be added in two phases of the matrix and that is student expectation of the project. It is fair to say that student involvement can be separately modeled in pedagogic terms but the one student-centered area which rises to the fore in relation to academic and industry partners is that of student expectations of the collaboration.

Some students at the initiation stage have little understanding of the commitment already given by the industry partner in terms of man hours and expertise. There are always suggestions at the start of the projects by some students that they should be given some sort of ‘consultancy’ compensation for the projects without realizing students have no actual responsibility to deliver in that they have the ‘right to fail’ a project and mostly limited past experience that would underpin such compensated intervention. For this reason, such projects are never given as the only means of completing a degree, enabling students who feel this study should be compensated to find another route to graduation. The choice is important in ensuring students do not feel ‘exploited’ in their work with the industry partner.

Problems can also arise when promises are made by an industry partner (e.g. the provision of accommodation in remote locations for students) that are then not honored. This has an impact on the students relationship with the academic institution, so it has become necessary to inform students to treat all relationships with an industry partner in a business like way, with agreements committed to paper.

A further dimension arises in that sometimes students have previous experience of a company and this interferes with a non-judgemental stance to the research undertaken which is not obvious when projects are planned and only becomes observable during project operation. One group in particular, with a member that had worked on a placement with the company, held a session with the client on a project which they thought would be of interest to the client. Outcomes were not really formulated by both parties. As the project progressed the group was demanding access to data that the industry partner did not posses. Overall this led to frustration on behalf of the group, and the industry partner. The industry partner informed all groups that they would be provided with all support mechanisms on their chosen project (not what the student’s thinks the partner wants) that will hopefully add value. Sometimes the objectivity of students is compromised not by past experience of the industry partner, but by a subjective attitude to the subject under review. While this is an issue commonly addressed in terms of academic rigor, the addition of a third party who may encourage the student’s bias is an added factor to be worked on.
Conclusion
Following on from the description of the conceptual model underlying commissioned capstone projects on an MBA course in International Hospitality Management (Juskiw & Glanz 2011), this paper mirrored Laughton, & Ottwils (1998) attempt to map underlying structure of commissioned student projects. It sought to discover if there are common advantages and pitfalls for the stakeholder groups involved in such projects to those previously identified, and what further issues can be added to Laughton, & Ottwil’s (1998) matrix.

So many of Laughton and Ottwil’s (1998) elements were relevant that we must conclude that their matrix is relevant, appropriate and useful to projects running some 15 years after publication. There is a paucity of literature about such projects still and so this paper goes some way to adding to Laughton and Ottwil’s practical approach to pedagogy in this area.

We have noted additional structural parts identified through this process. These relate especially to student expectation and the past experience they bring to projects. It could be these elements were less clearly defined or identifiable in past cohorts of students, and are possibly more evident in the ‘Generation Y’ student body (Cassidy 2010), or an international student body. It would be difficult to generalize from these projects and more research needs to be done in this area to develop the student perspective on such projects.

References
Creating adaptive experts by offering graduates a realistic learning environment

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The professional world graduates enter is becoming more complex and volatile (IBM, 2010), demanding greater adaptive performance from employees (Smith, Ford, & Kozlowski, 1996). To perform at a high level, graduates must be able to deal effectively with novel problems. This ability is part of adaptive experts. Those experts differentiate themselves from routine experts in their flexible knowledge structure, their innovative capacity and their competence to look for alternative solutions (Hatano & Inagaki, 1986; Schwartz, Bransford, & Sears, 2005). For graduates to acquire this type of expertise they need to be confronted with a wide variety of learning experiences (Barnett & Koslowski, 2002; Hatano & Inagaki, 1986). However, most learning environments do not provide their graduates with these opportunities. As a result, graduates have difficulties to transfer the acquired concepts to situations which do not share similar characteristics.

This paper will present the design and evaluation of a learning environment for graduates which aims to foster the development of adaptive expertise by confronting them with a learning environment substantially different from what they are used to. Novelty in and diversity of learning experiences are central features in this environment to foster the development of adaptive experts.

Learning Environment

A learning environment stimulating growth in adaptive expertise needs to contain the following characteristics:

First, a high variety of learning experiences. This variety in experience relates to the acquisition and application of knowledge and results in a deeper understanding of domain knowledge (Barnett & Koslowski, 2002; Hatano & Inagaki, 1986; Van Merriënboer, Jelsma, & Paas, 1992). Secondly, graduates should be exposed to a team climate which supports learning (Han & Williams, 2008; Hatano & Inagaki, 1986) as learning happens in a social context (Tenenbaum, 2001).

The first characteristic, variety in experiences, is expressed via team composition, the project assignment, and the situations arising out of working on the project. Graduates are working in multidisciplinary teams on projects provided by companies and governmental organisation. This makes the work setting substantially different from what they are used to as graduates are working on real projects whose assignments are ill-defined at best. Graduates also have to go through a career counselling and selection procedure before being selected to work on a project. This requires graduates to reflect on their level of development and how their knowledge can add value to a project’s outcome.

The second characteristic, team learning climate, is ensured by providing every team with a coach. The role of this coach is to support the team to create a high quality product for the company. In addition to this, every student is provided with an individual coach, who guides the students’ individual development towards adaptive expertise.

By creating such a learning environment graduates are not only prepared for adaptive performance, but they are also placed in an non-formal learning environment, as the main goal of the project is to deliver a product to the company. Secondary to this, graduates are learning how to become adaptive experts and how to work in a multidisciplinary team. In order to support this informal learning, graduates are required to make regular entries in their personal development portfolio and meet their coach. By making learning deliberate graduates’ understanding of their domain is deepened, as it pushes them to make their tacit knowledge explicit (Eraut, 2000).

Learning Model

To evaluate the learning environment a model was conceived. The learning model is built on prior studies in two areas: Firstly, the development of adaptive expertise in university settings via the instructional format of Challenge-based education (Martin, Rivale, & Diller, 2007; Pandy, Petrosino, Austin, & Barr, 2004). Secondly, the learning model is strengthened by including findings from the adaptive performance field (Chen, Thomas, & Wallace, 2005; Pulakos, Arad, Donovan, & Plamondon, 2000). This provides insights into what cognitive and behavioural aspects graduates need during work (Ford, 1997).

The learning process towards adaptive expertise is a two-layered process, visualized in Figure 1. The core layer is individual learning with adaptive expertise as the goal. Adaptive expertise is composed of two components: 1) A domain knowledge with well established links between domain concepts but also with links to concepts outside of the domain and 2) the ability to adapt to novel situations. The ability to adapt to novel situations is, amongst others, acquired via the development of divergent and critical thinking. Divergent thinking is the process by which an individual develops ideas (Runco, 2008) and is a predictor of a person’s ability to stay
away from routine solutions (Ames & Runco, 2005). Critical thinking is goal-directed thinking which includes the evaluation of the thinking outcome and process (Cohen, Freeman, & Wolf, 1996; Halpern, 1998). It contributes to the development of both components of adaptive expertise: The knowledge structure is made more flexible as critical thinking promotes linkages within and between domain concepts. Critical thinking adds to the second component by assessing the match between ideas of how to adapt and demands of the work environment.

Figure 1: Multi-layered Learning Model

The second layer of learning is team learning. This provides the social context and influences individual learning (Decuyper, Dochy, & Van Den Bossche, 2010). As mentioned above, team learning contributes to the development of adaptive expertise by providing additional variety in learning experiences. Team learning is composed of processes, intermediate and final products which influence each other (Ellis, Porter, & Wolverton, 2008) and individual learning (Boyer & Roth, 2005).

Data will be collected in Spring 2012.

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Student Associations: The Promotion of Cultural and Social Engagement of Future Managers

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Abstract: In this paper we argue that student associations at Business Schools are the key to promoting cultural and social engagement in future business graduates. Student associations are extremely important at French business schools and are run like companies where they manage sizeable budgets (up to €1.5m in some cases) and organize major events and activities. Some conceptual issues regarding cultural and social engagement will be outlined prior to a brief historical perspective of associations in French Higher Education and more particularly at French business schools. Perceptions of the presidents of major French Business Schools were collected to ascertain their cultural and social engagement.

Introduction

In 2012, cultural, social or civic engagement has become a clear and expected imperative in many companies. Whether the focus is on ecology, the environment, human rights, culture, sport or even education, most industrial and business sectors are incorporating some kind of engagement into their policies. Higher Education in France, especially within its Grandes Ecoles (Business and Engineering Schools) and Instituts d’Etudes Politiques (Institutes of Political Studies), is a formidable laboratory to study and apprehend how socially engaged professionals are defined.

French Business Schools have a long history of student association engagement. These student societies were initially set up within business schools in line with clear individual economic and professional goals to provide services to companies or for specific sports. A typical example of a professional student association is Junior Etudes, an association that carries out market studies for companies. However, the last two decades has seen the development of different types of student societies such as associations dealing with student social life; leisure activities; humanitarian and social causes; and arts and culture. All of these more recent student associations have a cultural, altruistic, civic or societal engagement inherent in their mission. Both types of student associations, professional and civic, now co-exist within business schools.

At a business school level, the setting up of social, civic and altruistic student association has been accompanied by an educational offer with courses such as Sustainable Development; Economic Ethics; Diversity Management; Corporate Criminology and other risks linked to corruption and fraud; Political Ecology; Social and Solidarity Economics, etc. Student can now take specific courses that will directly feed into their practical student association work, all of which takes place within the business school environment.

At a human capital level (Becker, 1964; Schultz, 1961), the business student can be considered as a rational economic agent that is looking for a medium to long-term return on investment in his association work with the objective of selling his experience to a future employer. This can be considered as a competitive advantage on the market place as the student can provide evidence of the acquisition of certain skills (Baldé et al., 2009). This association work also simply reassures the student’s future job prospects as demonstrated by Muxel (2001) in her political science and sociology studies of young people.

As well as developing key competencies and skills that are required in the workplace such as leadership; team working; cultural effectiveness; analytical skills; interpersonal awareness; creativity and innovation, etc, students also create synergies between their practical association work and theoretical knowledge in business discipline (especially project management; strategy; marketing; finance and accounting) and hone their entrepreneurial mindset while helping others. Many of the associations win prizes or awards for their outstanding achievements, whereas a large number are rewarded via the gratitude of the people they help. Students are given time to work in their student associations as this forms an integral part of the business schools teaching strategy.

In this paper we will take the example of EDHEC Business School, which with approximately 50 student associations, is one of the pioneers regarding student associations in France. We will first of all clarify some theoretical definitions prior to discussing the merits of student associations within business schools and their link with educational endeavours and draw up a typology of the different types of student associations. We will then report on the perceptions of presidents of student associations in order to ascertain their associative engagement and demonstrate how important and useful student associations are.
Cultural and Social Engagement

Social and civic engagement was identified by the European Commission as one of the eight key competencies for lifelong learning (EU 2006). More precisely, social competence is defined as “personal, interpersonal and intercultural competence and all forms of behaviour that equip individuals to participate in an effective and constructive way in social and working life. It is linked to person and social well being. An understanding of codes of conduct and customs in the different environments in which individuals operate is essential”, whereas civic competence “and particularly knowledge of social and political concepts and structures (democracy, justice, equality, citizenship and civil rights), equips individuals to engage in active and democratic participation (EU 2006: 2). Social competence has also been included in the OECD definition and selection of key competencies (OECD 2005) and is included within the competency category 2: Interacting in heterogeneous groups, one of the three categories of key competencies defined, the other two being: 1) Using tools interactively and 3) acting autonomously. The first competency in category 2 is the ability to relate well to others whereby it “allows individuals to initiate, maintain and manage personal relationships with, for example, personal acquaintances, colleagues and customer” and “assumes that individuals are able to respect and appreciate the values, beliefs, cultures and histories of others in order to create an environment where they feel welcome, are included and thrive” (OECD, 2005: 12). Within this category, the importance of social capital is also stressed with the argument being that one of the potential sources of inequality in the future could be differences in the competence of various groups to build and benefit from social capital. Now the benefits of social capital greatly depend on the theorists that have worked on this concept. For Bourdieu (1986) and Lin (1999) the focus is placed on the positional aspects of social capital, whereby Lin (1999) links social capital to success and Bourdieu (1986) to power. For Coleman (1997) social capital is investigated as an attribute to social groups at community level, with Putnam (2000) seeing it as an attribute at nation-state level. For the purpose of this paper, the authors argue that being part of a student association is a first key step in developing social competence and social intelligence (Goleman, 2006), social skills, intercultural competence and soft skills. This is enabled by the prolonged relation with other students, the cooperation, collaboration and team working, the management and resolution of conflict and the effective management of emotions within the association and the consequent social capital acquired by sharing this experience. Cultural engagement suggests the promotion of activities beyond teaching and research which creates cultural value outside the academy. There is little research on the cultural impact of university activities outside the academy. Hamilton & Sneddon (2004) looked at cultural engagement and knowledge transfer at Scottish universities and concluded that the university has a huge role to play in the cultural life of the community it is based in and in the cultural sector in general. They also suggest that one of the major barriers is the lack of institutional and strategic focus and coordination. They call for more clarity around the question of when cultural engagement is knowledge transfer and how it is assessed and measured and they espouse a quantitative and qualitative approach to acquire a long term vision of how cultural engagement contributes to the national economy.

Student Associations in Higher Education

If we look at the notions of engagement and social responsibility of students, it is interesting to note that student associations have existed in academia long before issues such as social and environmental responsibility became popular in companies or before the social trends of social economics and solidarity. Since the very beginning, business schools have been seen as places which influence student mobilisation regarding social and cultural engagement. In fact, business schools have always been reputed for favouring the setting up of student associations even more than universities. We will look at the reasons for this later on but first it is important to ask ourselves when the first student mobilisation started.

The Association Anima Fac¹, a national network of student associations created in 1996, published an article entitled ‘Contributions and Analyses of Student Associations’ in one of their first issues, where they describe a revival of interest in student associations and the importance of this collective socialisation as a success factor at university. Patriat (1998), Professor of Political Science and President of the University of Bourgogne, in his analysis of the history of student associations in France has distinguished three main periods in its 40 year history:

The first period in the 50s and 60s sees two types of associations: trade union and cultural associations, both of which had the common characteristic of being autonomous from the university;

The second period at the end of the 1960s was strongly influenced by key events (May 1968; the Faure Law² and the changes regarding the integration of students into the administration of universities; and massification). Cultural engagement persists and the students are mobilised by their search for new directions in their lives.

¹ Anima Fac Website: http://www.animafac.net/la-vie-du-reseau/

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The third period started at the beginning of the 1980s and according to the sociologist, Valerie Becquet (2004), is marked by what she terms as “associationism”, which is imposed, egotistical, and commercial and aimed at using student activity for mainly personal purposes (to find an internship; be recruited; capitalise on investment; etc.)

We can see here three main periods with the first being autonomous entities; the second being influenced heavily by external societal events and a personal search for something new; and the third focused more on personal gain. Cultural engagement is one of the constants that can be observed throughout all three periods.

From the middle of the 1990s to the present day, a fourth period can be observed with a new engagement emerging regarding environmental and social responsibility and solidarity (Observatoire de Fondation de France Report 2007). This is true both at university and especially in French business schools over the last 10 years. Recent research by the Association Anima’fac which looked at campus life and student associations (Gratacos, 2009) found that the universities are lagging behind as regards the number of students engaged in student associations. Student representation in trade union movements or within a corporatist tradition finds its place within the university, whereas the non-representative student association engagement suffers from a lack of recognition within the university system. This phenomenon is not true at business school possibly for historical reasons due to political neutrality, which leaves room for more creativity to work on diverse associative projects. Even if many consider that student association involvement presents many advantages such as civic education, social responsibility and solidarity to name but a few, the student environment is not always conducive to collective mobilisation. Many factors will determine student involvement and participation in student associations such as proximity to the university or business school, which is a major issue nowadays; student financial resources and whether students have to work to pay their studies; and the university/business school position regarding student associations to include their policy on associations and the provision of space and resources. For example, business schools provide dedicated space for student association, which is not always the case at university.

Student associations that train business students to be more aware of social, humanitarian and solidarity issues have never been more relevant in French society. Over the past few years, there has been a plethora of incidents within French companies that point to a lack of employee wellbeing due to deplorable management behaviours. DeGaullejac (2005; 2011) has reported on the employee being treated as a resource at the service of the company development and that these corporate management practices lead to suffering, burnout, and many other psychological illnesses. The finger has been specifically pointed at business schools (Veltz, 2007; Noiville, 2009), who train elitist technocrats that are totally disconnected from social reality. The student association, therefore, can fulfil the objective of constructing the business student socially and that in conjunction with a range of integrated pedagogical initiatives to formalise the education of social, solidarity and human relations. Some recent initiatives also point to this problem an example being the manifesto of disconnection of the elites (Volkwein and Mauvais, 2011), which has the following objective: the integration of a real and regular experience of social reality in university and Grandes écoles courses.

Students Associations at EDHEC Business School

Here we will set out the various student associations that exist within EDHEC Business School and outline their missions and what they are trying to achieve both culturally and socially. There are 49 student associations that first year students can join for a period of two years. The first year students are recruited by the second year students for key positions with the student association. The student association is run like a small company. You first year students can join for a period of two years. The first year students are recruited by the second year missions and what they are trying to achieve both culturally and socially. There are 49 student associations that here we will set out the various student associations that exist within EDHEC Business School and outline their missions and what they are trying to achieve both culturally and socially. There are 49 student associations that first year students can join for a period of two years. The first year students are recruited by the second year students for key positions with the student association. The student association is run like a small company. You first year students can join for a period of two years. The first year students are recruited by the second year missions and what they are trying to achieve both culturally and socially. There are 49 student associations that here we will set out the various student associations that exist within EDHEC Business School and outline their missions and what they are trying to achieve both culturally and socially. There are 49 student associations that first year students can join for a period of two years. The first year students are recruited by the second year students for key positions with the student association. The student association is run like a small company. You first year students can join for a period of two years. The first year students are recruited by the second year missions and what they are trying to achieve both culturally and socially. There are 49 student associations that here we will set out the various student associations that exist within EDHEC Business School and outline their missions and what they are trying to achieve both culturally and socially. There are 49 student associations that first year students can join for a period of two years. The first year students are recruited by the second year students for key positions with the student association. The student association is run like a small company. You first year students can join for a period of two years. The first year students are recruited by the second year missions and what they are trying to achieve both culturally and socially. There are 49 student associations that here we will set out the various student associations that exist within EDHEC Business School and outline their missions and what they are trying to achieve both culturally and socially. There are 49 student associations that first year students can join for a period of two years. The first year students are recruited by the second year students for key positions with the student association. The student association is run like a small company. You first year students can join for a period of two years. The first year students are recruited by the second year.

1. Student Life – this category relates to all the clubs, societies and associations that make the student’s life better both on and off campus. At EDHEC this includes the following associations: BDE; BDS; EDDC; Edhec Jobs Management; Ed’MyCible; Edhec UN; ETNA; Open Up and Transaction EDHEC.
2. Sports Activities to include all those associations to do with sporting activities for example: 5ieme Set (tennis); Club Voile (sailing); CCE (sailing regatta); Destination Glisse (winter sports and surfing, etc.); Edhec Adventures (adventure sports); Edhec Jumping (horse jumping); La Gazzetta dell’EDHEC (interviewing sports stars); Rugby; Run’EDHEC; Team Golf EDHEC.
3. Leisure and Practical Lifestyle – this category is dedicated to leisure time activities and includes: Dionysos (wine-tasting); Flagrant Delice (gourmet food club); Ch’ti (city guide); Le Scandaleux (web TV); Melkisedhec (Christian Society); Un de Sens (raises awareness of the senses).
4. Humanitarian and Social Issues – this category involves humanitarian and solidarity work in the region and also abroad and includes: Ad’Lib (music events); Cheer’UP; Ecothink (sustainable development auditing); Generation Mix (visiting senior citizens); Human’East (helping children from the Carpathians,
Ukraine); Le Père Noël est il un Rocker (music event for charity); L’ombre de la Plume (prison visits and classes); Music’All (musical organized with intellectually challenged children); Objectif Réussite (tutoring and outings to promote social cohesion); Schola Africa (building a school in Burkino Faso); Vive les Vacances (offering holidays to children from underprivileged areas);

5. Art and Culture – mostly art and cultural events to include Arts society; Cin’EDHEC (cinema) Cite Pub (advertising); Electrochoc (sound mixing); Ext’Asie (Asian culture); L’Agora (Debating); La Clé des Planches (theatre); Lazo Latino (Latin culture); Prix du Court (short film festival); Talons Aiguilles (Fashion).

6. Business Services – this category concerns those associations that provide business services to companies and include: Edhec Junior Etudes (conducts studies for businesses); and Total Edhec Entreprendre (Young Entrepreneur Competition).

For a complete list of all the associations at EDHEC Business School as well as their main missions and when they were founded, see Appendix 1 – Student Associations at EDHEC Business School.

Student Perceptions of Association Engagement

32 presidents of the 49 student associations were interviewed regarding their engagement within their association. 44% reported having had an engagement within an association prior to coming to business school. The associations were in order of frequency; sports associations; the scouts; music and singing; cultural and humanitarian associations. Few students continued this association engagement after entering EDHEC expect for those who continued a specific sport, or were passionate about a pastime for example in the case of choir singing.

The students opted for a particular student association for various reasons to include simply liking the project on offer, their passion for the event or project; and because it adhered to their value system. Students strongly emphasized the added value of belonging to a student association, the professionalization aspect “professionalisation and coherence with my professional project”, which they believed gave them specific experience, something they could sell on their CV “a professional association, which is interesting from a recruiter’s point of view” or “to improve the contents of my CV”. They also focused on the specific experience gained, the responsibility they acquired while interacting with real professionals in the business world: “organization of projects, the responsibility and the possibility to negotiate with professionals”. They also appreciated the challenging, interesting nature of the experience which enabled them to get involved in concrete and real group projects: “the desire to invest myself in a real project in a group”. The students also gave other reasons to join an association such as the good ambiance, the members, friendships they made, the solidarity, team spirit, the dynamism, and the activities proposed as well as for simply altruistic reasons. They also pointed to the network they could build up: “to give a sense to my studies at EDHEC, construct a common project and integrate a network of people” and enabling them to surpass themselves.

The majority of students defined their belonging to a student association as an engagement. This engagement was defined using 8 specific types of engagement:

1. Personal engagement “to lead the project from A to B in collaboration with other members in the association”
2. Civic engagement: “to raise awareness on questions relating to third world development”
3. Solidarity engagement: “to lead humanitarian missions”.
4. Social engagement: “to provide quality services to other students; to make the campus come alive (evening events; games, conferences and debates); the desire to improve student life”.
5. Administrative engagement: “it is administrative based on the my responsibilities within the association”
6. Professional engagement: “major responsibility and working as if you were part of a company”.
7. Cultural engagement: “to promote the African culture”.
8. Environmental engagement: “as I am responsible for the environment in the organization of our trek, it is very important that sport and the environment are linked and that one respects the other”.

Regarding the main things gleaned from this engagement, the students reported the acquisition of key knowledge in specific disciplines: “knowledge in many areas: logistics, managing partnerships, negotiating with clients and public institutions, etc”. They also reported on the feeling of belonging to a group of people who are working on a common project: “the belonging to a group of one’s peers, the feeling of being supported in ones work and the participation in a common project”. The students reported on having developed an impressive list of competencies to include: self-confidence; responsibility; capacity to work with others; conflict resolution;
communication skills; organization skills; project management; teamwork; autonomy; multitasking; working to a deadline; rigour; initiative; maturity; and human relations to name but a few. The students emphasized the fact that association work gave them practical management experience “a real managerial capacity; an aptitude to manager projects from A to Z; we grow by adapting to the group and make friends and a network”; and “it is a fantastic management experience, we evolve in a team, with the different departments and members, etc. We must ask for help but also give it; we must be able to tell a colleague that he is not working well for example, which is not easy”. One student described student associations as human, professional and cultural experience as follows: “a human experience via relations, conflicts and carrying out projects; a professional experience via objectives, work and perseverance and a cultural experience via discovery and learning”. Students reported self development and growth: “I grow a little bit every day from my association engagement”, whereas others focus on the practical issues: “it makes me more responsible, teaches me how to work with others and accomplish missions” or “undeniable practical competencies, socialization, teamwork, stress management and simply unforgettable moments”. Students also reported that they felt useful as they helped others: “the impression of improving thing, even if in a small way with better vision of action, it is possible to be entrepreneurial and make the impossible happen”.

Concerning where students positioned their student association work within their studies, many referred to the theory/practice link between the theoretical coursework and the practical management of a student association and hence the place to put the theory into practice: “at school, our practical learning happens above all in our associations. Its “real life”. The majority of students make an explicit link between their studies and their association, where they see the direct link to their classes (especially project management, organizational behavior, accounting and budgeting, IT classes, etc.) and seminars (team working; negotiation techniques, interviewing, etc.). They all reported devoting some time each day to their associations and considered this involvement as very important for many reasons: to acquire real knowledge; to adopt a different approach to management; to develop interpersonal relations; to acquire professional experience; to consolidate knowledge, capacities and techniques learnt in class; to manage people and difficult situations; to fundraise; to organize events; and become more responsible and work with others, etc. The student association has become such a major part of a business student’s life that it is their social life at school: “it is the place where student life is expressed”. The downside of this is that the student associations have taken on such an importance that those who are not members of any association, experience exclusion and are marginalized: “now it has become unhealthy as you do not feel good in your school simply because you do not have an association. It is the case with certain students who are marginalized by the system”.

Students involved in student associations reported that this experience could be sold on a CV, will differentiate them on the job market and enables them to acquire a support network, which could lead to potential employment later: “my association enables me to have a support network and greater recruitment potential”. In front of a potential recruiter, students wished to sell their associative engagement as real professional experience: “during interviews, I will insist a lot on my associative engagement, it is a way for me to show that I can lead teams and manage unexpected situations”, but were aware of the limitations of this: “sometimes it is a little difficult with recruiters as certain associations are not appreciated while others are welcomed”. Some students chose their association with the intention of making a career in the area: “I would like to find a first job in relation to the environment by capitalizing on my experience in the association”, whereas others felt that it was a demonstration of interest: “you can see the association as a significant argument to show that we are interested in a particular sector”.

The majority of the students attested that their future engagement would certainly not take up as much time as during their studies but they intended to stay active within an association in parallel to their work. As regards their former associations, they saw themselves as taking up a consultative role, providing donations and advice and remaining part of a support network for other generations of students in their association. Some reported have a debt to their association that helped them to learn so much: “I will remain loyal to my association for all they have given me during my studies”. Some associations have an alumni network and a newsletter over 19 generations for example, which means that there are “internal” recruitment possibilities via partnerships, internships, etc. Many students intended to maintain the link with their association via the events organized every year: “I think I will come back and relive the events that I am organizing at the moment and listen to the new students to give them advice. I sometimes contact the alumni of my association who occupied my function to get advice”.

**Conclusion**

This paper outlines the importance of student associations for the personal (meeting likeminded people; sharing a passion), altruistic (to help others, be useful) and utilitarian (to learn, have fun) reasons in line with research by Becquet (2007) but the business students questioned in this study also reported more practical reasons (such as professionalizing or gaining experience to sell to a potential recruiter) as well as social capital dimension, i.e. creating networks for future employment prospects. They also identified 8 types of engagement: personal, civic,
solidarity, social, administrative, professional, cultural and environmental, which points to a changing perspective on student association involvement and what young business graduates are looking for from a student association. The fourth period in the history of student associations is confirmed doubly in this paper: first of all by the sheer number of social and humanitarian associations that has been set up in the last two decades and secondly by the way the student presidents describe their associative engagement, with a clear focus on environmental, social and solidarity issues.

Students perceive their student association as a link between theory (disciplinary knowledge, competency and self development training learnt mainly in the classroom) and practical management practice. According to Mintzberg (2004; 2009) you can only teach management to practicing managers and student associations provide valuable experience to students who work and put theory into practice and develop a plethora of skills and competencies as well as having the larger objective of becoming more mindful about humanitarian, civic, social, solidarity and environmental issues, which will directly impact on their professional lives and future careers.

One of the findings of this research was the possibility of being persona non grata (or in EDHEC speak a Nobod) if you did not belong to a student association. As student associations are an integral part of business school student life, belonging to one means having an on-campus and off-campus social life. This social exclusion from student associations seems paradoxical and is rather worrying as students demonstrate altruism toward significant unknown others while excluding their fellow students.

References


Appendix

<table>
<thead>
<tr>
<th>Name of Association</th>
<th>Mission</th>
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<tbody>
<tr>
<td>Student Union</td>
<td>Organises the biggest French induction seminar in terms of participants as well as organizing student life. Budget: €625,000</td>
</tr>
<tr>
<td>Sports Association</td>
<td>Organises training sessions and tournaments and all student sport events on campus. Budget: €80,000</td>
</tr>
<tr>
<td>ECDC – Edhec Community for Dynamic Culture</td>
<td>Promotes urban trends by organizing window-dressing for empty spaces, a BMX contest and street golf session. To give students access to unconventional events and open up their horizons.</td>
</tr>
<tr>
<td>Edhec Jobs Management</td>
<td>The second largest job service organisation in France, to find part time jobs for students. Budget: €120,000</td>
</tr>
<tr>
<td>Ed’MyCible</td>
<td>Help new students integrate the campus, organize. Budget: €45,000.</td>
</tr>
<tr>
<td>EDHEC United Nations</td>
<td>To take you to the UN in New York to debate on ideas with other students from around the world. Budget: €20,500.</td>
</tr>
<tr>
<td>Etna (EDHEC Television)</td>
<td>To provide audiovisual services to the school and to business. Budget: €60,000.</td>
</tr>
<tr>
<td>Open’Up Lille</td>
<td>To look after international/visiting students and organize trips, parties and spring break. Budget: €30,000.</td>
</tr>
<tr>
<td>Transaction Edhec</td>
<td>Finance association. Organize the Finance Cup of France and an investment club. Budget: €70,000</td>
</tr>
<tr>
<td>2ème Set</td>
<td>Organizes the KPMG Tennis Master Tour, the largest French student tennis tournament. Budget: €120,000</td>
</tr>
<tr>
<td>Club Voile EDHEC (Sailing Club)</td>
<td>Take part in the CCE (Course Croisière EDHEC) sailing race and organize the Inter-Association Regatta. Budget: €60,000.</td>
</tr>
<tr>
<td>Course Croisière EDHEC (EDHEC Sailing Race)</td>
<td>Organise the international sports event with 3,000 competitors and 10,000 visitors in three competitions held on sea, land and sand. Budget: €1.8 m</td>
</tr>
<tr>
<td>Destination Glisse (Board and Winter sports)</td>
<td>Organize surfing, board sports and the 2nd largest internal EDHEC event – Semiski. Budget: €100,000</td>
</tr>
<tr>
<td>EDHEC Aventures</td>
<td>Organises a multi-sport event in the countryside – mountain-biking, hiking, rafting, canyoning. Budget: €74,000</td>
</tr>
<tr>
<td>EDHEC Jumping</td>
<td>Organises a 3-day international show jumping competing with 170 competitors per day and 3,500 spectators. Budget: €130,000</td>
</tr>
<tr>
<td>La Gazzetta dell’EDHEC (2010)</td>
<td>Interviews major sports stars and reports on major sports events. Budget: €10,000</td>
</tr>
<tr>
<td>Rugby Group EDHEC</td>
<td>Takes part in national inter-school rugby competitions. Budget: €10,000</td>
</tr>
<tr>
<td>Run EDHEC</td>
<td>Organises La Nocturne Lille Métropole. Budget: €</td>
</tr>
<tr>
<td>Team Golf EDHEC</td>
<td>Organizes an inter-school golf tournament in Le Touquet – The Smuggler Golf Cup. Budget: €30,000</td>
</tr>
<tr>
<td>Dionysos (oenological society)</td>
<td>Promote the world of wine and spirits via tastings and cocktail events and an inauguration night for Champagne. Budget: €10,000</td>
</tr>
<tr>
<td>Flagrant Delice (EDHEC Gourmet Food Club)</td>
<td>Organise food-related events: gastronomic trips, cookery lessons, dinners, etc. Budget: €3,000</td>
</tr>
<tr>
<td>Le Ch’ti</td>
<td>Produce the best address guide for the area in and around Lille and publish 250,000 copies each year.</td>
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19th EDINEB Conference: The Role of Business Education in a Chaotic World 26
<table>
<thead>
<tr>
<th>Organization</th>
<th>Description</th>
<th>Budget</th>
</tr>
</thead>
<tbody>
<tr>
<td>Le Scandaleux (magazine, website and TV)</td>
<td>Produce a magazine, manage a website and make programs for web TV</td>
<td>€650,000</td>
</tr>
<tr>
<td>MelkisEDHEC</td>
<td>Organise Christian services, weekends, conferences, etc.</td>
<td>€30,000</td>
</tr>
<tr>
<td>Un de sens</td>
<td>To raise awareness on the use of the five senses via events</td>
<td>€3,000</td>
</tr>
<tr>
<td>Ad lib</td>
<td>Organizes music events at EDHEC and in Lille area and promotes the latest in music via its blog</td>
<td>€3,500</td>
</tr>
<tr>
<td>BDA (Bureau des Arts)</td>
<td>Produce the EDHEC Yearbook, organize an Arts week, cultural shows and film previews</td>
<td>€700</td>
</tr>
<tr>
<td>Le Scandaleux (magazine, website and TV)</td>
<td>Produce several short films and have a blog on film in all its guises</td>
<td>€10,000</td>
</tr>
<tr>
<td>CinEDHEC (Film Club)</td>
<td>Organises student advertising competition – Les Etoiles de la Pub and manage a junior communications consultancy agency</td>
<td>€30,000</td>
</tr>
<tr>
<td>Electrochoc (2010)</td>
<td>Organises an inter-school soundmixing competition with Sidaction and Spiritek (association for risk-prevention in festive environments)</td>
<td></td>
</tr>
<tr>
<td>Ext’Asie</td>
<td>Promotes Asian culture in all its forms at EDHEC</td>
<td>€500</td>
</tr>
<tr>
<td>L’Agora (Debating Society)</td>
<td>Organise 12 conferences per year and debates on current affairs and politics.</td>
<td>€20,000</td>
</tr>
<tr>
<td>La Clef de Planches (Drama Society.)</td>
<td>Produces plays and dramas</td>
<td>€1,500</td>
</tr>
<tr>
<td>Lazo Latina</td>
<td>Promotes Latin-American culture at EDHEC and in the Lille area including the Semana Latina – profits go to development projects in Latin American</td>
<td></td>
</tr>
<tr>
<td>Le Père Noël est il un rocker?</td>
<td>Concept – one toy donated = one concert entrance = one happy child – collects toys for underprivileged children for Christmas</td>
<td></td>
</tr>
<tr>
<td>Music’All (Musical Society)</td>
<td>Produce the EDHEC musical each year with the help of intellectually challenged children</td>
<td>€40,000</td>
</tr>
<tr>
<td>Prix de Court (Short Film Society)</td>
<td>Organises the annual Festival of European Cinema – a one week short film festival</td>
<td>€80,000</td>
</tr>
<tr>
<td>Talons Aigüilles (Fashion Association)</td>
<td>Promotes young fashion designers from the North of France via EDHEC Fashion Week and Young Designers Competition</td>
<td>€60,000</td>
</tr>
<tr>
<td>Cheer Up</td>
<td>To help young cancer patients between the ages of 15 and 25 to realize personal dreams.</td>
<td>€30,000</td>
</tr>
<tr>
<td>Develop (Social entrepreneurship)</td>
<td>Promotes international social entrepreneurship, an innovative corporate model that combines economic performance with a strong social impact.</td>
<td>€22,000</td>
</tr>
<tr>
<td>EcoThink (Sustainable development auditing)</td>
<td>To promote an ecological way of thinking and to benchmark via sustainable development auditing</td>
<td>€42,000</td>
</tr>
<tr>
<td>Generation Mix</td>
<td>To break the solitude of senior citizens living alone by organizing weekly visit as well as activities and outings.</td>
<td></td>
</tr>
<tr>
<td>HumanEast</td>
<td>To help children from the Carpathians in the Ukraine in collaboration with local authorities and the Ukrainian Red Cross.</td>
<td>€12,000</td>
</tr>
<tr>
<td>L’Ombre et la Plume</td>
<td>To promote writing in prisons</td>
<td>€4,500</td>
</tr>
<tr>
<td>Objective Réussite</td>
<td>To motivate young people in difficulty to succeed in their examinations and via cultural outings</td>
<td></td>
</tr>
<tr>
<td>Schola Africa</td>
<td>To develop education and training programmes in Burkino Faso to include building schools and managing a sewing centre</td>
<td>€30,000</td>
</tr>
<tr>
<td>Vive les Vacances (registered non-profit association)</td>
<td>To help combat social exclusion through daily and tailored help for schoolchildren as well as outings and holidays.</td>
<td>€40,000</td>
</tr>
<tr>
<td>Edhec Junior Etudes</td>
<td>To organize studies for businesses</td>
<td>€200,000</td>
</tr>
<tr>
<td>Total Edhec Entreprendre</td>
<td>Organizes the Young Entrepreneurs Competition</td>
<td>€15,000</td>
</tr>
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The Social Purposes of Business Education: 
Educational Perspectives from the International Baccalaureate

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The International Baccalaureate (IB) is in the process of reviewing its curriculum for business management. Going beyond the mere exercise of updating the syllabus and revising the assessment strategy, this is the opportunity to consider and reconsider the social purposes of business education. In this paper, the Chief Examiner and the Curriculum Manager analyse the challenges they are facing – challenges that any course developer is likely to recognise, challenges that a concept-based approach to business education should help overcome. An understanding of the social purposes of business education is at the core of the current IB curriculum development, through a pioneering model that embeds a culture of international mindedness through a concept-based approach. Ultimately, the aim is to help students and teachers alike foster the ideas of international cooperation and responsible citizenship. Rather than having simply studied business in an international context, IB candidates choosing to study that subject will develop into internationally-minded and globally/socially engaged critical thinkers, better prepared for the complexities and challenges of a rapidly changing 21st century.

Introduction: business education in the IB context

Founded in 1968, the International Baccalaureate (IB) currently works with over 3,300 schools in 141 countries. Business has been offered as an optional subject for IB students since 1982; it has seen many incarnations and different names, being successively called “organization studies”, “business and organization”, “business studies”, “business and management” and the latest proposed change, “business management”; this evolution shows the IB’s desire to reflect the dynamic nature of the subject and to ensure that the curriculum provides a rigorous grounding for students wishing to pursue studies at tertiary level. Co-written by the IB Curriculum Manager and the IB Chief Examiner responsible for the subject, this paper examines how the teaching of business in an international context can fully embrace its social purposes and responsibilities, even in today’s turbulent and chaotic world.

The IB Diploma Programme was introduced in 1968. Influenced by the ideals Kurt Hahn and the culmination of the work of leading educationalists Alec Peterson and Robert Blackburn, it aimed to ensure education and assessment appropriate for an international, culturally diverse body of students: ‘We sought not to produce a generation of rootless ‘world citizens’ but one of Americans, English, French, Germans, Mexicans, Russians and others, who understood each other better, sought to co-operate with each other, and had friends across frontiers’ (Peterson 2003: 5). The three pillars that framed the development of the Diploma Programme in 1968: being academically rigorous, embodying the essence of cross-cultural understanding and being recognised by universities worldwide, are still relevant today for all IB Diploma subjects, including business.

The current IB curriculum for business offers a balance of objective, positivist topics (such as investment appraisal and economies of scale) and more subjective, humanistic ones (such as the impacts of multinational companies on host countries and the role of charities and pressure groups). This balance is based on a combined content-led and value-based approach. Being content-led, it is designed to help the IB fulfil its mission statement which is “to develop inquiring, knowledgeable and caring young people who help to create a better and more peaceful world through intercultural understanding and respect” (IB 2007). The value-based approach to business education is underpinned by the IB ethos to develop internationally minded young people, which is encapsulated in its “learner profile”: IB learners should be able to make “reasoned, ethical decisions”, have “a personal commitment to service” and show “empathy, compassion and respect towards the needs and feelings of others” (IB 2007) – these attributes are indicative of how the IB business curriculum encourages strong social values, clearly reflecting an awareness of the social purposes of business education.

Curriculum review: three tensions in international business education

The business curriculum is currently being redesigned; this is part of the thorough review that each subject undergoes every seven years. The aim is “is to ensure that each curriculum is fit for purpose in a changing world and incorporates the latest educational research as well as lessons learned from a thorough evaluation of the existing curriculum” (IB 2009). This collaborative undertaking, led by an IB Curriculum Manager, brings together subject consultants, IB teachers and senior examiners. The review process lasts seven years, three of which are spent in the active re-writing of the curriculum. This process ensures full consultation with key
The first tension: “hard” or “soft”?  
The first tension, described as a tension between a “hard” approach to business education and a “softer” approach, is best understood by focusing on the term “social” in the phrase “social sciences”. Based on the premise that business indeed is one of the social sciences, we could ask ourselves a number of questions, such as: to what extent can/should social factors be addressed in a business curriculum? Could these social factors even drive the curriculum, or should they merely be included? On the one hand, candidates need to understand the technical rationality and intrinsic rigidity of, for example, forecasting techniques – one of the learning outcomes, in the current syllabus is “to analyse sales trends and forecasts from given data” (IB 2007). On the other hand, they should also be able to “explain the different views that firms may take of their corporate social responsibility (CSR) in an international context” (IB 2007); this implies that firms, besides just providing employment opportunities, have a social role to play in a global society, yet the command term “explain” implies a description of facts, the reasons of which have to be articulated. In the new curriculum, in that sentence, the word “explain” will be replaced by “discuss” to reflect the fact that a range of views may be argued and illustrated. This shows the level of detail that the curriculum reviewers go into, when pondering upon the wording of each intended learning outcome. This is particular pertinent in relation to the focus of this paper as different command terms will reflect different assumptions about the social purposes of business education. A further example is that IB candidates are expected to “examine the reasons why organizations consider setting ethical objectives”. This is not the same as expecting them to merely “identify reasons why organizations consider setting ethical objectives”, since the former requires a much more critical dimension to its response. By encouraging students “to discuss” rather than “to explain”, or “to examine” rather than “to identify”, the questions lend themselves to a more reflective response that allows students to think more critically about how different cultural perspectives, for example, may influence the decisions or strategies taken by organisations and companies.

Moreover, the business curriculum is not written in isolation: the subject is part of a group of ten subjects called “Individuals and Societies” (group 3). This group also includes economics, geography and world religions, as well as philosophy, psychology, history, information technology in a global society and social and cultural anthropology. Not only do all group 3 subjects use the same terminology of command terms (for example “identify”, “explain”, “examine” and “discuss”, corresponding to different levels of cognitive skills), but they also all focus on understanding human nature, decisions and events, through a set of common aims; put another way, the business curriculum, being located in group 3, must address social factors, whilst still including techniques (such as the calculation of the break-even quantity) and tools (such as decision trees for decision-making purposes). In other words, the curriculum must explicitly reflect a social agenda, whilst maintaining its own disciplinary integrity and nature.
The second tension: “global” or “local”?

The second tension, described as a tension between “global significance” and “local relevance”, is not specific to the subject of business exclusively: it is a key challenge for all IB subjects. However, the IB context, which is international by nature, makes the business curriculum challenging to write because it seeks to provide a globally significant course, reflected in part by its recognition at universities worldwide, but that is also locally relevant to all candidates, no matter where they live. This challenge is well illustrated by the variation of national legal systems, especially regarding the legal status of firms, for example a French SARL (Société à Responsabilité Limitée) is not entirely equivalent to a ‘private company limited by shares’ in the UK or to a ‘limited liability partnership’ in the USA; candidates cannot be expected to learn about these differences. Whilst legal factors have their place in the framework of a PESTLE/STEEPLE analysis, IB candidates could not be tested on their knowledge of country-specific laws, regulations or economic policies; this is very different from a national curriculum (written in Spain for Spanish students, or in Japan for Japanese students) where coverage of the country’s business legislation is often a basic requirement of business education.

Whilst all IB students follow a broadly similar course, and sit the same exam irrespective of the country where they are based, the structure of the course must remain flexible enough to allow teachers to incorporate into their teaching aspects of business management that are of local relevance. This follows one of the principles of the IB: in the Diploma Programme “the aims, objectives, content and assessment criteria are written in order to develop international mindedness while, at the same time, ensuring that teachers have enough choice to make the course locally relevant and grounded” (IB 2009a: 6). In the case of business education, this can be achieved through the selection and use of case studies to support the teaching and learning of the subject. Furthermore, teachers are also encouraged to ensure that, through the use of case studies, students are given the opportunity to draw comparisons not only between companies and organisations within the same country, but also between countries and cultures. One of the specific aims of the business course is that it seeks ‘to promote the importance of exploring business issues from different cultural perspectives’ (IB 2007). Put another way, the business education that IB candidates receive must make sense within local, national and international contexts, which are not seen in isolation, but interconnected and interdependent. In this respect, an important role that IB teachers have to play is to make candidates aware of these links. Central to this is the conceptualisation of international mindedness and the attitude of openness and curiosity about other cultures and ways of knowing and doing – which includes “ways of doing business”.

The third tension: “traditional” or “contemporary”?

The third tension, described as a tension between “traditional concepts” and “contemporary ideas”, comes from the very nature of a curriculum review: reflecting on current trends in the discipline to ensure that the design of tomorrow’s business education is meaningful and relevant. Simply put, purely in terms of content, it is a matter of deciding “what to keep”, “what to delete”, “what to add”. Through the long curriculum review process, the multi-layered conversations between stakeholders (including teachers, consultants, senior examiners and IB staff at both operational and strategic levels) make this co-creation of the revised canon both stimulating and challenging: stimulating because of the intellectual creativity at play (when drafting learning outcomes, when reflecting on the nature of the subject, or when commenting on proposals and feedback received), difficult because individuals are often passionate about their own views (“critical path analysis is essential, it must stay”, “critical path analysis must go, it is not even taught at university nowadays”). The IB Curriculum Manager must ensure that, whilst listening to the various stakeholders, the contributors’ own agendas, pet hates or academic interests do not prevail; this is different from a university context where lecturers are usually encouraged to develop courses and modules giving them the opportunity to integrate their own research into their teaching. The three pillars of the IB Diploma Programme that were stated earlier underpin any subject review: to ensure that the curriculum is academically rigorous, embodies the essence of cross-cultural understanding and is able to achieve university recognition worldwide.

Even in the case of “traditional” vs “contemporary”, international differences also come to the surface: what feels outdated in business education in one cultural/national context, might be pertinent in another one; what is relevant and modern in one, might be uncomfortably remote in another. First example: the topic of cooperatives may seem outdated for some teachers in developed countries, whereas in developing countries cooperatives are such a common business model that the topic ought to be retained. A second example is public-private partnership (PPP): this type of business venture is present in some countries, such as Canada, but it does not exist in others, such as Uruguay; should the topic then still be mentioned in the revised curriculum? The Canadian voice will say “yes”, the Uruguayan one will say “no”. For an international curriculum that encourages cross-cultural comparison, the study of cooperatives and public-private partnerships becomes even more meaningful, as teachers can then also explore why certain practices may be relevant locally but not necessarily have global significance. Furthermore, senior examiners responsible for assessment also have to ensure that the new topics are worded in such a way that candidates’ knowledge and understanding can be tested in different ways, over time, without predictability or rigidity. For example, adding to the curriculum new terms such as
entrepreneurs and intrapreneurs (as business education is increasingly expected to include elements of enterprise education) is only the first step; it is then necessary to articulate learning outcomes that can be assessed, such as the ability “to distinguish between entrepreneurship (and entrepreneur) and intrapreneurship (and intrapreneur)."
organizing ideas that have relevance within the subject but can also transcend it (Erickson 2011). Key concepts provide breadth, whereas the so-called “related concepts” (for example market research or quality management) reflect these, but with greater subject specificity and depth, directly emerging from the discipline. Related concepts are more tied to individual units of study, which allow students to focus in more depth on developing their understanding of these units (for example, primary versus secondary market research, or quality development through benchmarking or kaizen). They are the vehicle through which student inquiry takes place. By identifying key concepts and related concepts for the subject as a whole, as well as within individual units, the aim is to facilitate not only disciplinary and interdisciplinary learning, but also the development of transferable knowledge and skills. This approach to teaching and learning is already in place in other parts of the IB; in 1997, the IB introduced a Primary Years Programme (PYP) for 3-11 years olds; it is firmly grounded in the practice of concept-based teaching and learning. Furthermore, The Middle Years Programme (MYP) introduced in 1994 is currently re-designing its curriculum, also following this model, and so in moving towards this at Diploma level, students will develop their understanding at increasing levels of sophistication, providing both continuity and progression in their learning.

Conclusions
Ultimately, the IB curriculum developers have identified six benefits of adopting a concept-based learning approach to business management:

- It places the course at the forefront of a new educational trend (in an IB context, this also shows clear links to the approaches to teaching and learning being followed in the PYP and MYP, thereby ensuring a real continuum of IB education);
- It explicitly highlights and makes central six key concepts already present in the guide: culture, change, ethics, globalization, strategy and technology, six key concepts that underpin the whole course but also transcend it as they are also relevant outside the business curriculum itself (this will also be of great benefit to new teachers and non-subject specialists who can then rapidly appreciate the tenets of the IB business education);
- It requires students to process knowledge at a deeper intellectual level, allowing them to develop higher order thinking skills;
- It does not affect the content of the subject (which is an important reassurance for experienced teachers who may be new to concept-based learning and unsure how to offer it in the classroom), it rather offers an alternative framework for the curriculum model;
- It ensures that the social agenda of business education is firmly in place;
- It helps resolve the three tensions discussed earlier in this paper.

This paper has argued that an understanding of the social purposes of business education is at the core of the current curriculum development of the International Baccalaureate, through a pioneering model that embeds a culture of international mindedness to business education through a concept-based approach. Ultimately, the aim is to help students and teachers alike foster the ideas of international cooperation and responsible citizenship, as they make sense of the forces and circumstances that drive and restrain change in an interdependent and multicultural world. Rather than being students who have simply studied business in an international context, IB students go beyond this and develop into internationally-minded and globally/socially engaged critical thinkers, better prepared for the complexities and challenges of a rapidly changing 21st century.

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Preparing a case book in the context of Real World Learning

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Case studies have a central place in business education (Banning, 2003; Swiercz & Ross, 2003; Liang & Wang, 2004; Liang & Lin, 2008). Stenden University offers a MA in International Service Management (MAISM). In the first module of the MAISM programme students perform an analysis of a company that they have worked for or that they know intimately as a customer or through other contacts. The analysis is based on the Gap model of service quality, an instrument that may be used to study and diagnose organizations as presented in the book Services Marketing by Zeithaml, Bitner & Gremler. Students are asked to identify the service concept of the company with the core and supplementary services and products. Questions that should be addressed are: what market does the organization serve, B2B or B2C; local, national or international? Who are the organization’s main customers and what is their role in the service process? What are the key service processes that add value for the customer? Who is involved in these processes and how does the company manage these processes?

Most of the reports that the students write are interesting, since they have working experience at the companies. Many reports are very well written, and some are excellent. These reports contain such rich material that we have decided to make a casebook based on the most interesting service firms. The cases represent different service industries, different countries, and each present a focus on one or more of the aspects of the book by Zeithaml et al. The casebook intends to illustrate the range of sectors that are represented in services, and to help students understand themes that are relevant in studying services (Gremler et al., 2000). An instructor’s manual will be written to accompany the cases. The casebook will be published in an English, and in a Chinese edition. Several MAISM students are involved in developing cases from the reports. We feel this is a good way to engage the mature learners that come to our MA programme (Webster, 1988).

The development of the casebook has interesting theoretical aspects. As Swiercz and Ross (2003, p.427) write in their recommendations for further research, one question concerns, how cases are written and reported. A critical exploration of the dynamics and process of case preparation could provide a valuable resource for future investigations of case pedagogy. The question “How real are the real-world case studies?” deserves an answer. The “science” of management research has made significant strides over the past three decades. Recent qualitative research developments and innovations have created powerful tools for investigating the “truth” of case narratives. Given the centrality of the case study in business education, research aimed at investigating the case process has a great deal to offer to the advancement of business education and the organizational processes that flow from it.

To support the process of the development of the casebook, and to illustrate the concepts that play a part, we developed a mindmap of the various elements that are (inter)related in the project (see appendix: Mindmap of the Casebook Co-Production Project).

At the EDINEB conference we propose to conduct a workshop to involve the EDINEB participants in the dilemmas that have confronted us, and the solutions that we have come up with. Hopefully this will inspire the participants, and help them develop their own material based on the experience that their students bring to the classroom.

References


A Market Oriented Approach to Participation and Social Mobility

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Abstract: This has proven to be a very challenging paper to write, partly because it crystallises so much that universities have to do if they are to become market-led and marketing-oriented, as is increasingly being demanded and expected, but also because the overarching context is one of unprecedented and ongoing sectoral turbulence. This has been predicated by the global economic crisis which started in the Autumn of 2008, the impact of which is now being fully felt on both the supply and demand sides of Higher Education. The UK HE Funding Council (HEFCE) has over recent years endeavoured to incentivise change through a variety of initiatives and interventions, but these themselves are now regarded as dispensable in the light of overall austerity measures. An example are the forty seven Employer Engagement initiatives, funded by HEFCE with a gross value >£102m, were designed to drive strategic alignment between universities and business. The original policy drivers anticipated continued and sustainable economic growth, recognising the need to ensure the long term development of a fit-for-purpose future workforce which would enable UK PLC to compete effectively in the global marketplace, and sustain the standards of living that we have come to expect. The long term sustainability of this scheme was through a recurrent, innovative co-financed learner funding initiative, which has now been withdrawn as cutbacks are enforced, despite the fact that overall, this was starting to become successful and valued by universities, employers and employees alike.

The Paper outlines the context of the emerging global challenge from 2008, which confronted most universities as the world around them rapidly, sometimes unpredictably and occasionally unfairly, changed. It also indicates possible opportunities for those that are able prepared to adapt. Taking a Darwinian perspective, only the fittest are likely to survive in what will be an increasingly competitive, complex and difficult operating environment. Doing that which has always been done will almost certainly not be an option in the face of huge and systemic political, economic, ecological, social and technological change. Many universities, with their high fixed costs and consequential lack of agility and adaptability, may well find that the speed needed to meet the challenges is too fast for their embedded cultures, ecosystems, processes and general modus operandi to cope with. Many will disappear as we know them and not an unsubstantial number are likely to die altogether.

The essence of the argument is that Universities worldwide will have to re-think the culture, capacity, capabilities and competencies upon which traditionally they have been built, if they are to survive, and perhaps thrive, in an ultra-competitive environment. This will probably necessitate a fundamental review of what resources are to be invested in, and indeed which are to be divested, how they are to be used and how to respond in a real marketplace where the learner will increasingly be ‘King’.

Field, Factory and Firmament

The course of the past millennium has seen the British economy transform from being primarily agrarian, though to industrial and more recently, into the twenty first century, towards a knowledge orientation. It is now difficult to avoid hearing, or reading the terms ‘knowledge economy’, or ‘knowledge-based economy’. Given their constant use and application, it is important to be clear on what they mean and infer.

The term ‘knowledge economy’ can refer to the ‘economy of knowledge’, which focuses on the production and management of knowledge, set against economic constraints, or to a ‘knowledge-based economy’ where the emphasis is on the use and application of knowledge to produce economic benefits as well as job creation. Peter Drucker (1969) first popularised this distinction, and the difference is more than semantic. In an economy of knowledge, knowledge is a product in it’s own right whilst in a knowledge-based economy, it is a tool whereby the value of the knowledge created lies in its commercial and societal application and exploitation. There is a large degree of inter-dependency between these, but there is no inevitability that one will lead to the other. Transformative structures, processes and interventions are needed to get from one stage to another and often, this will necessitate the involvement of multi-disciplinary teams ranging from scientists, engineers and technologists to consumer behaviour specialists, economists, sociologists and psychologists. Schumpeter (1961) would argue that entrepreneurs are the critical link between the creation and exploitation of knowledge. They, according to Schumpeter, alongside land, labour and capital, are the critical fourth factor of production. Their distinct skill is to match what is possible in the context of what is known, with that which is wanted, needed or desired. Their primary role and driver is both to see, and seek new commercial opportunities. Through their innovativeness and imagination, they then create dynamic economic disequilibrium by forcing change to happen through the adaptation, adoption, application and implementation of existing knowledge.

It is perhaps important to contextualise this with the rapid globalisation of world markets. The seminal ‘Race to the Top’ (Sainsbury, 2007), highlights the significance and implications of an international economy...


In economic and social terms, globalisation provides both opportunity and threat. It provides new sources for imports and new markets for exports. Businesses are able to re-structure and re-locate, taking advantage of relative production cost-benefits at a given moment in time, whilst at the same time they can build new markets through both physical and virtual marketing channels. In this context, production and manufacturing activities are likely to be located where costs are smallest, and this is unlikely to be in well-developed nations’ where their cost-base is relatively high. Increasingly, the economic imperative for wealthy nations is to be engaged in the high value-adding aspects of the development of both goods and services, and this is likely to be through new knowledge creation, the re-interpretation of existing knowledge, concept development, innovation, design and service related activities. These are less easy to offshore, or transfer, certainly in the medium term, until international competitors develop their own infrastructure which enable them to undertake these functions for themselves.

The implications of these interpretations and definitions on our current lifestyles, wellbeing and perhaps survival, are profound. To compete in an increasingly competitive global market place, we will need to be creative, innovative, enterprising and entrepreneurial. We will need to be clear where our own sources of relative and sustainable competitive advantage lie. We will then need to align political, economic, social and technological policies, strategies and tactics which facilitate the achievement of these aspirations. This will necessitate a consistent and coherent approach, as significant long term investments will have to be made which enable aspirations to become realities. Achieving these laudable goals will not be easy. Others will be taking a similar approach; there will always be internal tensions and conflict over resource prioritisation; in a democracy, relatively short term needs and expedients often take priority over long term benefits and as has been all too evident in recent years, totally unpredictable externalities happen which can throw the best made plans into disarray, such as the terrorist destruction of the World Trade Centre in September 2001.

**Commercialising Knowledge:**
Since 1997, the current UK Government has commissioned a plethora of reports investigating many aspects of the British economy and in particular, the role that universities and business together need to play in order that we maintain our status as a leading world economy. The now famous Labour election mantra of 1997 was ‘education, education, education’, and this was in part inspired by the philosophy that education is valuable in it’s own right, but perhaps more in recognition of the longer term economic necessity (Blair 1997). It is known that the then Chancellor of the Exchequer, Gordon Brown, had concerns that there was too little genuine and systemic connectivity between our academic and commercial base, and this is a recurrent theme throughout the many Reports that have subsequently appeared. The Treasury perspective is that this potentially represents very significant revenue, GDP and employment opportunities lost, and which therefore merits further investigation and investment.

The Review of Business and University Collaboration (Lambert 2003) highlighted the need, in the context of the knowledge-based economy, for Business and Universities to work much more closely, and synergistically, together. It highlighted the critical importance of ensuring effective bi and multi-directional flows of information between those that create, apply and commercialise knowledge, thereby ensuring that through collaboration, value is added in many ways and at many levels, with significant emphasis on long term sustainability. The Lambert Report is seminal, and has subsequently driven funding policy in multifarious ways which in turn has led to many Universities shifting their mission and focus, giving greater emphasis to economic impact and benefit.

The Review of Creativity in Business (Cox 2005) highlighted the relative advantages that low cost base economies have in a world where transportation is cheap and pervasive. ‘This has already led to the diminution of many long established industries and a consequent loss of jobs, particularly those requiring lower levels of skill. The expectation has always been that these would be replaced by those requiring higher levels of skill, but what has become increasingly apparent is that this is not necessarily the whole picture. The now rapidly developing economies have no desire to remain as suppliers of cheap, low-skilled labour to the world. And indeed, why should they?’ (Cox, 2005). The implications from Cox are that training and up-skilling alone is not likely to be enough to create sustainable competitive advantage. He emphasises that to think in this way ‘would be both wrong, and dangerously complacent’ and what is needed is a fundamental shift in business capability, predicated on not only higher level skills, but more upon curiosity, creativity, ingenuity, innovativeness and entrepreneurialism. These are attributes that need to be encouraged and nurtured, implicitly becoming embedded

’without walls’, whereby we see emerging an international market for world labour, capital, goods and services. Modern trends to globalisation are underpinned by rapid and seemingly endless developments and improvements in communication and transport technologies, making global operations and logistics faster, easier and cheaper. This is accompanied by an emerging ‘global mindset and identity’ whereby more people now have an international perspective which permeates both their thoughts and actions.
into our culture and upbringing. If successful, for others to simply copy them is neither easy nor indeed possible, and therefore they do provide the potential for longer term economic sustainability.

In Increasing the Economic Impact of Research Councils (Warry 2006), it was clearly stated that ‘Chief Executives of each Research Council are responsible for the economic relevance of their programmes, and for the impact of their spending ... there are a range of policies now in-place to deliver a step change in the economic impact of Councils, but the potential of these policies needs to be realised’. The subsequent implication of this shift in funding policy, has been that all applications for government supported research funding have to place greater emphasis on future economic impact, and this measure significantly influences ultimate resource allocation decisions. This, of course, is academically controversial, but the impact can already be seen that this has had on funding policy and aligned to this, many Universities’ Research, Enterprise and Knowledge Transfer strategies.

Prosperity for all in the Global Economy – World Class Skills (Leitch 2006) was commissioned to look at the UK’s skills base, both where we are and where we need to go. ‘In the nineteenth century, the UK had natural resources, the labour force and the inspiration to lead the world into the Industrial Revolution. Today, we are witnessing a different type of revolution. For developed countries who cannot compete on natural resources and low labour costs, success demands a more service-led economy and high value-added industry. In the 21st Century, our natural resource is our people – and their potential is both untapped and vast. Skills will unlock that potential. The prize for our country will be enormous – higher productivity, the creation of wealth and social justice’ (Leitch 2006).

This report highlighted demographic, technological and global changes which together present significant challenges to our national modus operandi, but at the same time, huge opportunities. The latter is predicated on being able to respond quickly, efficiently and effectively to closing the gap on the emerging skills, knowledge and cultural issues that are often hidden away. Leitch highlighted the fact that one third of adults in the UK do not hold the equivalent of a basic school leaving qualification; half of adults have difficulty with numbers and 15% (5 million) are functionally illiterate. All of these statistics are much worse than our benchmark comparators. Critically, the Report emphasises that improving our schools is not in itself sufficient, as over 70% of the 2020 workforce have already completed their compulsory education. The Report makes many important recommendations, but at the heart of these is the need to effect radical change ‘right across the skills spectrum’ at basic, intermediate and higher levels, with specific emphasis on adult skill engagement and development, and upon ‘economically valuable’ skills. ‘Too many of us have little interest or appetite for improved skills. We must begin a new journey to embed a culture of learning, and as a society, we must invest more’.

Race to the Top (Sainsbury 2007) focused on innovation performance in the UK, and in many respects gives an upbeat message relating to this. Specific reference is made to the proportion of GDP generated through high technology, knowledge intensive industries and services, and to the ‘dramatic’ improvements in knowledge transfer partnerships between British universities and business, with ‘the emergence and growth of exciting high-technology clusters around many of our world-class universities’. The Report goes on to emphasise ‘our outstanding record of scientific discovery’ with the critical caveat ‘in the future, it will no longer be necessary to start every report of this kind with dreary statement that, while the UK has an excellent record of research, we have a poor record of turning discoveries into products and services. While we believe that our record of innovation is better than is commonly supposed, we have not yet produced the best possible conditions to stimulate innovation in industry’. This Report has been used to underpin further new policies relating to the commercialisation of research, incentivising universities and business to work closely to ensure a market-led approach at all stages of research and knowledge transfer activity.

‘Innovation Nation – Unlocking Talent’ (DIUS, 2008) emerged from the then newly, and perhaps significantly, renamed Department of Innovation, Universities and Skills. The preface from the Secretary of State, John Denham, stated ‘that the government wants to create a stronger and fairer Britain, equipped to meet the challenges of the future ... we want innovation to flourish across every area of the economy, and in particular, wherever high value business can develop and grow. Innovation will be the key to some of the biggest challenges facing our society such as global warming and sustainable development ... we can achieve this by investing in people and knowledge, unlocking talents at all levels, by investing in research and in the exploitation of this. Government can foster innovation, but only people can create an Innovation Nation’. Following this White Paper, funding policy in general, and to Higher Education specifically has fundamentally shifted to reflect the ambitions outlined.

In 2008, the Confederation of British Industry (CBI) produced their own independent Report, ‘Stepping Higher’ (CBI, 2008). This concluded ‘that a strong relationship between the business and university sectors is critical to helping the UK maintain competitiveness. Both sides benefit from this – businesses from new thinking and high quality graduates, universities from practical insights that enrich their teaching, research as well as funding’. Particular emphasis is placed upon workforce development, and the need for new skills and innovative ways of doing things upon which sustainable competitive advantage can be built. The Report also
emphasises that employers are not confident that there will be sufficient skilled people available to them to meet their anticipated needs. It also highlights the challenge of a future economy where perhaps half the jobs (in ten years time) will be in areas as yet unknown. This salutary reminder very much re-enforces Sir George Cox’s comments that it is not just skills, but creativity and talent that will be so important, as it is these attributes that will actually define what skills and competencies will be required.

In November 2009, against the economic backdrop of the global banking crisis, the Department for Business, Innovation and Skills published ‘Higher Ambitions – the future of Universities in a knowledge economy’ (BIS, 2009) This took a fifteen year economic perspective, and tried to anticipate the impact of impending changes, some of which are known, and others that need to be anticipated. It states that ‘the most recent estimate is that UK universities’ economic output is £59bn per annum, and amounts to 2.3% of UK GDP’.

The challenge highlighted in the Paper is how this progress can be maintained. ‘In a knowledge economy, universities are the most important mechanism we have for generating and preserving, disseminating, and transforming knowledge into wider social and economic benefits. They are crucial too, as the providers of life chances for individuals, in an environment where skills and the ability to apply those skills are essential preconditions for employment’. The Report goes on to map out the demographic changes that are expected, impending environmental issues, the impact of further technological advances and the non-viability of the continuation of the current arrangements for the funding of Higher Education. It also shows that relative to our economic competitors and comparators, the UK participation rate in higher education has slipped from 7th in the Organisation of Economic Co-operation and Development (OECD) rankings, to 15th. There is more recent evidence emerging that the UK is now less socially mobile now than it was fifty years ago (Hills, 2010).

Inferentially, this is unlikely to help support our future economic aspirations and indeed expectations, and hence, the Report starts to look at what needs to change to get us to where it is perceived we need to be. ‘a major change is required in the culture of our higher education system, where the focus of expansion has hitherto been in three year full time degree courses. The next phase of expansion in higher education will hinge on providing opportunities for different types of people to study in a wider range of ways than in the past. The focus will therefore be on a greater diversity of models of learning: part time, work-based and studying whilst at home’.

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<th>Table 1: GDP per head of population</th>
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<td><strong>OECD 2007</strong></td>
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<td>UK</td>
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<td>22% below the USA</td>
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<td>Only 9% above the combined Euro-Zone countries</td>
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<td>Significantly below Ireland and Switzerland</td>
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<td>This gives a clear indication that our performance in terms of GDP output measure is perhaps surprisingly ordinary when looked at in this way. Information highlights and substantiates the importance of the recommendations from the many reports referred to, and that as a nation, we do need to improve our economic efficiency and effectiveness in order that we are, and remain, internationally competitive.</td>
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Table 2 is also compiled from OECD (2007) data. This chart illustrates GDP against hours worked and indicates that the UK is more than 15% behind the USA and France and 22% below Ireland. UK overall performance using this measure is 2% below the Euro Zone average and certainly not comparable with those whom we might expect to benchmark ourselves, again emphasising the imperative to look at what we do and how we do it. It is likely that it is only through smarter working, which will necessitate much more effective production practices, that we will close the gap – and of course, this is a relative and not an absolute model.

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Others are likely to follow similar strategies, in which case we will have to run simply to stand still, and run very fast to make some headway. This should serve to focus the mind on the scale of the change that is required. The Higher Ambitions Report (2009) makes specific reference to impending demographic change, and it is important to consider the implications and potential consequences of these. Universities UK recently commissioned a Report to investigate the future size and shape of the higher education sector in the UK. Specifically, how this might change over the next twenty years in response to demographic changes.

In the period 2006-2027, it is estimated that the UK population will rise by 15% from 60m to 70m. The increase will not be reflected evenly across age groups, and it is projected that the numbers of 18-20 year olds, which are critical to traditional University entrance planning, will rise by less than 1%. At the same time, the numbers aged >65 will increase by more than 30%. This gives rise to many fundamental questions with profound political, economic and social implications that an ageing population brings. Immediate issues about the viability and sustainability of our pensions system, which Lord Hutton is now investigating, and will report on in July 2011, where the workforce of the future will come from, and how we ensure that our ageing population has an appropriate economic, social and technological skill set to match the circumstances in which they may well find themselves.

As the Higher Ambitions Report (2009) advocates, a new model of higher level learning will be needed to equip ageing individuals, companies, other organisations and UK PLC, with a toolkit to enable them to both thrive and survive in an environment where the rate of change gets only faster. This agenda offers many opportunities to higher education providers, but so too are there many tensions and challenges.

The current model of delivering higher level skills, knowledge and learning is likely to have to change significantly for this to work on the scale that is likely to be required. Qualifications will have to become more flexible, pedagogic methods, often designed for full time 18 year olds, will need to change to reflect the different needs and expectations of more mature learners, employers and employees will have to share a greater proportion of the cost and much of the huge existing university real estate and technological infrastructure may well become unfit for purpose. Implicit is that a pervasive paradigm shift will have to take place, which will not be easy to achieve and is not without significant financial and reputational risk to providers who are currently not effected by that which is to come.

Can Universities Adapt to a Market Environment?

Most conventional marketing textbooks advocate four key inter-related, co-dependent marketing variables – the so-called four P’s of the marketing mix, which are used to satisfy needs wants and desires, or communicate, with customers. These are product, place, price and promotion. (Kotler, 1979) Typically, three further key variables have been added to recognise and accommodate the difference between the marketing of tangible products and those of intangible services which are process, physical evidence / resources and people. (Zeithaml and Bitner 1996)

If universities are serious about becoming market-led, then attention and thought needs to be given to the nature of their core business and to be clear about, as Levitt would suggest, “what are we selling?” (Levitt, 1960). This fundamental understanding and perspective should then help to identify, and inform, what the key variables are that will underpin the marketing of a university portfolio, and the tactical apportionment of resource that needs to be allocated, and where, to optimise their chances of success in the marketplace.
Defining the core business of a university is in itself challenging and controversial, and one to which there is probably no absolute clarity nor consensus. For example, is the primary product that we ‘sell’ the Degree Award itself, with its associated classification and certification? Or rather do we actually ‘sell’ the brand of the university, with the standing and status implications of this? From the perspective of a paying employer, are we actually selling business benefits? More philosophically, do we sell anything at all, and related, do we accept the notion that our learners are ‘customers’ in a consumer oriented sense? Many might argue that Universities provide ‘general’ opportunities for self-development and lifestyle, and that it is these which most informs choice and where the real value-proposition lies to the user.

There are many other issues too which are very specific to all universities. Should we be concerned with future economic and employment needs, and if so, tailor our products and services to anticipate these requirements? Or should we take the view that the development of a well-honed and educated mind is in itself what higher education is about, and that we should avoid an instrumental ‘training’ approach to higher levels of learning, on the basis that those with highly developed minds will be able to adapt more quickly in a world where the half life of knowledge is seemingly ever-reducing. Finally, most universities are multi-faceted, comprising many, not necessarily integrated, elements, all playing a part in achieving their overall mission. If so, is it possible to have one marketing mix, or are separate ones needed to reflect the overall complexity that is a university, and indeed, are even the seven ‘P’ variables adequate and fit for purpose in the context that a university operates in? Perhaps the most important thing is to recognise the validity of such questions, and the tensions that lie therein, and then to find ways to address them as best as is possible.

The concept of the augmented product mix is well established (Kotler, 1979) and this recognises that competitive advantage and customer satisfaction is often gained through enhanced product support both pre, during and post purchase. The importance of the service element of this has long been recognised and in many ways, this blurs the simplistic product / service demarcation. Most marketers would now make specific reference to the extended marketing mix in their product planning and overall product life cycle management. Indeed, many have started to consider many additional marketing variables. Serious consideration needs to be given a hyper-extended marketing mix for universities, to reflect their super-complexity and the rapidly changing environment in which they are expected to operate.

**An Extended Marketing Mix for Higher Education?**

Table 3 illustrates as a honeycomb, twenty potential marketing variables that might be important to a greater or lesser extent, in the construction of a marketing plan for a university, with relative importance starting from the centre. The relative level of importance is debateable, but what is perhaps most important are the principles behind this. If this does strike a chord, then the implications for many marketing activities of a university are profound.

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Universities as Global Brands:
At the heart of the proposed model is the promise. As higher education becomes more globalised and competitive, most universities have become very aware of the importance and value of their brand, in order that they can more easily differentiate themselves. Many universities have invested significantly in developing their image, status, standing and reputation, locally, regionally, nationally and internationally, to create for themselves a sustainable source of competitive advantage. From a consumer behaviourist perspective, a good brand implies a long-standing promise, underpinned by clear and unambiguous values, activities and actions. A great brand is a promise kept, and it is essential that universities are able deliver that which they promise, be it implicit or explicit. (de Chernatony, McDonald, 1998) Individuals, families and organisations now take a big risk when committing to a university, and invest very significant amounts of time, money and effort into participating in higher level learning. It should not be surprising that their expectations rise ever-higher as their personal commitment increases. There is significant evidence from National Student Survey feedback of user-dissatisfaction, with universities all too often not living up to expectations. The message is clear – Brand building is a commercial necessity, and an essential part of the corporate marketing mix. If fully thought through, it adds huge and recurrent value. The underlying infrastructure upon which it is based must be fit for purpose and everyone associated or involved in the University must be fully engaged with the values and proposition and delivering the promise at the level of each and every individual, to ensure the result is a ‘delighted customer’. This is a significant undertaking. The risks of getting this wrong are far reaching. A great brand is hard won, and easily lost. A brand can be nurtured and cherished over many years, and one simple mistake can have almost instant terminal effects, so those that build commercial dependence on their brand need to remain vigilant at all times.

The Product – What are Universities Selling?
The product or service on offer is fundamental to all commercial activity, which in itself presents a dichotomy for Universities – Products are fundamentally our quality assured and approved Programmes and Awards, at many academic levels. For example, a Business School student might graduate with a BA (Hons) in Management Studies, a Master of Business Administration or a PhD in Organisational Behaviour. That is what they sign up to do. That is what the validation and accreditation processes approve and assure. Ostensibly, that is what they appear to be buying, or investing in - or is it? Arguably, what they are really purchasing are the plethora of processes and services underneath, which facilitate their academic development and that ultimately culminate in success on their chosen Award. Furthermore, the perceived value of the brand of both the specific Award and the awarding Institution, are very important.

Traditionally, our higher education learning process is an extended one, taking those enrolled anything between three and ten years to achieve their primary learning outcome. In times of rapid political, economic, social and technological change, it is not unlikely that both supply and demand-side expectations, and aspirations, will change during the study period. Arguably, if so, the ramifications of this rapidly changing and dynamic environment are fundamentally challenging to what are traditionally static, prescriptive, introspective and risk-averse quality assurance processes and procedures, originating from a time when the pace of change was slower, more predictable and less pervasive. This creates a clear tension between traditional supply-side provision and current demand-oriented expectation to which there is no ready, nor easy solution.

As Levitt (1960) postulated nearly fifty years ago, organisations need to be very clear on what they are selling, focussed on benefits, and that a clear and empathetic understanding of this is needed to inform strategic, operational and tactical decisions, at all levels, which will then manifest itself in many ways. There is little evidence in the UK that providers of higher education have at the fundamental level, philosophically adjusted to the changed environment, and using Levitt’s words, are ‘marketing myopic’. Which is perhaps why, for example, we struggle with what ought to be straightforward nomenclature as to what to call our students / learners or indeed, are they customers?

The Real Estate: What is its Value?
Synonymous with Universities and other higher level education providers are campuses, buildings and the town / city where these are located. Sometimes iconic and always a tangible part of the overall offer and brand, traditionally these provide the physical infrastructure to deliver learning and to create a learning community. Huge financial investment has been made in physical infrastructure by most universities, with significant capital and ongoing revenue consequences, which cannot quickly be altered. Set against the impending changes outlined in the first part of this paper, it is likely that universities will have to reconsider the real estate propositions to fit with overall societal change. That is not necessarily to infer that buildings will not be required, but it is likely that their relative importance and role will need to reflect other changes that are taking place, often driven by technological advance, environmental considerations and economic circumstances. Space management surveys show that the overall usage rate of space is low (as little as 20% based on relatively generous metrics), yet over 25% of annual income is spent operating them. This has to beg fundamental
questions relating to future investment priorities in a period where value propositions are changing, driven by lifestyle, economic and technological changes (Table 4). The traditional and relatively inflexible place-based learning construct, necessitating individual attendance often at prescribed times, is, and will continue to be, a barrier to entry to many of those who increasingly need access to higher level skills and knowledge, but whose schedules are varied and unpredictable. It is an imperative that buildings do not become a millstone around the necks of universities in both financial and access terms, and that sufficient resources are available to invest in technology enhanced delivery, which is likely to become increasingly important in the context of blended delivery of courses.

A New Pricing Regime: Ending Uniformity?

Pricing of university activity is complex and varied. For full time Awards, there is a nationally capped fee that can be levied, currently £3250 per annum, and almost all universities charge this. There is a free market at post graduate level and for international students, and fees vary between courses and institutions, though the deviation is small overall. Rates for part time study vary, but tend to relate to an amount per annum rather than an amount per module. Where modular pricing does occur, it tends to be based on the annual full time fee divided by the number of modules studied in academic year. Short unaccredited courses are usually priced based on full economic costing models, and market / demand factors are often not considered.

Off-campus delivery raises a number of very interesting questions regarding the basic principles of course pricing. Often, employers and employees are interested in short courses or individual modules, rather than complete awards. Impact and benefits need to be commercial and immediate, rather than long term. Personal development activity is viewed as a business investment decision, with the clear expectation of bottom-line benefit. Furthermore, formal accreditation is not a primary driver for employers, though employees do see the value of recognised qualifications. Because the cost base of most universities is very high, including the costs of running campuses with all that that entails, the full economic costing approach to off-campus provision can result in prices that are uncompetitive and unaffordable. Private providers are often able to be more flexible and price competitive, and currently in the UK, they undertake 80% of in-company training. They do not have the same degree awarding powers that a university has, but if that is not a primary requirement for the paying employers, then that may not be a consideration when choice of provider is made.

The issue is this: If we do want more people with accredited higher level qualifications, then we will have to address the cost / price / value proposition in a creative way that enables HE providers to compete with lower cost base providers. In mechanistic terms, this is straightforward. In terms of culture, custom and practice, it is very challenging. Ultimately, those universities who want to deliver more off-campus, work-based learning activity, will need to address their cost base and/or pricing approach. Real estate will need to look very different in terms of shape, size, design and location. Staffing contracts will need to have greater flexibility too, as on average, >55% of the cost of running a traditional university is spent on human resources. This is way above that of other providers. Product development too is very expensive, and fewer and different products will be needed which can be efficiently and effectively adapted to match commercial requirements, providing the
agility that a competitive market place necessitates. It is likely that individual modules will have greater value than full awards, and curriculum design and accreditation processes and procedures are likely to need to reflect this. The key issue is that pricing will need to become market driven, and the supporting cost base and infrastructure will need to reflect this. One perhaps needs to consider the question as to why a work-based learner, supported by their company and requiring a specific, commercially oriented learning and development outcome, but who never actually goes near a campus, should be expected to fully contribute to this?

New Markets need New Promotional Approaches:
As universities have expanded and grown, locally, regionally, nationally and internationally, more resource is invested in promotional, public relations and advertising activity. This work is fundamental to ongoing recruitment and to developing the brands that are so important in a high-involvement decision process, which selecting a university now is for many would-be buyers. Given that most universities are offering relatively traditional full and part time awards, it should not be surprising that ‘marketing departments’ are very much geared up to supporting these through glossy prospectuses, traditional media advertising, educational partnerships, student recruitment fairs and increasingly the world-wide-web.

The development of new commercial markets, and how best to access these, is a challenge for any organisation, and a university is no exception. Those Universities actively engaged in directly working with employers, have adopted more business to business (B2B) approaches to promotional activity, including personal selling using a variety of brokerage models. Teams of business development specialists act as a conduit between the market and the supply chain. The idea is that they identify opportunity, ascertain commercial training development needs and requirements, and then find ways of sourcing solutions through the University resource base, or where necessary, associated partners. This B2B approach is direct and relationship based, managed through sophisticated customer relationship models (CRMs), and very different to that employed for traditional student recruitment. It is also very challenging to the way that Universities do things. University marketing departments have relatively little influence over the development of product and related delivery, which are usually ‘owned’ by Faculties and the academics therein, primarily to satisfy internal quality assurance and standards. If an opportunity is uncovered by a broker, the theory is that Faculties, or their equivalent, will innovate or re-engineer that which exists in order for it to meet market need. The reality is that this is very difficult to achieve, for a combination of people, process and resource reasons. University systems and structures, often established and embedded over many years, sometimes centuries, are simply not designed to work at speed or at the behest of external forces. To properly address in-company markets, and to become more demand-led, it is becoming clear that the development of a parallel set of product and service related processes will have to be developed in order that a brokerage model can work. This change is fundamental and potentially high risk, in that the implications are organisationally pervasive and external monitoring authorities may not be sympathetic to the underlying philosophy.

Engaging and Energising Academics to Drive Market Change:
Traditional academic culture and the customs and working practices that are associated with this are well embedded into most universities, often re-enforced by contracts of employment which lend themselves to many interpretations. Changing behaviours and expectations in this context is difficult, made more so because of the complexities regarding the allocation of overall academic workloads, the tensions that inevitably arise over determination of priorities at any moment in time, and not uncommonly, an inertia based on the premise that ‘what happens works, so why change it!’ More has been expected of academics over the past ten years in many universities, reflecting both global and societal change, but also relatively diminishing units of resource. This has led to what many academics regard as a managerialist approach, with implicit expectations of heightened accountability, transparency, targets with greater focus on performance and achievement of outcomes.

Work-based and work-related learning does not infer a simple re-cycling of traditional campus-based pedagogy in a work-based environment, and this is just beginning to be realised. Much planning, thought, effort and resource needs to be injected if this is to be done well, with the consequent change management implications. Such issues and tensions need to be anticipated, with innovative and creative solutions being developed. New career progression paths need to be opened which give clear signals that engagement and success in the development and delivery of the new agenda, does not carry discriminatory career risks.

For academics to engage, commit and ultimately drive this new agenda, there needs to be clear and transparent promotional opportunities to Reader and ultimately Professorial level. Their roles will include leading on the re-design of a radically different curriculum, focussed on a multiplicity of learning outcomes and delivered flexibly, relevantly and affordably. They will need to run parallel research projects and engage in appropriate scholarly activity which when taken together, create an expertise base which academically informs future developments. It is important to state that this is neither an easy, nor a fast process and getting the most intelligent of people to leave past models behind is challenging. A point to add is that should opportunities arise to appoint new blood, human resource and appointments processes and procedures need to be fundamentally
changed to reflect what may well be a very different type of person specification / appointment to that made in the past.

**Business Process Modernisation:**
As with people, academic processes, which underpin academic quality and integrity are often geared to a world where time and speed were not of the essence, and where selection rather than recruitment were more commonplace. Historically, Award validation processes could take over a year, and rarely less than six months. Module approval could be similar. Academic quality processes were, and still are, supply-side dominated. For employers and employees who have little time, are often paying for their courses and development and are operating in rapidly changing environments where they have to almost run to stand still, this is a problem. They expect to be treated as clients, with an appropriate responsiveness to their needs, and many universities who are trying to work more closely developing workforces in the workplace, are finding it very difficult to meet demand-need, not least because their own business processes make this very difficult. Non-academic processes can also be a problem. Online registration, online payment, online submission of work, and online receipt of information all challenge models that are ostensibly geared up to those who attend in time and place mode. In competitive terms, these day-to-day processes and procedures are critical, and off-campus, work-based learning does not work properly if they are not in-place and working efficiently and effectively. Furthermore, for these to work, an array of information systems need to work in harmony, which can also necessitate a major investment as many systems have evolved over time, and do not fully (or sometimes partially) integrate. As with other aspects, this is not just about technological systems. It is more about how people do things, and are able to respond to the changing circumstances and requirements. FutureSkills has very much highlighted this, and is now a major stimulus to driving change in our fundamental business processes.

In constructing a degree programme, individual modules underpin the curriculum and when taken together, eventually form the overall award. The design and structure of an award will ensure some form of academic coherence which ensures knowledge, skills and competencies are developed to the prescribed and appropriate level for that award. Module descriptors will lay out pre and co-requisites, aims, objectives, topics and themes, reading and assessment methodology. Some might make reference to skill, competency and behavioural development, though this is not universal at higher levels, where often the focus remains on knowledge dissemination and transfer, and the assessment of this.

**Pedagogy – the Key Marking Variable for Higher Education?**
Generalisation is always dangerous, but this model will be recognised to a greater or lesser extent by most university academics who are involved and engaged in campus-based delivery. There is perhaps nothing intrinsically wrong in this approach, which has survived for hundreds of years, and served many generations well, be they part of agrarian, industrial or commercially-oriented economies. However, as economies of the 21st Century become ever more globalised, knowledge-based and underpinned by instantaneous communications, achieving sustainable competitive advantage is increasingly difficult to achieve and maintain, and consequently, the pressure to constantly innovate with better products, services and business / production processes is unremitting. It helps to achieve this if a workforce is creative, ingenious and curious, with the mindset of always looking to do things more economically, efficiently and effectively. With an ageing demographic and workforce and the need for constant up and re-skilling, to ever-higher levels, there is an opportunity too for educators to develop new learning-oriented models of delivery that are responsive, fit for purpose, relevant, effective, affordable and delivered off-campus. The working understanding of the meaning of pedagogy is ‘the design of learning processes that lead to relevant learning outcomes’, and in the context of this paper, this could be viewed as the critical marketing variable, with pedagogic innovation creating a genuine source of competitive advantage in a market that is projected to grow for the foreseeable future. That infers the need to constantly research and innovate based on contemporary, but ever-changing, need.

**Extending the Marketing Mix for HEIs:**
It may be interesting to consider a range of other key ‘P’ marketing variables, built around the core seven. This by no means is an exhaustive list, but it perhaps serves to highlight the complexity of the total marketing mix that universities need to offer. In themselves, these merit detailed analysis but for the purpose of this paper, I will really raise the possibilities. Packaging is much more than the outer skin in which traditional, and simple products are wrapped. In the context of a university, it could include accommodation, earn and learn opportunities, meal deals and the many enrichment activities which in total support the rounded development of the individual. And of course, the balance of a package will vary with different categories of learners, reflecting their specific needs and the relative importance that they attribute in terms of value-added. There is perhaps nothing new in this, but the point to be made here goes back to Levitt’s question of ‘what are you selling?’, and conversely, ‘what are they buying?’. Contentiously, it might be argued that we over-promote the Award itself,
and under-promote other elements that the purchaser is actually more interested in. If so, that could have profound impact on not only what we offer, but how we offer it.

The world is rapidly changing, and the competitive environment in which we operate getting ever-more challenging. This begs the question about whether we are undertaking sufficient marketing research to inform the world as it will look like in the future, as opposed to how it appears now. Most multi-national organisations now spend much time, resource and effort on building models that project and predict likely future scenarios, as their lead times to make appropriate changes are long. This is certainly the case of all Universities, where degrees take three to four years to complete, and where the ongoing development cycle is often long. For example, based on projected demographic trends, if decisions are made to deliver higher level education into the work-place, then fundamental investment and divestment decisions will need to be made which of themselves carry very significant business risk.

As the balance of funding shifts from the public purse to the private individual, professionalism will become ever-more important in that it will become intrinsically linked, and indeed underpin, the whole learning experience. Debate can be had on what ‘professionalism’ means, but at the very least, it will have to include consistency, responsiveness, quality and the ability to (over-) deliver the promise that is being ‘bought’. In any complex organisation, this is easier said that done, and ultimately, the achievement of it will depend upon every individual employees commitment, ownership, engagement and personal responsibility to ensure that experience is as ‘sold’. In many universities, arguably this will necessitate a significant cultural change and realignment of priorities.

In the context of a demand-driven market economy, which higher education is now progressing towards, perception of value based upon the standing of a university, of the courses within, of those delivering them, or supporting their delivery and of the ‘whole experience’ is critical. Ultimately, perception has to be supported by every-day reality, but it can both be influenced and exploited. It is essential to fully understand users, influencers and markets’ aspirations, motivations and expectations, and then to weave this fully into the brand promise.

Physical resources create a conundrum for universities. Traditionally, these hinge around the campus with all which that entails – the classrooms, lecture halls, students union, playing fields, offices, cafe areas and residences. The cost of maintaining such physical assets is, as already highlighted, both huge and rising and usage by most measures is inefficient. However, there is little doubt that the attributes and appearance of physical assets has a significant impact on perception, image, reputation and status. Perhaps the questions which need to be asked are forward looking ones. In a ‘new world’ in which many aspects of funding are very likely to change – where there will be as many, if not more, older (working) learners as there are ‘traditional’ younger ones; where younger ones themselves need to earn and learn in equal proportion; where technology provides new delivery alternatives and indeed heightened user expectations; where new eco/environmental drivers gain greater significance; and where in general terms, economic, efficient and effective use of assets become business critical in a way that previously perhaps it has not been. A university with no buildings is difficult to conceive (though not impossible), and certainly in the United States, but spreading across the world, including the UK, the largest higher education provider there is now the private ‘Phoenix’ University which rents its buildings on a commercial needs basis. This gives rise to further questions around the need to actually own physical resources, which inevitably becomes restrictive in terms of market flexibility and agility, as opposed to alternate commercial arrangements. The key issue from a marketing perspective is to understand the value attributed by users to place-based resources – and that in certain markets, it may be less than is imagined. If that is the case, then transferring investment to other resources might bring significant commercial benefit, short, medium and long term.

Processes, procedures, systems and structures are what bind complex organisations together. Of themselves, they need to be efficient, effective and unobtrusive. They need to reflect the needs and requirements of not only paying users, but of other stakeholders too, reflecting statutory requirements around funding, legal and quality regulation and compliance. In many ways, business and academic processes have become organisational hygiene factors. It is assumed by all that universities will get them right, but this is a basic expectation which lever relatively little value-added. However, if something goes wrong, the implications are immensely negative profound. From a marketing perspective, getting core business processes right is fundamental to success, and this includes, for example, effective and pervasive online systems, efficient telephony services, reliable timetabling, good communication, being well organised and generally well cared for. In the last resort, there will also be an expectation of effective systems to handle complaints and provide redress if appropriate. Effective business processes factors increasingly provide the opportunity to engage with, and entice a market. Equally, getting this wrong can lead to almost instant commercial failure. We are all aware that society in general is now very intolerant of large commercial organisations which cannot respond to them fast, friendly, and fairly.

Participation can infer many things. On the one hand, it could be interpreted to mean a new market, based on a policy of widening participation aimed at those who traditionally have not been targeted nor engaged
with universities. It could also imply new partnerships with a range of delivery partners, for a variety of strategic marketing reasons. In the context of this paper, the intention is to highlight the importance of developing active supply and demand side participation and engagement in the learning experience, in its widest form. This reflects not only the complexity of ‘becoming educated’, but also the potential impact of the now pervasive virtual digital world to inform, influence and involve individuals in ways that previously could not be considered. Global networks based on common interests, can both easily and cheaply be accessed, thereby creating opportunities and challenges that hitherto had no relevance in the context of the learning environment. Now, arguably, they are integral to it and our pedagogic processes need not only to reflect this, but also to be based on the assumption that this is now a requirement of effective, contemporary learning. Today’s generation of learners now expect to have the support of their academics, technicians, support staff, immediate and virtual peers, all of whom add value to their overall experience.

The digital age brings many other new marketing challenges to universities. Fenwick (2008) talks about the importance of understanding what are often unwritten rules of digital permission. Digital gate crashing (in many forms, including spamming, unwanted blogging, misuse of social network sites, inappropriate texting and messaging) creates the same dissonance as turning up un-invited to a party. Increasingly, perception of an organisation rests on understanding the often unwritten laws of the ‘virtual jungle’, and not alienating digital natives by breaking these. The impact of any error in this respect is close to instantaneous, globally pervasive and almost always commercially devastating as even the best PR departments find it impossible to insert any control. Linked to permission is privacy. One of the great paradoxes of the digital age is that whilst access to information and people is close to instantaneous, to abuse this ‘privilege’ is to violate personal privacy. From a university marketing perspective, the key point is that effective cyber-communication is on the one hand critical, but that this needs to be targeted, measured, timely and useful. The line is fine, and much strategic and operational thought should be given to understanding the needs and expectations of learners to maximise the benefits that technology can bring.

If the marketing issues of participation, permissions and privacy can be understood, then the potential does arise to personalise an experience to fit an individual’s need at a moment in time. Specific, relevant and timely information can be sent them and learning opportunities and assessment can be tailored to meet their known requirements. Learning can become more portable in the sense that much of will need to be accessible on a just-in-time, anytime, anyplace, anypace basis. Furthermore, portability will extend the Bologna principle that credit points from one European university will be transferable to another, thereby facilitating another level of flexibility. The academic implications of delivering this are profound, but in a world that is increasingly characterised by consumer driven choice, instant gratification, high service quality expectation and supply side competition, then there is no reason to think that somebody, somewhere, will not be able to respond positively to achieve this. The implied challenges are perhaps the most difficult that universities have to face up, and respond to. Most are supply-oriented, with many systemic protective mechanisms built-in that currently support the status quo. The shift to a demand-led orientation will necessitate a fundamental review of all aspects of marketing.

Summary:
The world is changing rapidly, and Universities are no longer shielded from the implications and consequences emanating from pervasive political, economic, social and technologically driven change. The great Austrian economist, Joseph Schumpeter postulated that entrepreneurship and innovation are the only ways of sustainably responding to such challenges. This can be multi-faceted, as has been argued in the Paper. There are many new markets that Universities could, and should, engage with. To do this cost efficiently and learning effectively, they must fundamentally re-think how they buy, use and prioritise their resources. It is easy to talk about becoming demand-led but much less easy to achieve this. Using long established, core marketing variables, as a reference point, it is clear just how far away many traditional universities are from being able to be demand-oriented. Moving into any new market is not easy. Neither is developing new products and related services and procedures. Societally and economically we need work-based and work-related learning to be successful, and indeed, to work well. The question is whether Universities can rise to this challenge. One would like to be hopeful, but the reality of the challenge is immense. Might a better market solution emerge outside traditional university supply? The likelihood of this is perhaps now much greater than it was three years ago, as State support diminishes and the burden of cost falls directly onto the consumer.

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A socratic dialogue about teaching with relevance in a chaordic world

Thieu Besselink, The Learning Lab.

The socratic dialogue as we practice it is a form through which participants enter conversation around a shared philosophical question and collaboratively construct answers that are developed from the personal experiences and insight from within the group. Participants share responsibility for the development of the conversation. It was developed by Heckman in the last century and has seen some change since, but the essence remains, which is that it makes the group a purposive research unit for the duration of the conversation.
Workplace Learning to Create Social Quality: Learning as Creation in Social Work in the Netherlands

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Abstract: There is much debate about the gap between business schools and the business world (Gosling and Mintzberg, 2004; Bennis and O'Toole, 2005). When researchers and practitioners are confronted with the dynamic complexity of the real world (Mahoney & Sanchez, 2004) it becomes evident how limited the ability of researchers and managers is to fully comprehend, describe, explain, and (perhaps) predict the world as it is and as it is becoming. A mission of reconnecting theory building from the outside and theory building from the inside requires a process of interconnected research and practice in which interactions between managers and researchers have a purposeful focus on theory building. The present base-line study focuses on workplace learning and understanding learning as creation (Kessels, 1995, 1996a, 2001b; Verdonschot, 2009) to bridge the gap between education and practice addressing the complex real world issue of poverty and social exclusion in the Netherlands. Lessons learned from workplace learning as creation in practice may provide input for educational innovation, closing the gap between the real world of practice and the world of education.

Introduction

There is much debate about the gap between business schools and the business world (Gosling and Mintzberg, 2004; Bennis and O’Toole, 2005). One of the arguments is that business schools focus too much on ‘scientific’ research and lack relevant business context and real world experience. When researchers and practitioners are confronted with the dynamic complexity of the real world (Mahoney & Sanchez, 2004) it becomes evident how limited the ability of researchers and managers is to fully comprehend, describe, explain, and (perhaps) predict the world as it is and as it is becoming. A mission of reconnecting theory building from the outside and theory building from the inside requires a process of interconnected research and practice in which interactions between managers and researchers have a purposeful focus on theory building. Dynamics in business force business schools to adapt innovate and learn from real world social issues and from learning in the workplace, connecting scholarly work with business practice (Thijssen and Gijselaers, 2007) for the benefit of both improving practice and developing theory. Thereby combining relevance and rigor to contribute to closing the gap between business schools and the business world to create value through life-long learning.

To be competent across working life requires workers to be able to effectively meet and respond to the particular and changing requirements of work and workplaces (Billet, Harteis and Eteläpelto, 2008). According to Kessels, learning with the intention of innovating is closely related to the concept of knowledge productivity (Kessels, 1995, 1996a, 2001b). In this concept of knowledge productivity, the notions of learning and innovation come together. Kessels (1995) defined knowledge productivity as the process in which employees trace relevant information, use this information to develop new abilities, and apply these abilities to gradual improvement and radical innovation of products, services and work processes. Educators need to become engaged scholars to understand complex reality (Van de Ven and Johnson, 2006) in the process of knowledge production to be able to redesign educational programmes.

The present study focuses on understanding learning as creation (Kessels, 1995, 1996a, 2001b; Verdonschot, 2009). Traditionally the concept of ‘learning’ has been related to formal education, whereas its use in the context of work is a relatively new phenomenon (Tynjälä, 2008). Interest in workplace learning has expanded since the beginning of the 1990’s. The reason for this expansion is the unprecedented rapid change in society and working life that takes place during the past decades. The rapid development of information and communication technology, the growing production of knowledge in the economy, increasing internationalisation and globalisation as well as changes in occupational structures and in the contents and organisation of work have challenged not only educational institutions but also work organisations to develop new ways of ensuring that the level of competence of the workforce meets these challenges (Thijssen and Gijselaers, 2007).

Thus continuous learning has become important both for individuals operating in the learning society and for organisations competing in international markets (Thijssen, Maes and Vernooy, 2002; Tynjälä, 2008). Tynjälä (2008) proposes that the development of vocational and professional expertise requires the integration of different types of knowledge, the interaction between theory and practice, and that the development of the
workplace as a learning environment both for employees and students is important to ensure the continuous development of competence.

In literature however, a variety of meanings are provided for workplace learning. There is no singular definition or unified approach (Candy and Matthews, 1998; Lee, Fuller, Ashton, Butler, Felstead, Unwin and Walters, 2004). Boud and Garrick (1999) observe...the workplace has become a site of learning associated with two quite different purposes... The first is the development of the enterprise through contributing to production, effectiveness and innovation; the second is the development of individuals through contributing to knowledge, skills and capacity to further own learning as employees and citizens in the wider society (p.6).

Several reviews of literature focus on aspects of workplace learning (Lee et. al., 2004; Tynjälä, 2008; Billet, Herteis, Eteläpelto, 2008; Verdonschot, 2009) such as the nature of workplace learning as compared to school learning, the role of informal and formal learning, approaches to learning (learning as a process of acquisition, as a process of participation, learning as a process of creation), levels of learning (individual, groups, communities, organisations, networks and regions), workforce development and the comparison between expansive and restrictive work communities (Fuller and Unwin, 2004). Workplace learning as an emerging field at this time is fragmented and lacks empirical evidence. However both business schools and businesses show an increased interest in workplace learning. It is proposed that workplace learning may contribute to closing the gap between business education and the business world to innovate education and improve practice.

In the present study we follow Kessels (1995) in viewing workplace learning as creation, and we will apply this understanding to better understand the real world problems of poverty and social exclusion, connecting social work in practice and learning to create social quality. In order to understand the complex real world issue of social exclusion we draw from literature on social exclusion and social quality, introduce our problem statement and a conceptual model for this study. In section 2 we describe the method of this base-line study and in section 3 results are presented. Discussion, conclusion, implications for educational innovation, as well as recommendations for further research are presented in section 4.

**Social exclusion defined as lack of social quality**

Social exclusion can be defined as the inability of an individual to participate in the basic political, economic and social functionings of society in which he/she lives (Tsakloglou and Papadopoulus, 2001) and as a network of social exclusions (Vranken, De Boyser and Dierckx, 2005); “…a network of social exclusions, stretching across several area’s of individual and collective existence. It separates the poor from general accepted living of social exclusions (Vranken, De Boyser and Dierckx, 2005); “...a network of social exclusions, stretching across several area’s of individual and collective existence. It separates the poor from general accepted living of social quality (Van der Maessen and Walker 2005). Van der Maessen and Walker (2005) combine the perspective of the individual as Tsakloglou and Papadopoulus (2001) propose and extend this perspective to include the role of society and as such provide a broader concept according to the perspective of Vranken et al. (2005) who also propose to take into account several area’s of individual and collective existence. Van der Maessen and Walker (2005) investigate the tension between biographical development and societal development on the tension between systems, institutions and organisations and communities, families, networks and groups. According to the emerging concept of social quality, the social world is realised in the interaction (and interdependencies) between self-realisation of individual people as social beings and the formation of collective identities, which occur in both basic tensions between biographical development and societal development. Van der Maessen and Walker (2005) call this the constitution of the ‘social’. In this study, we take Van der Maessen’s view as we define poverty and social exclusion as a social learning problem because it allows us to take a broader view of individual and collective existence and introduces a range of four clearly defined domains of social quality with indicators. These domains can be seen as networks of exclusion. Four basic conditions determine the opportunities open for these processes or social relations to develop (Van der Maessen and Walker, 2005): (1) People must have the capability to interact (social empowerment). (2) The institutional structural context must be accessible to them (social inclusion). (3) People must have access to necessary material and other resources that facilitate interaction (socio-economic security). (4) The necessary collective accepted values and norms such as trust, which enable community building (social cohesion) are evident.

In the light of these considerations social quality is defined as: the extent to which people are able to participate in the social and economic life and the development of their communities under conditions that enhance wellbeing and individual potential. Thanks to this capacity they will contribute to society and the outcomes will influence the conditions for self-realisation (Van der Maessen and Walker, 2005). Details of the indicators and measurement of social quality have been composed in 14 European Member States (Van der Maessen and Walker, 2005). The term social quality provides a wider and multidimensional approach to the quality of life, than does poverty or social exclusion. Van der Maessen and Walker (2005) identified four domains of social quality as formulated below in figure 1:
Figure 1: Domains of Social Quality (Van der Maessen and Walker, 2005)

<table>
<thead>
<tr>
<th>Socio-economic Security</th>
<th>Social Cohesion</th>
</tr>
</thead>
<tbody>
<tr>
<td>Financial resources (income sufficiency and income security)</td>
<td>Trust (generalised and specific)</td>
</tr>
<tr>
<td>Housing (security and conditions) and the environmental conditions (social and natural)</td>
<td>Other integrative norms and value (altruism, tolerance, social contract)</td>
</tr>
<tr>
<td>Health and care</td>
<td>Social networks</td>
</tr>
<tr>
<td>Work (employment security and working conditions)</td>
<td>Identity (National, European, regional, community and interpersonal)</td>
</tr>
<tr>
<td>Education (security and quality)</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Social Inclusion</th>
<th>Social Empowerment</th>
</tr>
</thead>
<tbody>
<tr>
<td>Citizenship rights</td>
<td>Knowledge base (application, availability, user friendly)</td>
</tr>
<tr>
<td>Labour market (access to paid employment)</td>
<td>Labour market control over contract, mobility, work life balance)</td>
</tr>
<tr>
<td>Services (public and private: such as health, housing, education, social care, financial services, transportations, civic/cultural services)</td>
<td>Openness and supportiveness of institutions (political, economic, support for collective action, cultural enrichment)</td>
</tr>
<tr>
<td>Social networks (family life, friendship and neighbourhood participation)</td>
<td>Personal relations (support both personal and social)</td>
</tr>
</tbody>
</table>

When analyzing the domains of social quality as presented in Figure 1 (Van der Maessen and Walker, 2005), traditional poverty studies focusing on material deprivation can be placed in the domain of socio-economic security on the top left and generally are limited to measuring income as an indicator for poverty. Social inclusion as a new focus for policy development in recent years can be placed in the domain of social inclusion on the bottom left of figure 1, where in the Dutch situation the focus of the Ministry of Social Affairs (2006) in the last decade is on increasing access to the labour market (SZW, 2001). According to Van der Maessen and Walker (2005) social quality comprises not only socio-economic security and social inclusion. Social quality takes also into account social cohesion and social empowerment. From this concept we can derive that indeed four basic conditions for social quality must be met, if we wish to learn how to overcome poverty and social exclusion: (1) Access to resources to gain socio-economic security. (2) Shared values and trust to strengthen social cohesion. (3) Access to networks and participation to enable social inclusion. (4) Capability to interact through social empowerment.

In this study we define poverty as lack of social quality in networks of social exclusion in all four social quality domains and as such as a social learning problem. The aim of the study is to extend our understanding of poverty through workplace learning as creation. The concept of social quality allows the research to take into account new directions of research in domains of social empowerment and social cohesion, in addition to socio-economic security (traditional poverty) and social inclusion (in reference to social exclusion).
Problem statement
Based on the debates in literature on workplace learning as creation, social exclusion and social quality as described above we formulated the following workplace learning problem for the empirical part of the study: What are the perceptions of social quality by people who are living in networks of social exclusion on the domains of socio-economic security, social cohesion, social empowerment and social inclusion, and what are the workplace learning requirements for social service organisations in the Netherlands to improve social quality? In order to address the workplace learning problem as stated above, a conceptual framework is presented below in Figure 2.

The conceptual model starts from the Workplace Learning Problem of the Public social service organisation on the left of the model with the ‘current treatment’ in interaction with the client life world, aiming to identify social quality effects and the level of inclusion of the ‘current treatment’ as input for future workplace learning and the design and creation of a ‘new treatment’ in future studies. The conceptual model can be described as follows: what are the social quality effects (3) of the current treatment of public social service organisations in the Netherlands (1) when studying the clients’ life world (2) on the aspects of access to resources, shared values and trust, access to networks and participation and the capability to interact and on what level of exclusion are clients now (4)?

The measurement of exclusion or inclusion at the far right of figure 1 follows Vranken et al. (2005) and Tas (2000) where poverty is seen as a multi-dimensional concept of a network of exclusions and range from type A (fully excluded) to type B (somewhat excluded), type C (somewhat included) and type D (fully included). These types of exclusions are generated from earlier research (Thijssen, 2010) and are explained below. The following scales of measuring 4 aspects of social quality are used: poor, fairly good, good, very good and excellent with the aim to develop a composite measure of social inclusion (Rosnow and Rosenthal, 2008).

Method
The authors, as innovation consultant and engaged scholar, were asked by NGO Splinter (defending clients interest) and the Province of Zeeland to address the complex issues of poverty and social exclusion through workplace learning with clients, counsellors and managers of social service organisations to increase understanding of effects of the ‘current treatment’ as input for the collaborative design, creation and evaluation of a ‘new treatment’ in further studies from 2001-2008.

This study is part of a time series design (Rosnow & Rosenthal, 2008) with the following research strategy: (1) base line study into the ‘current treatment’ and it’s effects on the client’s life world and levels of social exclusion, generating requirements for learning design (2) collaborative design and development of a ‘new treatment’ through workplace learning (3) implementation of the ‘new treatment’ in practice (4) measuring the effects of the ‘new treatment’ on social exclusion (5) roll out to 6 cities (6) explicating learning. This study is limited to the first step of a base line study only.

The study is designed as a quasi experiment with a time series design approach (Rosnow and Rosenthal, 2008 pp 184-185). In time series design the defining characteristic is the study of variation across some dimensions over time. When the effects of some intervention or ‘treatment’ are inferred from the comparison of outcome measures obtained at different time intervals before the intervention, the data structure is called an interrupted time series design (Rosnow & Rosenthal, 2008 pp 184-185). This study is the very first step before the intervention in the workplace to gain insight in the clients’ real life world and the current ‘treatment’ by social service organisations, to provide input for aldermen, managers of social service organisations to develop a new ‘treatment’ or approach in later studies through workplace learning. The research site in the Province of Zeeland can be considered a good choice as cities and social service organisation agreed to longitudinal research supporting the search for a ‘new treatment’ that works better than the ‘current treatment’.

Participants in the base line study
The subjects in the base line study were 31 people registered as clients of the 3 participating social service organisations drawing social security payments over an extended period (10-15 years). These 31 people comprised 10 male and 21 female. 10 subjects were married, 11 divorced and 5 single. Ages ranged from 1 <30, to 9 between 31-40, 13 between 41-50 and 5 between 51 and 60. They were invited randomly to participate on a voluntary basis and the interview was explained and confirmed in writing. The innovation consultant and the researcher visited the clients at home.

Procedure
The selection of interviewees from the databases of 3 participating cities was a-select. The interviews were conducted in an open, dialogical and informal way with the aim to establish trust and openness to gain deep understanding of the client’s life world and biography and the type and level of social exclusion. The interviews
were held at the client’s home and lasted approximately 60 minutes. The interviews focused on the following themes: (1) Personal history (biographical data as age, sex, marital status, children, health, debts, social networks) as elements of trusted relationships and as elements of networks and participation. (2) Career and education (access to resources and socio-economic security). (3) Ambitions and basic attitude (capabilities to interact) (4) Effectiveness of social institutions in helping to realise ambitions (elements of social empowerment). The research resulted in a Photo book of 31 detailed portraits of people in poverty (Tas, 2002) available for analysis. The Photo book allows for limited quantitative analysis by the researcher of the clients life world and the effects of the current ‘treatment’. The portraits, however allow for deeper qualitative analysis of clients perceptions in respect to the situation they find themselves in and the role of the social service organisation.

**Measures**

The independent variables are derived from the social domains of social quality (Van der Maessen and Walker, 2005) as presented in figure 1.

**What is the current access to resources (socio-economic security) of an individual?**

The following measures are studied: Financial resources; Debts; Health; Education.

**What is the current level of shared values and trust (social cohesion) between the individual and the social service organisation?**

The following measures are studied: Trust in social service organisation; Participating in social networks.

**What is the current level of participation (social inclusion) of an individual?**

The following measures are studied: Access to paid employment; Effectiveness of social service organisation.

**What are the current capabilities to interact (social empowerment) of an individual?**

The following measures are studied: Support from personal relations; Supportiveness of social service organisation.

The dependent variable in this study is the level of exclusion (Vranken et al., 2005) expressed in levels ranging from type A fully excluded, B somewhat excluded, C somewhat included and D fully included.

**Results**

Summarising the current state of the clients life world as an effect of the current ‘treatment’ indicates the following: Exclusion type A 13 fully excluded; B 17 somewhat excluded; C 1 somewhat included and D 0 fully included. The main discriminator between A and B exclusion type is the possession of a trusted, social network structure in place.

**Domain: Socio-economic security**

All 31 subjects in this study receive basic social security payments. The possession of debts was reported 11 times. Poor health was reported 25 times. The educational attainment level included: Education basic 10, Education intermediary 9 and Education advanced 12.

**Domain: Social cohesion**

Shared values and trust in the social service organisation is reported positive in 6 cases and negative in 25 situations. Participating in (private) social networks is reported 18 times.

**Domain: Social inclusion**

Access to part time paid employment is reported 1 time. Effectiveness of social service organisation is reported positive in 6 cases and negative in 25 situations. Social networks of family and friends were reported 18 times as indicator of social cohesion.

**Domain: Social empowerment**

Support from personal relations is reported 18 times. The supportiveness of social service organisation is viewed negative in 25 situations.

The findings, despite the small sample of N=31, are in line with findings in Europe in the year 2006, from EU SILC research (Jehoel-Gijsbers et. al., 2009). It confirms that people with a lack of education (19 in this study), low income (31), one-person households (5), one-parent households (21), non European descent (2) are more at risk and subsequently more excluded. Respondents confirm that they have little trust or even distrust in the social service organisation to help them solve their predicament. In fact in 25 cases respondents report in detail about either the lack of interest of institutions and/or the lack of coordination between institutions. Examples of which are quoted below:
“The social service organisation is very conservative in supplementing income for a washing machine or other essentials. The financial aid for decorating and furnishing the home was also very limited. What bothers most is the untrustworthiness and the subjectivism. If you are so unlucky to encounter a counsellor who rigidly applies the rules, then you are the victim. Policy is not on paper and you never know what you are entitled to. In other cities things are possible that in this city are impossible. That is sour. Also the counsellor writes items in your file that are not true. The institutions concerned with integration such as the labour organisation and the integration bureau as well as the social service organisation do not communicate and coordinate well at all.” (Interview 3: Single woman between 30 and 40 with 3 children).

“My contact person at the social service organisation is good, but the city as an institution is inadequate (not trustworthy, stingy and always reorganising). I am very critical of the client board. Members are only interested in the extra pay. They must read government documents without understanding what they read. They haven’t the education for it. It is all fake.” (Interview 5: Woman between 45-55 children from various relationships).

“Many conversations are about control. The counsellor is not interested in who you are, only in the details where you may swindle.” (Interview 19: Woman between 40-45, one daughter, divorced).

“The social service organisation has done what it is supposed to do: provide social security benefits. Deals well with debt provisions.” (Male between 60-65 married and 3 children).

This study confirms that out of 31 respondents 13 are fully excluded (situation type A), and 17 are somewhat excluded (situation type B) and 1 is somewhat included (situations type C). Exclusion can indeed be defined in four basic dimensions of (1) Income, (2) Type of exclusion, (3) Level of exclusion and (4) Time or duration of exclusion as proposed by Vranken et al. (2005). This base-line study indicates that, the ‘current treatment’ with the focus on socio-economic security, is not perceived as effective by clients. The black box of the client’s life world is opened to a certain degree in this study, indicating the need for a ‘new treatment’ that goes beyond the current focus on monetary and regulatory issues. The current focus of the Public social service organisation on socio-economic security does not solve the social exclusion problem. No attention is given to the clients’ life world in the remaining domains of social quality such as social cohesion, social empowerment and social inclusion. Based on these early results, it can be recommended that a ‘new treatment’ should address all four domains of social quality. And that the social work practice is designed in such a way that trusted relations are built, enabling clients to get included and to participate in society. These general requirements for designing and developing a ‘new treatment’ were shared by the innovation consultant and researcher with clients, counsellors and managers for workplace learning in the 3 participating cities in workshops as input for the design of a ‘new treatment’ in the next phase of the research.

Discussion and conclusion
This study focused on workplace learning as creation for social quality and addresses the following learning problems: What are the perceptions of social quality by people who are living in a network of social exclusions on the domains of socio-economic security, social cohesion, social empowerment and social inclusion, and what are the social learning requirements for social service organisations in the Netherlands to improve social quality? Insights from the clients’ perspective on the role of institutions including the social service organisation confirm that the ‘current treatment’ is not effective and that a ‘new treatment’ should take into account the following more detailed requirements: ‘Treatment’ of clients should focus on more than socio-economic security and include enabling treatments in area’s of trusted relationships, enable building capabilities for interaction and participation in social networks. It is confirmed in this study, that social service organisations currently focus on monetary and legal issues and in some cases on work. It is not clear from our data if counsellors pay attention to other aspects of socio-economic security (Van der Maessen and Walker, 2005) as: housing (Somerville, 1998), environmental conditions, health and care, education. Now that more insight in the clients life world is available, engaged researchers have proposed a new more productive mindset of clients in a situation of poverty and social exclusion that they should not be regarded as a ‘granite base’, but rather as ‘architects and builders’ of their own life worlds with the social services as the ‘main contractor’ to build trust, empower by helping to explicate personal survival strategies and planning for social inclusion (Van Damme, 1999).

Implications
Implications for educational innovation are that design principles for a new and more participatory and socially oriented approach for workplace learning as creation should include the role of building trust in establishing relational quality between the public service organisation, other institutions and the client. First indications are that trust and empowerment may better enable clients in a situation of poverty and social exclusion to take charge of the design of their own lives and to construct and co-construct it accordingly. Understanding the effects of the ‘current treatment’ as input for workplace learning allows for an improved connection between
practice and theory on workplace learning and social quality, thereby making a contribution in closing the gap between real world complex issues and education.

Limitations of this study
These early notions for a potential new ‘treatment’ have clearly not been fully dealt with in this base line study. As stated this base-line study aims at overcoming the lack of insight in the client’s life-world and open the black box to gain fresh insights. This is clearly just a first step of a much longer learning and creation process. The limited number of respondents (N=31) in this study is a limitation of this study and findings cannot be generalised. Findings are no more than early indications and are not representative for other populations. Further research on a larger scale and in other research settings is needed.

Recommendations for further research
The findings of this study provide a base line measurement for a time series design on the effects of the current ‘treatment’ by the social service organisations in the Zeeland case in the Netherlands from 2001-2008, and provide input for the design of workplace learning as creation for a more inclusive and possibly more effective ‘new treatment’. For engaged scholarship as required to close the gap between business schools and the business world (in this study the social world) critical reflection on the role of educational institutions is needed, new missions and vision are needed to close the gap between practice and theory development and as a consequence radical redesign of curricula will be needed. From fixed courses where students study issues and cases from text books, courses will need to address complex real world issues engaging students, teachers, researchers and practitioners in workplace learning as creation, combining relevance and rigor for the benefit of society. The next phase of this study will explore, describe and explain issues of educational innovation in workplace learning as creation and the implications for business schools in closing the gap between education and practice through life-long learning inside and outside school (Van Damme, 1999).

References


Quo Vadis Universitas

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Introduction
In 2012, tuition fees in England will treble, further changing the relationship between provider and user. This will redefine the modus operandi of universities, with much greater emphasis on customer (learner) satisfaction. This will be re-enforced though published league tables, in which student satisfaction will be measured and heavily weighted, thereby materially influencing final rankings. To many this represents the antithesis of the core values of a university and is bound to lead to conflict and confusion since introducing quasi-market economics into the university system creates a new dynamic with many repercussions. Not only are significant sums now spent on marketing, but also on regulation, compliance, complaints and litigation, all of which absorb academics’ time, distracting them from other duties. To counter these trends a more mechanistic approach to assessment and feedback may be emerging, which does not necessarily enhance deep learning and personal development. Furthermore, attending university is now more likely to be an investment decision, whereby the cost of study is weighed against potential future earnings. This in itself creates a different dynamic, influencing subject choice, the perceived value of the brand of the university and the individual focus on gaining a well classified degree, perhaps at the expense of a more rounded education and experience. Given these changes, do universities know what their primary purpose and raison d’être is?

Questioning the traditional model
Traditionally, at the heart of the mission of a university is both individual and organisational inquisitiveness and curiosity; the hunger and need to find out more and to discover, create or re-interpret knowledge which leads to deeper understanding of our universe resulting sometimes in the emergence of new ideas and technologies which positively impact on our everyday lives. Arguably, the university system has provided on-going continuity between generations, ensuring that traditional knowledge has been systemically captured, further developed and passed on, to create an ongoing cycle of improvement. This process is underpinned by the principle of academic freedom, a fundamental tenet to ensure that existing knowledge, and its interpretation, can be challenged without fear of retribution on the individual or their host institution. Indeed, this may well be what some, or many, academics currently understand to be the true purpose of a university. This approach and model has an enticing simplicity, but it is anachronistic.

Two fundamental questions need to be asked. The first relates to the principle of the creation and ownership of knowledge. The original university paradigm assumed that it was in and through universities and their academics that significant new knowledge was generated – in terms of both quantum and importance. In the world in which we now live, corporate research and development budgets dwarf those of most universities. Furthermore, with our modern information infrastructure, access to knowledge is no longer dependent on libraries or other place-based repositories. The complexity and sophistication of our modern knowledge base increasingly necessitates inter-, intra- and cross-disciplinary working, based upon newly constructed, often commercially oriented collaborations and partnerships, which in many ways are the antithesis of the domain-based organisational structures that characterise many, if not all, universities today. Furthermore, small businesses now play a very important role in both creating and commercially applying knowledge, and their success is not so much based upon large budgets, but their ability, agility, creativity and innovativeness.

The second question relates to the cost and funding of our university system. It could, and increasingly is, argued that where the state pays for the significant costs of running these fiercely autonomous institutions, albeit indirectly, there has to be a political quid pro quo. However, the difference may now be to do with ever-changing government agendas, the speed and unpredictability of change, and their motivation for what might be seen as multi-faceted interference that often lacks consistency and continuity, is ill conceived, incoherent and short sighted, opportunistic and ideologically motivated and at worst, a crude and modern form of gerrymandering and social engineering.

If this is true, then little wonder that we struggle to get a clear understanding of what the purpose of a university now is. Universities themselves have to try to make some sense from the ensuing chaos, and significantly, this perhaps further exacerbates the situation. In the UK, their position is made worse by virtue of the fact that on the one hand, they are fiscally and legally autonomous institutions, but on the other, most are overly-dependent on funding sources which, irrespective of the quasi-market, the state controls. They have become opportunistic, often seeking short term competitive advantage through responding to incentivised initiatives. As a result, universities are increasingly different, and to talk homogeneously of what a university is might be conceptually flawed.
The end of the baby-boomer generation

One of the huge challenges of our time relates to a rapidly ageing population, and universities need to become a long term, sustainable part of the solution. The demographic structure of the developed world is rapidly changing. The post second world war baby boomer generation is now working its way through, and medical and health care advances now mean that average life expectancy has increased by over twenty years in a fifty year period, from 67 to 87. This is remarkable, and of itself, profound. When added to the ability of families effectively to choose when and indeed whether, to have children, and birth rates falling to less than 1.4 from nearly 3 in 1945, one can easily anticipate huge economic and social consequences. In the UK, by 2020, the population is projected to grow to 67 million. Those aged over 65, a traditional proxy for retirement, will increase by 33% in this period, taking this sector of traditionally economically inactive groups to 21% of the total population. If life expectancy continues significantly to rise as is predicted, then this percentage will further increase.

In the UK, the Hutton Review has been looking at these very issues, and even before new legislation is developed, state retirement ages have been increased and are likely to rise further still. No longer is there a legal requirement ‘to retire’ and indeed, Statutes have already been passed which legally treat ageism in the same way as discrimination based on race, gender, sexual orientation and disability. This of course is a good thing per se, but it changes the fundamental relationship between the ageing person, the state and the employer, and in its wake it will give rise to new needs and requirements – not least the need to re-skill and up-skill older people for longer. Assuming that developed economies remain dependent on the creation of high value added goods and services, predicated on knowledge-related infrastructure, then there will be a need to educate older people to a much higher level than is currently the case. This almost infers a philosophical re-adaptation of the rhetoric relating to lifelong education, for the greater good, to the necessity and reality of lifelong learning for lifetime working, whatever that may mean! What is certain is that universities should have a clear part to play in this – indeed, older learners may well become primary markets for them. However, currently, most are both geared and resourced to educate younger people, and have far less expertise in the andragogy needed to deliver to those that are much older.

Space management

Alongside these challenges are other systemic changes that have a material impact on the affordability and access to our current system, and the medium term sustainability and viability of it. Huge financial investment has been made in university real estate, and continues to be. The cost per square metre is significant, averaging in the UK over £400 pm² including depreciation charges. Many universities have hundreds of thousands of square metres of space, and therefore an average sized university (150,000 m²) can easily spend £45m per annum on the capital, revenue and debt servicing of this estate. By any standards, this is a huge investment and often represents close to 33% of the turnover of a typical university. With staffing costs running at an average of 55% of turnover, that leaves only 12% to invest in other things, including investment in the power and opportunity provided by new technology. At the very least, this huge and inflexible cost base makes the typical university rigid, in-agile and potentially unresponsive to new demands that need, want and expect demand-led engagement. Clearly, costs need to be viewed in light of utilisation. With high usage, the rationale for the expenditure may be easier to make.

One can debate usage statistics, but given that most universities operate only two academic terms for full time under-graduates, for most by far the biggest segment of their learning community, which equates to c32 weeks of the full calendar year, then one can instantly sense that for a third of the year, much teaching space will probably not be well used. Usage rates of academic staff offices are relatively low (they teach and have other duties that do not require fixed office presence), and ‘void’ spaces including corridors and rest rooms, compound the inefficiency. Arguably, this may boil down to an average real annualised usage rate of 25% or less. At the very least, questions need to be asked about any return on investment that consumes 33% of turnover and yields a 25% usage rate.

It is hard to see how this is economical or efficient, even if effective when in use. The concept and reality of learning effectiveness itself begs another question – this time a pedagogic one. Is university real estate, and specifically classrooms, lecture theatres, seminar rooms and other learning spaces, designed to meet not only place-based teaching input needs, but also generate creative and effective learning environments? For example, do they have adequate power for students to plug in their laptops, electronic notepads and the array of modern communications tools that we all know they now have? Do they have ubiquitous, fast and reliable wireless connectivity? Are the lines of desks in most classrooms really conducive to participative learning as opposed to more traditional didactic teaching? If we are genuinely moving from ‘Sage on the stage’ towards ‘Guide on the side’, then it can easily be argued that what we have invested so heavily in is no longer appropriate to create an effective learning environment that develops, nurtures and measures not only knowledge, but a wide variety of skills, competencies, behaviours and mindsets, all of which are increasingly regarded as important employability attributes.
Efficiency, effectiveness and value for money

As public and private finances become tighter over the coming years, in direct consequence of the impact of the banking crisis and subsequent economic collapse, efficiency, effectiveness and value for money are likely to become more important in all walks of life, not least universities. In the UK, but many other nations too, learners and beneficiaries, including current and future employers are likely to have to pay a much bigger proportion of the cost of their own education, from which they derive many benefits both directly and indirectly. Despite government sponsored funding support packages for tripled fees, it is clear that graduate debt levels will treble from 2012 and this is likely to lead to changed ‘consumer behaviour’ involving different academic choices, selection and re-prioritisation of choice criteria. Future employment, employability and prospects will be critical to investment decisions, whether we as academics like this instrumental approach or not! There is great concern over the impact of those from families with no history of involvement with higher education who may well be more debt adverse than those who have more income and inclination to invest this is in a university education. Potentially, this could reduce social mobility still further, which politically remains a very sensitive issue. Given the demographic changes already alluded to, this could have profound and negative impact upon the workforce of the future and the knowledge, skills and competencies that will be needed to sustain the knowledge-based economy.

Potentially, this could provide new opportunities for those universities, or indeed other private providers which can deliver a recognised and credible university level award, such as Phoenix, BPP and Kaplan, to think laterally, be more demand responsive and offer a better value for money proposition to would-be consumers. This is likely to involve more technology-enhanced delivery, less face-to-face interaction, more work-based and work-related learning, less campus-based, more emphasis on business-related benefits and return on investment, with a short payback period, and less on intrinsic educational value, and potentially a greater demand for shorter units of higher level learning, with less constraints imposed around academic coherence, and full degree programmes of study. The ability and flexibility to earn and learn may well become a defining consumer trait. That is not to comment on whether these changes are good nor bad, but to indicate that there may well be markets that will pay if such an approach is adopted. Price competitiveness, global competition and comparison will become critical variables in the marketing mix of those providing university qualifications (in the UK), and with current pricing constraints being relaxed and removed, the dynamic of the market place is likely to change significantly. How and whether established universities will be able to respond to this is open to question, and new private providers and indeed companies themselves, are evaluating options that may now be open to them.

Pedagogy, the crucial variable

The marketing mix includes what marketers refer to as their ‘P’ variables, of which there are anything between four and twelve commonly referenced. At this juncture, one might add a specific ‘P’ for higher education, which should already underpin that which we do. That is pedagogy. If we can take the opportunity to look at the whole landscape as it now is, gaze ahead and then innovatively re-think how we deliver and distribute our learning, making better use of technology, how (and what) we assess, and how we support learners, then we might well find that we attract those that the system has always missed, or who will start to opt out on a perceived cost/benefit basis. It is hard not to concede that the time is right to fundamentally challenge our long established academic delivery and quality assurance mechanisms, which originated in a totally different era, where opportunities and constraints were very different. There is evidence that change is taking place, but this is often relatively peripheral. Every day, as a commuter, I see thousands of people using ever more sophisticated mobile technology for a plethora of purposes. Cheaper and better tablet computers and faster and more reliable mobile internet connections can only exacerbate this trend. Furthermore, more people now have to commute further and more often, as the nature of work and employment changes. Technology can help to make commuting time much more valuable and useful, and there is no reason why academic study cannot compete for use of this time, if appropriate digital content is constructed. Increasingly, our lives are less dominated by the concept of place and space; we multi-task and fit things in around other activities; sometimes we have more time than others, so we need to be able to accelerate and decelerate as time permits. This is the reality of the everyday life of so many around the world, and universities need to start to consider how they can present their products and services in a way that a significant, and growing, niche market requires. As academics, we need to embrace the opportunity, and use our expertise to benefit our students as we always have, just differently, based on circumstances and resources now available. Most other service industries have had to adapt the way that they operate, and we too have perhaps reached that point.

Table 1 is a matrix which conceptually captures this new dynamic. Mapping time and place against rigidity and flexibility. It is quite possible that with better, faster and cheaper technology, a developing understanding of effective online learning and the supporting pedagogy, the changing needs and nature of the population and overall affordability and access, that more course delivery and support will take place online and not on-campus. Given the existing cost structures of a typical ‘traditional’ university, it would not be surprising
if some, indeed many, do not start to invest more in technology and online support, and less in campuses and place-based academic support with a view to gaining competitive advantage in emerging new markets, both home and abroad.

In addition to this, especially with older and non-traditional learners, who may well not have had a good experience of traditional education, either at school, at college or elsewhere, making learning relevant, enjoyable and fun is also vitally important. The matrix in Table 2 plots work and leisure against obligation and fun, and visually illustrates how effective learning needs to be positioned as a leisure pursuit, even if work-relevant, and part of achieving this is allowing flexible access and support at times that they can more easily fit into busy life-schedules. For too long, learning, especially if related to work, has been seen as a compliance-driven, or needs-obligated activity, done because it has to be. Imagine a scenario where the pedagogic design, quality and flexibility of the offer makes it both satisfying and enjoyable to participate. One can only think that this makes for a very powerful learning environment, where it realistically has a chance of becoming an up-skilling and re-knowledgeing for life. With the challenges that economies and societies face, those that can achieve this are likely to be the sustainable and successful ones.

Table 2

<table>
<thead>
<tr>
<th>Effective</th>
<th>More effective</th>
</tr>
</thead>
<tbody>
<tr>
<td>Leisure</td>
<td>Work</td>
</tr>
<tr>
<td>Obligation</td>
<td>Enjoyment</td>
</tr>
<tr>
<td>Conscript</td>
<td>Volunteer</td>
</tr>
</tbody>
</table>

Focussing on flexibility

Table 1

19th ED:
Conclusion
The time is right to go back to basics and reconsider the role of a university. It could well be that individual universities become defined as much by difference, as similarity, with only a core set of values giving coherence to participation in university level activity. In many ways, as we lead more sophisticated and complicated lives, as the systemic challenges ahead get ever-more more complex, as our life aspirations and expectations evolve and as technology provides new choices, a deeper and more widely educated person should better be equipped to cope with the emergent tensions, challenges and opportunities that ride in the wake of change. In a knowledge-based world, there has to be a critical place for a university, but this has to be earned on merit and not be based upon past performance and reputation. If existing players cannot rise to this challenge, new players will certainly emerge, and quickly.

Innovative universities should not fear the future. They should embrace it and play a leading role in developing and defining it. In a world where sustainability of developed economies is predicated on creating and commercially exploiting knowledge, where the threshold for skills and competencies rises ever higher, where creativity and enterprise are key sources of competitive advantage and where societies and individuals have instant access to vast arrays of information, from which they need to build personal understanding, the opportunity for universities to engage with so many for so long, has never been greater. They can, and should be the thought leaders of future generations, but this can only be achieved by thinking differently, looking ahead and focussing outwards. The question then becomes whether this is what they really want to do?
Sustainability and its Relevance for a Business Curriculum

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Abstract: Sustainability has been defined as a business approach that creates long-term shareholder value by embracing opportunities and managing risks deriving from economic, social and environmental developments. As such, sustainability has become an important issue that should be addressed in business programs where various ideas and approaches could be compared and contrasted. However, how to best incorporate this subject area into a business curriculum, particularly at the baccalaureate level, remains a subject of discussion and debate. Our focus in this paper is to suggest how to incorporate this topic into a typical undergraduate business program. One of the critical decisions in the design of such a curriculum is whether to adopt a ‘weak’ or ‘strong’ approach to sustainability. This paper explains the development of an undergraduate course at Barry University on sustainability based on the ‘strong’ approach. We further present a basic outcomes-based model for designing course objectives and assessing learning outcomes.

Introduction
Historically, the term sustainable arose among those with environmental concerns and most of the literature and assessment instruments reflect this emphasis. However, it is increasingly recognized that sustainability cannot be achieved without also addressing social justice issues and consideration towards the whole community of life as essential parts of true sustainability. As such, sustainability is an evolving paradigm for planning and decision-making which requires a basic understanding of the interconnections of dependency among ecological, economic, and social systems. In addition, the global financial and economic crisis has affected higher education in general, not only in terms of threats to budgets and learning opportunities, but also in terms of the very purposes of education. It has raised questions as to the kind of society and economy we should prepare learners for. Education is being asked to respond to the changing realities around us as well as preparing students for, and contributing to, a different future (Von Der Heidt & Lambeton, 2011).

The generally recognized three pillars of sustainability - ecological preservation, social well-being for all members of society, and economic viability - represent the so-called triple bottom line. To help with the transition to achieving sustainability, businesses will require employees who have knowledge that is focused on sustainability. A key place where these employees can gain this new knowledge is as part of their university education. The question is which type of sustainability knowledge should be offered within a business curriculum, both at the undergraduate and graduate level. At the graduate level there is an increasing proliferation of ‘green’ MBA programs and a broader inclusion of the subject. However, although there has also been growth in the number of sustainability courses and/or programs at the baccalaureate level, it is still not adequately addressed in many curricula. This paucity has led us to investigate how undergraduate business programs could more universally incorporate the topic of sustainability as part of the degree. We discuss one possible approach in the following sections of the paper.

‘Weak’ versus ‘Strong’ Approach
One of the critical decisions and design of the undergraduate business curriculum is whether to adopt a ‘weak’ or ‘strong’ form of sustainability indicated by Kearins and Springett (2003) and Springett (2005). The ‘weak’ form tends to operate within the traditional bounds assumptions of business organizations. It is a convenient compromise between business and environmental groups, which facilitates a slightly greener and more environmentally friendly version of the business as usual response. It can be incorporated into business curricula by using perspectives and tools that reinforce the status quo in the current business world. Narratives of these curricula often focus on the what and how of environmental management strategies such as cleaner production, efficient operations and corporate social responsibility within an eco- modernist framework. However, these narratives fail to address fundamental questions such as how do we wish to live and what is the role of organizations in such living (Gladwin, et al., 1995, p. 874).

It is important to acknowledge here that the weak sustainability approach does have its advocates who put forward important solutions to current problems. For instance, Paul Hawken, in his well-known treatment of the subject in The Ecology of Commerce (New York: Harper Business, 2010) describes his book as both a ‘declaration of sustainability’ and as a discussion of, “a path that restores the natural communities on earth but uses many of the historically effective organizational and market techniques of free enterprise.” His book is replete with rich examples of partnerships, innovations and strategies that would fall within the weak sustainability approach but do not call for the reflective, critical engagement with the conditions of possibility of
the current dominant modes of the production-consumption paradigm embedded within the strong sustainability paradigm. Hawken would advocate and encourage the development of restorative economies that seek a balance between the needs of business and the needs of the environment. One noteworthy example at Kalundborg, Denmark describes a series of strategies all clearly patterned in the weak sustainability paradigm and yet nevertheless admirable for their environmental implications. Here a coal-fired power plant, an oil refinery, a pharmaceutical company, a sheetrock plant, concrete producers and producers of sulfuric acid, a fish farm, greenhouses, and local farms along with a number of other enterprises were able to so interlock their inputs and outputs that they have created among themselves an artificial ecosystem; Hawken terms this example a case of industrial ecology. Further – and this is important for distinguishing this example as one that belongs more in the weak sustainability paradigm – these industries coordinated their activities in such a tight network of integrated exchange spontaneously, without regulations or laws as motivating factors (see chapter 4). Clearly, examples such as Kalundborg give clear illustrations of the great and salutary effects possible through the weak sustainability approach.

The ‘stronger’ form of sustainability, on the other hand, is very powerful as it has the potential to lead to vast changes in the way in which business is carried out. It challenges the norms and assumptions for traditional business organizations, including the rationality of the capitalist paradigm of product and consumption and focuses on the ethics and politics of sustainability. The goal is to help students hold a ‘mirror to the world’ to introduce them to a discourse where problematic and opposing views are incorporated into discourses of sustainability and sustainable development and empower them through a clear sense of urgency.

In order to incorporate this stronger form of sustainability into the business curricula, critical skills must be employed in order to challenge current assumptions about business organizations. The starting point for a critical theorization of education for sustainability is the ideological conception that unsustainability arises from social, economic and political systems of the dominant social paradigm and from worldviews in support for that paradigm (Springett, 2005).

One example of an environmental thinker who would represent a strong sustainability paradigm is Michael Maniates. In his 2002 publication, Confronting Consumption, Maniates argues powerfully concerning the failure of the ‘weak sustainability’ approach in his careful examination of, among other issues, the recycling paradigm and how this approach to sustainability has served for decades as a false sustainability choice in the United States, embraced by government, industry, consumers and environmental organizations alike. For Maniates, the strong sustainability approach fully understands that the environmental critique of modes of production and consumption will also address the political implications embedded within such phenomena, will involve a necessary critique of the authoritative structures through which they operate and are effective.

It is this ‘stronger’ form of sustainability which has a more theoretical and holistic basis that we posit has relevance for a business curriculum and consistent with the role of higher education institutions. The goal of this approach is to help learners to understand that ‘sustainability’ is not only a discourse about ecology and economics, but also ideological and political (O’Connor, 1998). Students are encouraged to think critically about the business goals that underpin the capitalist conditions of production that they are being educated to maintain, which may be something they have taken for granted as ‘serving society’ by producing goods and services that people ‘need’ (Alvesson, 1991). As such, it becomes clear that education for sustainability is strongly normative, values–based and ‘political’ which may initially clash with the supposedly ‘neutral’, ‘values–free’ traditional narrative of management education (Willmott, 1984; Alvesson & Willmott, 1996).

Traditional management theory has been conceived as playing a role in creating and supporting the institutions and systems that render business values, attitudes and practices largely inimical to sustainability, whereas students of sustainability need to be helped to critique the narrative of modernism and to consider its alternatives (Huckle, 1996). Education for sustainability may perhaps be seen, then, as representing a threat to the orthodox paradigm of business and business theory which helps to explain the focus on ‘environment’ that characterized early initiatives, such as the introduction of environmental strategy courses into business curricula. At the same time, the exposure of ideology that education for sustainability may provide constitutes what Maher (1985) termed ‘dangerous knowledge’, and introducing this approach of education for sustainability into the formal business curriculum has not proved an easy task. However, in order to facilitate acceptance of this approach within one’s academic community, a suggested starting point may be to tie the course to some aspect of the institution’s mission such as the goal of social justice at Barry University.

However, it is important to recognize that some programs and courses have a weakness in that there is a lack of a clear link between the development of learning outcomes and their assessment (Patterson, 2009). Without making the link transparent and the outcomes assessable, the achievement of the outcomes cannot be verified, since little data may be reliably collected. As such, sustainability courses should be designed with a view to improving learning outcomes. In the next section we discuss the development of such a course.
Developing Curricula

There are myriad strategies used currently in the United States to incorporate sustainability concepts into undergraduate curricula, however many business programs do indeed avoid the issue altogether by deferring the offering of courses with this bent to graduate study. This may perhaps be due to a perceived difficulty in “teaching sustainability” within an already crowded, established undergraduate curriculum where there are many competing ideas to which academic programs may give priority. The interdisciplinary nature of sustainability as a curriculum piece lends itself to many creative applications in the classroom, including courses contained within traditional undergraduate courses of study. So, what methods may be employed, with regard to both course content and assessment of learning outcomes, to effectively incorporate sustainability into an undergraduate business curriculum? Here, we will present an outcomes-based method.

It is useful to think of educational courses, programs, and experiences not as static constructs, but as evolving entities, whose creation and lifespan may be described as being part of a dynamic four-step cycle:

1) Developing clearly articulated written statements of expected learning outcomes; 2) Designing learning experiences that provide explicit opportunities for students to achieve those learning outcomes; 3) Implementing appropriate measures of student achievement of key learning outcomes; 4) Using the results of those assessments to improve teaching and learning (closing the assessment loop).

The first step is to establish clear program goals and the outcomes which any new or re-designed curricula will seek to achieve. The very practical question, “What should our students be able to do out there?” serves to set parameters and give direction to the development endeavor. Since this process is OUTCOMES driven, a basic strategy for gathering important information from real world sources (i.e. potential employers, alumni, and faculty) is key, and frequently this may be accomplished through establishment of a task force/committee/individual which interviews and gathers input from professionals in the field. This insures that the outcomes decided upon consider the major metric: to teach “things the student needs out there,” for which we as educators are responsible. It is important that these outcomes be robust AND assessable.

The next major question for many programs may be, “What can students DO as a result of completing this program?” From this basic question, we may direct the development of new curricula through introduction/modification of courses designed according to the program goals codified in answer to the aforementioned query. Other important course parameters may be explored and established at this point as well (accelerated formats, alternative delivery modalities, etcetera), as they may affect decisions related to course structure and content. See the following Figure 1 as an example of how existing program and course outcomes may be modified in order to make them more robust and assessable.

Figure 1 Developing more robust program and course outcomes

<table>
<thead>
<tr>
<th>Program Outcomes</th>
<th>recognize and discuss ethical considerations involved in sustainable business practices</th>
<th>Apply knowledge of business organization, systems, concepts, and methodologies to efficiently and ethically support sustainable business practices</th>
</tr>
</thead>
<tbody>
<tr>
<td>Course Outcomes</td>
<td>Explain the various forms of sustainable business practices and their common applications</td>
<td>Draft a comprehensive interest analysis for a party detailing a desired business reorganization in order to adopt sustainable business practices</td>
</tr>
</tbody>
</table>

Another valuable tool for developing is the use of a course outcomes guide, where the following are considered in respective order: 1) Intended Course Outcomes – What must the student successfully demonstrate as a result of taking this course?; 2) Relation to Program Outcomes - With which program outcome(s) is this course aligned?; 3) Assessment Strategy – What will the student do to provide evidence of this intended outcome?; 4) Core concepts, knowledge, and skills – What core concepts, issues, and skills must the student acquire to demonstrate proficiency in program and course outcomes? Naturally, these questions may be applied to existing courses to determine if they are satisfactorily aligned with the program goals such that they may be maintained
in the new curriculum, and with new courses to assure proper alignment and sequencing. The aij is to use a common standard for all courses in the curriculum so as to create a solid consistency of course to program outcomes alignment and coherent course sequencing.

Additionally, in order to formulate appropriate course outcomes once the program outcomes have been codified and to ensure a smooth sequence, it may be useful to employ tools such as academic rigor charts in which each course-level’s prerequisites, course goals, cognitive foci (of activities and assignments), and examples of assessment tasks are clearly listed so that coherent course-sequencing is in place from the outset of the curriculum design process (smooth flow from 100-level, 200-level, etc.) and all courses are assessed according to the proper academic standard (see Figure 2).

Figure 2. Academic Rigor chart

<table>
<thead>
<tr>
<th>Prerequisites</th>
<th>100-level</th>
<th>200-level</th>
<th>300-level</th>
<th>400-level</th>
</tr>
</thead>
</table>
| May be required    | - Introduction to the discipline’s particular fields and sub-fields  
- Increasingly complex concepts, techniques, and approaches  
- Elaborate on arguments and read scholarly sources  
- Specialization in discipline’s fields and/or subfields  
- Use complex concepts, techniques and approaches |
| Usually required, either as specific course or number of credits in specific discipline. If not, course description should address level with appropriate language. |
| - In-depth specialization in discipline’s fields and sub-fields  
- Synthesize experiential knowledge with the ability to select, apply, argue, evaluate, defend, and criticize theory  
- Present, and defend significant and original research that involves some use of primary sources  
- Evaluate the validity of complex issues, approaches, and theoretical perspectives. |

| Course Goals       | Emphasis on knowledge, comprehension, and application: reflecting on experiential knowledge; identifying terms and concepts; using methods, concepts, and principles in a college context.  
- Classroom presentations  
- Writing assignments combining reflections on experiential  
- Poster sessions and oral presentations in classroom or more public venue  
- Critical analysis of complex aspects |
| Emphasis on application and analysis: applying experiential knowledge to methods, concepts, principles, and theories in new situations; breaking information down into its constituent elements  
- Classroom presentations  
- Writing assignments using scholarly sources obtained from the library  
- Writing original, creative assignments and demonstrating |
| Emphasis on analysis and synthesis: breaking information down into its constituent elements; combining experiential knowledge with knowledge of the field and theory in order to create original projects and arguments. |
| Emphasis on synthesis and evaluation: combining original concepts and ideas with primary sources in order to create a project that includes creative thinking and that contributes to social justice or intellectual discourse. |

| Focus of Activities and Assignments (Cognitive Focus) | Emphasis on knowledge, comprehension, and application: reflecting on experiential knowledge; identifying terms and concepts; using methods, concepts, and principles in a college context.  
- Classroom presentations  
- Writing assignments combining reflections on experiential  
- Poster sessions and oral presentations in classroom or more public venue  
- Critical analysis of complex aspects |
| Examples of Assessment Tasks | Emphasis on application and analysis: applying experiential knowledge to methods, concepts, principles, and theories in new situations; breaking information down into its constituent elements  
- Classroom presentations  
- Writing assignments using scholarly sources obtained from the library  
- Writing original, creative assignments and demonstrating |
| Emphasis on analysis and synthesis: breaking information down into its constituent elements; combining experiential knowledge with knowledge of the field and theory in order to create original projects and arguments. |
| Emphasis on synthesis and evaluation: combining original concepts and ideas with primary sources in order to create a project that includes creative thinking and that contributes to social justice or intellectual discourse. |
With regard to assessment, an authentic assessment strategy is suggested, particularly as applied to sustainability within a business curriculum. Authentic assessment is a form of assessment in which students are asked to perform real-world tasks that demonstrate meaningful application of essential knowledge and skills. Or, as Grant Wiggins (1993) describes it, authentic measures are “engaging and worthy problems or questions of importance, in which students must use knowledge to fashion performances effectively and creatively. The tasks are either replicas of or analogous to the kinds of problems faced by adult citizens and consumers or professionals in the field.” Authentic tasks can range from analyzing a political cartoon to making observations of the natural world to computing the amount of paint needed to cover a particular room to performing in a chorale. Traditional forms of assessment, such as multiple choice or essay exams in a timed environment, primarily measure verbal and written expressions of learning, whereas authentic assessments measure a performance as well as linguistic forms of learning. (Mueller, 2005) The two are not mutually exclusive. One can imagine a final project that assesses a student’s understanding of a negotiation between a business manager and state/federal environmental regulators (for example), combining a performance-based presentation as well as a written summary of the material underlying the principal proposals covered in the negotiations.

One concrete example of how a curriculum may be “re-invented” with innovative ideas specific to most any institution’s program goals/mission statement(s) (which could include sustainability incorporated into an undergraduate business curriculum) has been employed at Barry University’s School of Adult and Continuing Education. This approach incorporates Stiehl’s innovative theory of outcomes-based curriculum design within the Dominican tradition of “Contemplare et contemplate aliis tradere” and specifically directs it toward adult learners. Instead of designing a course around content and the “canon” of a particular discipline, the Stiehl model focuses on the assessment of Student Learning Outcomes (SLO’s), i.e., what students need to be able to do beyond the classroom, in the real world, as a result of taking a course or completing a program. The Dominican tradition notwithstanding, this idea is easily applied to most types of institutions of higher learning and a wide range of institutional mission statement philosophies. The key is program to course alignment of outcomes and coherent assessment strategy, which allows for program and course modification and improvement after a review of assessment data.

Below is a sample course outcomes, assignments, and assessment tool chart for a proposed Philosophy course at Barry University’s School of Adult and Continuing Education (see Figure 3). The course outcomes are established according to the program goals of the School, which align with the university’s Dominican-based mission. Within a business curriculum, this course would align with many program outcomes related to sustainability, and could serve as a General Education course or elective. Note that the number of outcomes is limited to 3 here. Different courses may contain more outcomes as determined by individual institutions, but it must be remembered that with additional outcomes comes additional assessment challenges as the number of variables increase when more outcomes are introduced and must be accurately assessed. Reliable data collection (assessment) is key to modifying courses and pedagogy so all desired outcomes are effectively met.

Figure 3. Upper Division 300-level Philosophy course: The Environment, Consumption and Sustainability

<table>
<thead>
<tr>
<th>Course Outcome</th>
<th>Assignments addressing outcome</th>
<th>Weight, Assessment Tool</th>
</tr>
</thead>
<tbody>
<tr>
<td>The student will:</td>
<td>- Collaborative learning/group projects</td>
<td>- Collaborative learning/group projects</td>
</tr>
<tr>
<td>- Collaborative learning/group projects with specific directive guidelines</td>
<td>- Collaborative learning/group projects with independently developed goals and guidelines</td>
<td>- Collaborative learning/group projects with directive guidelines</td>
</tr>
<tr>
<td>- Service learning projects</td>
<td>- Presentations defending a project - f2f or online</td>
<td>- Authentic Assessment or essay exams</td>
</tr>
<tr>
<td>- Interviews with experts in field</td>
<td>- Examinations, at least 50% essay;</td>
<td>- Essay examinations</td>
</tr>
<tr>
<td>- Examinations at least 50% essay;</td>
<td>- Authentic Assessment projects</td>
<td>- Examinations</td>
</tr>
</tbody>
</table>

(Adapted from University of Maryland/University College, School of Undergraduate Studies Academic Rigor Chart, September, 2009).
| Demonstrate critical thinking skills regarding contemporary ethical-political issues relating to the environment, resource sustainability and consumption. | Class Participation/Discussion | 20% , Scored by rubric |
| Analyze representative philosophical theories on the environment and their relevance to issues of resource use, consumption, and sustainability including, but not limited to: anthropocentrism, eco-centrism, individualism, eco-feminism. | Research Essay (Embedded assessment assignment) | 30%, Rubric (embedded in syllabus) |
| Evaluate arguments establishing positions on particular environmental issues, analyze logically complex, real-world problems and integrate social, biological, and physical science knowledge in natural resources/environmental problem solving. | Class Participation | (weight above) , Rubric |
| Research Essay (Embedded assessment assignment) | Exams (weights listed above) |

In this course, a single assignment, in this case a research essay, is used to assess the course outcomes, which are aligned with the Goals for all Philosophy courses at Barry University's School of Adult and Continuing Education. The mandate specifies that this embedded assessment assignment, so called because the assessment rubric is actually "embedded" in the syllabus so the criteria are clear to all students. This course assignment must meet the minimum expectation of fulfilling 4 out of 5 of Barry University’s Program Learning Goals for all Philosophy courses, as a matter of policy, as follows:

1) To understand the historical roots and development of basic contemporary issues;
2) To understand the objective nature of morality;
3) To understand that reasoning can be logically valid or invalid;
4) To understand the value of a philosophy of life (i.e., a reasonable and comprehensive world view);
5) To develop students’ ability to use philosophical concepts appropriately and accurately in written and oral communication.

The course-specific embedded assessment assignment, as may be seen in the following assessment rubric, contains criteria which in turn address the course goals, which are aligned with the program goals, thereby creating a coherent alignment of goals and outcomes from top to bottom (see Figure 4). For this assignment, the student’s work is assessed on a scale of 1-5, with a score of 3 representing the minimum acceptable score which would demonstrate that outcomes have been realized. The data gathered from the embedded assessment assignment is analyzed, and this allows for modification of the course assignments/content as a response to any outcomes reports that reflect room for improvement in any area.

Figure 4. *Embedded Assessment Rubric for Research Paper*

<table>
<thead>
<tr>
<th>Trait/Criterion</th>
<th>5</th>
<th>4</th>
<th>3</th>
<th>2</th>
<th>1</th>
<th>Score (1-5)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Historical roots and development of basic contemporary issues</td>
<td>To demonstrate clearly an understanding of how different ethical theories in their classical and contemporary expressions have shaped our understanding of current moral problems, including sexual morality, abortion,</td>
<td>To demonstrate some understanding of how different ethical theories in their classical and contemporary expressions have shaped our understanding of current moral problems,</td>
<td>To fail to understand or appreciate how philosophical investigations about the nature of morality have shaped our understanding of current moral problems,</td>
<td>Score</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

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<table>
<thead>
<tr>
<th>Objective</th>
<th>Nature of Morality</th>
<th>To identify the key features that every moral theory should accept.</th>
<th>To identify some of the key features that every moral theory should accept.</th>
<th>To fail to identify any of the key features that every moral theory should accept.</th>
<th>Score</th>
</tr>
</thead>
<tbody>
<tr>
<td>Critical Thinking and Logic</td>
<td>To demonstrate the capability to employ arguments that are well-constructed, well-focused, and that all fit together to create a cohesive philosophical discussion.</td>
<td>To show the ability to at least distinguish valid arguments from invalid ones.</td>
<td>To fail either to construct or to identify any valid arguments at all.</td>
<td>Score</td>
<td></td>
</tr>
<tr>
<td>Understanding the Value of Having a Reasonable and Comprehensive Worldview</td>
<td>To develop a satisfactory ethical model that helps shed light upon contemporary moral problems, as well as other ethical dilemmas.</td>
<td>To begin to develop and formulate reflective positions on some of the more pressing moral problems in contemporary society.</td>
<td>To fail to articulate a philosophical position on any of the more pressing moral problems in contemporary society.</td>
<td>Score</td>
<td></td>
</tr>
<tr>
<td>Competency in Use of Philosophical Terminology for Written Communication</td>
<td>To demonstrate excellent writing style, characterized by a variety of sentence structures and the use of proper English grammar; to employ applicable philosophical terms precisely and in their proper context and to spell them correctly.</td>
<td>To demonstrate adequate writing style characterized by correct sentence structure, with minimal errors in English grammar; to incorporate some philosophical terms, spell them correctly, and use them in their proper contexts.</td>
<td>To demonstrate improper sentence structure, with significant errors in English grammar; to avoid use of philosophical terms, to misspell them, or to use them in the wrong context.</td>
<td>Score</td>
<td></td>
</tr>
</tbody>
</table>

Total Score = ___ / RUBRIC SCORE (total score/# of criteria) = _____

So, to summarize the procedure for creating other courses using this procedure, the below sequence is a general breakdown of the development of the aforementioned Barry University-specific course related to sustainability: 1) Identify your standards for your students; 2) For a particular standard or set of standards, develop a task your students could perform that would indicate that they have met these standards; 3) Identify the characteristics of good performance on that task, the criteria, that, if present in your students’ work, will indicate that they have performed well on the task, i.e., they have met the standards; 4) For each criterion, identify two or more levels of performance along which students can perform which will sufficiently discriminate among student performance for that criterion. The combination of the criteria and the levels of performance for each criterion will be your rubric for that task (assessment). (Mueller, 2005). This outcomes-based process can guide the development of goals, courses, and assessment plans for any curriculum wishing to incorporate sustainability into their undergraduate business or any other curriculum, as it serves for most any discipline. The Philosophy course presented here is an example of how these concepts may be included in most undergraduate courses of study.

References


Are business teachers a different breed when it comes to ICT training?

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Abstract: Due to the larger class sizes in business education, a common assumption amongst business teachers is that using a student-centred approach is more difficult. However, an important development in business education is the increased learning possibilities brought by ICT that suggest a more individualised learning experience for students is possible. Nonetheless, many business teachers seem reluctant to embrace technology in the classroom. An online teacher training program in a cross-institutional partnership was followed by 16 business teachers from three institutes, who were contrasted by 49 teachers from other disciplines. Data were gathered using the TPACK model and the Teacher Beliefs and Intentions questionnaire using a pre-post test design. The results indicate that business teachers are more persistent in their beliefs and intentions towards knowledge transmission, while teachers from other disciplines became more student-centred after completing a training program. Given that this intensive innovative training program seemed to have limited impact, this implies that business schools may need to reconsider their professionalization activities for academic staff.

Introduction

A common argument raised by business teachers is that teaching using an innovative, student-centred approach is more difficult in business education (Gijselaers, 1995; Mintzberg, 2004; Rienties & Townsend, 2012). This argument is based on different challenges that confront business scholars in comparison to their academic peers in other disciplines. The most frequently cited is that given the popularity of business, management and economics programs across the world (Mintzberg, 2004; Van den Bosch, 2008; Wilkins & Huisman, 2012), most business teachers teach in large classrooms, ranging from 50 to even a thousand students (Gallego & Casanueva, 2009). At the same time, research has shown that in business school there is a stronger diversity of students present in terms of cognition and mathematical skill (Tempelaar, 2006), learning styles (Nijhuis, Segers, & Gijselaers, 2008), motivation (Tempelaar, Niculescu, Rienties, Giesbers, & Gijselaers, 2012) and cultural backgrounds (De Vita, 2001; Rienties, Luchoomun, & Tempelaar, 2012; Tempelaar, Rienties, Giesbers, & Schim van der Loeff, 2012), which renders using a student-centred approach an even greater challenge. As a result, many business teachers argue that teaching business students is more complex than teaching students who have specifically chosen a discipline because of a specific drive or passion (e.g. medicine, dance), or those who teach in a specialised topic only followed by a limited number of students.

A final point that may further complicate the teaching role for business teachers is that most graduates from business education will work in a range of jobs in the professional sector. In addition to acquiring new theoretical business models, business students expect to obtain a range of generic business management skills (Treleaven & Voola, 2008). Although research has indicated that many business students struggle to apply these generic business skills (Arts, Gijselaers, & Boshuizen, 2006), and many business schools are criticised for not delivering employable graduates (Gerken, Rienties, Giesbers, & Könings, 2012; Van den Bosch, 2008), business teachers have to attempt a difficult balance between providing (softer) employable skills and profound theoretical (harder) discipline-specific knowledge (e.g. accounting, finance, mathematics, statistics).

So how can business teachers provide business students with a learning environment that helps them to strengthen soft skills, while at the same time provide them with a rigorous body of knowledge and expertise? Several researchers (De Vita, 2001; Norton, Richardson, Hartley, Newstead, & Mayes, 2005; Rienties & Townsend, 2012; Van den Bosch, 2008; Van den Bosche, Segers, Gijbels, & Dochy, 2004) argue that a possible answer may be to provide a more student-centred approach to learning and teaching. Business teachers who have a more student-centred approach to teaching are more likely to achieve conceptual change amongst students, while teachers who have a more teacher-centred approach to teaching are more likely to aim at the transmission of information and knowledge to students (Norton, et al., 2005; Postareff, Lindblom-Ylänne, & Nevgi, 2007; Van den Bosche, et al., 2004).

Previous research has found that teachers adopting a more student-centred approach to teaching are more likely to stimulate business students to adopt a deep- rather than a surface-approach to their learning (Nijhuis, et al., 2008). Furthermore, even in large classrooms of a thousand business students, recent research has shown that business teachers can implement a student-centred approach when supported by ICT. For
example, Tempelaar and colleagues (2006; 2012; 2012) have shown that by using an adaptive software programme called ALEKS, students are given an individualised learning experience in business statistics that supported learning more appropriately aligned with their level of capability. In addition, Belei et al. (2009) showed how Second Life could be used with over 250 business students working in small teams. They were able to effectively learn how to implement and manage a new brand through online working facilitated by teachers.

Given the power of student-centred learning and ICT in particular for business education, several researchers (Rienties, Brouwer, Lygo-Baker, & Townsend, 2011; Rienties et al., 2011; Rieties & Townsend, 2012) have suggested that business schools should provide adequate professional development, training and staff support for teachers in order to increase awareness of the complex interplay between technology, pedagogy and cognitive content related to, and supporting their discipline. However, research has shown that providing effective training and practice opportunities for teachers, so that they learn how to effectively redesign learning opportunities (Ebert-May et al., 2011; McCarney, 2004; Stes, Min-Leliveld, Gijbels, & Van Petegem, 2010), in particular through the incorporation of ICT (Alvarez, Guasch, & Espasa, 2009; Lawless & Pellegrino, 2007; Ziegenfuss & Lawler, 2008), is not straightforward.

While a large number of studies have argued that formal training can enhance teachers’ understanding of their practice (Postareff, et al., 2007; Prosser, Ramsden, Trigwell, & Martin, 2003), no significant relationships were found with formal training in the study by Norton et al. (2005), which backs up previous research by Gibbs and Coffey (2004). Therefore, in line with previous research, Norton et al. (2005) argue that genuine development of teachers’ approaches to teaching comes from addressing their underlying conceptions of teaching and learning (Norton, et al., 2005; Prosser & Trigwell, 1999; Trigwell & Prosser, 2004). The sparse research that is available relating to the effectiveness of teacher professionalization programs is mostly conducted at a university-wide level. To the best of our knowledge no specific research been conducted that relates specifically to how business teachers can be effectively trained to develop learning online. Furthermore, no research is available that compares and contrasts the training effects of business teachers to other academics following the same program. Therefore, in this paper we will first investigate whether business teacher differ from other academics in terms of beliefs and intentions towards student-centred and teacher-centred approaches in their classrooms. Afterwards, we will investigate the effects of the training that was aimed to effectively integrate ICT in business education and compare them with the results in other disciplines.

Method

Setting

73 teachers from seven higher educational institutes in the Netherlands participated in an online professional development program that aimed to support the integration of ICT for teaching and learning. The modules were designed to support the teaching practice of participating teachers from the perspective of teaching design as a whole, rather than to train lecturers how to use technology X, Y or Z (Lawless & Pellegrino, 2007; McCarney, 2004). The goal set for each teacher taking part in the MARCHET program was to implement a redesign of a teaching module in their own teaching practice within six months of the training being completed. In order to guarantee anonymity of participants, we removed any reference to identify the respective institute a participant was working in.

Teachers met online in classrooms using web-videoconferencing and each participant was expected to attend four one-hour online videoconferences, once every two-three weeks. In between the online meetings, teachers were expected to work on a range of assignments and to discuss their experiences in asynchronous discussion forums. In this way, business teachers were able to work together with other teachers (some of whom were from a different discipline) and learn from each others’ experiences, but at a time and place that was chosen by them, which aimed to allow for greater flexibility. The training took eight to twelve weeks to complete with a total time investment of 20-25 hours and could be followed independently from the other modules in this program. More specific details about the modules and design principles can be found elsewhere (Rienties, Brouwer, et al., 2011) or at www.MARCHET.nl.

Participants

Of the 73 initial participants, 16 (8 male, 8 female) participants indicated that they primarily taught in business, economics, or management. In order to exactly balance the participants from other disciplines with those from business education in terms of gender and age, we removed eight older males from the other discipline’s sample. The average age of the 65 participants was 40.41 (SD = 8.44) and 50% of the teachers were male. In order of frequency, teachers from the other disciplines were from science (13), arts and social sciences (9), health (7), mathematics (5), and law (3). Twelve other teachers taught across a range of disciplines. Of the sixteen business teachers eight worked at one research-intensive business school, while the remainder were split across one of three teaching-intensive business schools. The 49 academics from other disciplines primarily...
worked in research-intensive institutes. Participants who successfully passed the module were given a certificate, which could be used as evidence of their professional development.

**Instruments**

**Measurement 1 Pre- and post-test Teachers’ beliefs and intentions towards learning**
In order to measure the initial beliefs and attitudes of (business) teachers towards student-centred and teacher-centred learning, the Teacher Beliefs and Intentions (TBI) instrument of Norton et al. (2005) was used. Based upon an adjusted version of Gow and Kember’s (1993) approaches to teaching inventory, Norton et al. (2005) validated the TBI instrument amongst 556 respondents from four UK universities across three broad academic disciplines (arts, science and social science). In the questionnaire, a distinction is made between learning facilitation and knowledge transmission and aims to explore a teacher’s beliefs and their intentions, examining the level of alignment. Within learning facilitation, five factors are identified, namely: problem solving, interactive education, supportive education, pastoral care, and motivating students. For knowledge transmission three factors are identified, namely: professional development for jobs, imparting information, and knowledge of subject. The final version of the instrument devised by Norton et al. (2006) consists of 32 questions. For this research, two questions on the use of media were replaced by more specific questions from the TPACK questionnaire (See below).

**Measurement 2 Pre- and post-test TPACK**
Mishra and Koehler (2006) designed the technological pedagogical content knowledge (TPACK) model with the aim of establishing how successful learning using ICT had been. The authors showed that learning was most effective when teachers have appropriate awareness of the complex interplay between pedagogy, technology and discipline specific knowledge. The TPACK questionnaire aims to measure whether teachers are able to effectively implement and integrate ICT into their teaching (Rienties et al., Submitted). The questionnaire focuses on the five key elements in the MARCHET program described above, namely: prior expertise with ICT; expertise in teaching in collaborative learning settings; pedagogical content knowledge (PCK); technological pedagogical knowledge (TPK); and technological content knowledge (TCK). Finally, by aggregating the five categories, an integrated TPACK score is derived. Cronbach alphas ranged between .64 and .81.

**Data analysis**
60 (92%) participants filled in the pre-test TBI and TPACK. Of the 32 (49%) participants who successfully completed the module, 27 participants filled in the post-test questionnaire, while only five out of 33 participants who dropped out completed the post-test questionnaire, despite two individualised email reminders and telephone calls. All eight participants from the research-intensive business school passed the online training module, while none of the participants from the three teaching-intensive business schools passed.

**Results**

**Initial teacher beliefs and intentions towards student-centred learning**
The results of the pre-test TBI showed that business teachers have strong beliefs towards knowledge transmission in particular towards training for jobs. In comparison with teachers in other disciplines significant differences were found in beliefs towards knowledge transmission. Also the intentions of business teacher towards knowledge transmission were (on average) higher than their peers from other disciplines, though this was not significant at a 5% level.

Follow-up separate t-tests analyses of the 18 scales indicate significant differences amongst business teachers versus teachers from other disciplines in beliefs towards stronger training for jobs (T = 2.137, p < 0.05), as well as marginally significant differences in terms of beliefs towards lower pastoral care (T = -1.795, p < 0.10), and intentions towards stronger knowledge transmission (T = 1.635, p < 0.10). In sum, the results indicate that business teachers’ initial beliefs and intentions were more geared towards knowledge transmission of their expertise, while teachers from other disciplines were relatively more focussed towards a teaching approach that encouraged student-centred learning.

**Effects of training on Teacher beliefs and intentions**
When comparing initial TBI scores with those gathered after 12 weeks for 34 respondents who completed both pre- and post-test, significant differences were found with respect to lower intentions towards knowledge transmission (T = -3.027, p < 0.05). The results indicate that participants were less convinced about a teaching style focussed primarily on knowledge transmission and intended to design modules less focussed on teacher-centred learning. However, participants did not become more student-centred. Follow-up separate t-tests
analyses of the 18 scales found significant differences in beliefs towards less imparting of knowledge ($T = -2.582$, $p < 0.05$), as well as in intentions towards more motivation of students ($T = 2.196$, $p < 0.05$), and marginally lower intentions towards problem-solving ($T = -1.875$, $p < 0.10$). In sum, we conclude that teachers did not become more student-centred as a result of the training, although teachers beliefs towards knowledge transmission has declined significantly, which is an indication of a move away from teacher-centred learning.

Figure 1 Pre- and post-test of ratio learning facilitation/knowledge transmission

Note: As this Figure uses ratio of learning facilitation divided by knowledge transmission, a score close to one indicates that teachers balance learning facilitation and knowledge transmission to a similar level. If the score is above 1, teachers focus relatively more on learning facilitation, while a score below 1 indicates that teachers focus relatively more on knowledge transmission.

First of all, the standard deviations for all values were higher than the mean scores, indicating that some participants became stronger in their beliefs and intentions, while other participants were less convinced about a student-centred or teacher-centred approach. This seems to indicate that the effects of training are not linear, but follow a more volatile, dynamic non-linear pattern. Second, although business teachers had stronger initial beliefs towards knowledge transmission, after the training it was primarily the teachers from other disciplines that were less convinced about their beliefs and intentions towards knowledge transmission. In fact, while teachers from other disciplines reduced their intentions towards knowledge transmission, the business teachers were (even) more convinced about their intentions towards knowledge transmission. Figure 1 provides a visual illustration of this pattern, whereby we illustrate learning facilitation as a ratio of knowledge transmission. While teachers from other disciplines over time developed relatively stronger beliefs and intentions towards learning facilitation and student-centred learning, business teachers’ beliefs remained stable, or even became more focussed on knowledge transmission.

**Effects of training in terms of Technology, Pedagogy and Content Knowledge**

At the start of the training, taking a cut-off value of 3.0 for the TPACK instrument, 59% of the business participants and 75% of the other discipline participants indicated that they did not actively use ICT in their current teaching practice. All TPACK scores for business teachers were higher than those for academics from other disciplines, although only expertise with teaching in collaborative learning was significant at a 5% confidence interval. The results indicate that on average business teachers had stronger (perceived) technological skills and collaborative learning experience than peers in other disciplines, although their overall TPACK score was not significantly higher.

**Table 1 Change of TPACK from pre- to post testing**

<table>
<thead>
<tr>
<th></th>
<th>Other disciplines</th>
<th>Business</th>
<th>T-test</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>M</td>
<td>SD</td>
<td>M</td>
</tr>
<tr>
<td>Δ Prior expertise with ICT</td>
<td>0.17</td>
<td>0.62</td>
<td>0.32</td>
</tr>
<tr>
<td>Δ Expertise in teaching in collaborative learning</td>
<td>0.11</td>
<td>0.70</td>
<td>-0.57</td>
</tr>
<tr>
<td>Δ Pedagogical and content knowledge</td>
<td>0.07</td>
<td>1.00</td>
<td>0.14</td>
</tr>
<tr>
<td>Δ Technological pedagogical knowledge</td>
<td>0.26</td>
<td>0.80</td>
<td>-0.05</td>
</tr>
<tr>
<td>Δ Technological content knowledge</td>
<td>0.22</td>
<td>0.52</td>
<td>-0.10</td>
</tr>
<tr>
<td>Δ TPACK</td>
<td>0.47</td>
<td>0.79</td>
<td>0.81</td>
</tr>
</tbody>
</table>

*Independent sample T-test (2-sided) (n other disciplines = 27, n business = 7). *Coefficient is significant at the 0.05 level.
After participants completed the training program, participants in general were more positive about their ICT skills \((T = 1.965, p < 0.10)\) and overall TPACK skills \((T = 3.977, p < 0.05)\) in comparison to their initial response. In Table 1, the changed TPACK scores of business education and other disciplines are illustrated. Similar to our findings reported above, the standard deviations are in general larger than the mean scores, indicating that some participants were significantly more positive about their (perceived) TPACK skills, while others indicated that they were less convinced about their TPACK skills. Business teachers who completed both the pre- and post-test were significantly less positive about their expertise in collaborative learning in comparison to teachers from other disciplines. Furthermore, business teachers were more negative about their technological pedagogical knowledge and technological content knowledge towards the end of the training. Nonetheless, both business teachers and teachers from other disciplines were more positive about their overall TPACK skills.

**Discussion and conclusion**

A common argument raised by business teachers is that teaching using a student-centred approach is more difficult in business education, due to larger classroom sizes, greater diversity in student populations in terms of cultural backgrounds, motivation and learning styles, and the inherent tension of teaching discipline-specific knowledge as well as providing employable graduate skills. This paper is, in our opinion and to the best of our knowledge, the first to address whether business teachers have different beliefs and intentions towards student-centred learning and teaching in comparison to academics from other disciplines. Furthermore, by comparing how business teachers’ beliefs and intentions and TPACK skills have (not) changed over time due to an online professionalization program, we provide a unique insight into how attitudes towards student-centred learning of business teachers can be engaged.

Given the possibilities offered through ICT to provide a rich learning experience to business students, business teachers need to be able to update their skills and expertise in a safe, powerful and cost-effective manner (Alvarez, et al., 2009; Smith, 2003). Although researchers (Lawless & Pellegrino, 2007; Löfström & Nevgi, 2008) have suggested that higher education institutions should provide adequate professional development and support for teachers to acquire ICT and pedagogical skills, most studies outside the business education domain that report on ICT training have focussed on measuring learning satisfaction of such training programs, rather than addressing whether teachers have actually changed their beliefs and intentions towards student-centred learning and the use and integration of technology into practice (Lawless & Pellegrino, 2007; Stes, et al., 2010). With respect to the first research question of whether business teachers differed from their peers in other disciplines in terms of their approaches to teaching and learning, we found that business teachers had significantly stronger beliefs (and intentions) towards knowledge transmission, in particular to training for jobs. These findings highlight the delicate balance that business teachers have to make in their daily practice. On the one hand, they have to ensure that business graduates are able to develop sufficient generic business skills, such as critical thinking (Treleaven & Voola, 2008), self-determination and independent learning (Tempelaar, Rienties, et al., 2012), communication skills (Gerken, et al., 2012), leadership skills, empathy and charisma (Mintzberg, 2004). On the other hand, business teachers are pressed by external bodies, such as Quality Assurance Associations, as well as internal structures within the institute (Kinchin, Lygo-Baker, & Hay, 2008) to focus primarily on providing sufficient breadth and depth of content into their specific discipline.

An interesting finding that needs more explanation is the result that suggests business teachers are less concerned about providing pastoral care in comparison to their peers in other disciplines. Although we did not measure empathy and care of teachers directly, it may be hard to find intuitive reasons why business teachers should have less inert empathy and interest over their students than peers from other disciplines. Perhaps the fact that business teachers are commonly teaching in large classrooms with hundreds of students at the same time may explain why care for an individual student is less pronounced, although we have to be careful in over-interpreting this finding given the relatively low marginal significant coefficients.

With respect to the second research question, the professional training program did not lead to a change in business teachers’ beliefs and intentions towards more student-centred learning. Although significant differences were found with respect to lower intentions in knowledge transmission when looking at all participants (i.e. business teachers and teachers from other disciplines) who completed pre- and post-test, indicating that participants were less convinced about the appropriateness of a teaching style focussed primarily on knowledge transmission, the seven business teachers actually stood out against this trend. It would therefore appear that they remained comfortable with developing a module based on a teacher-centred learning approach. We again remind the readers that this result should be treated with caution, given the low number of respondents.

One may wonder why business teachers maintained their relatively stronger teacher-centred beliefs throughout the training program, while teachers from other disciplines became more student-centred. Postareff et al. (2007) have found that triggering changes in teachers’ attitudes towards student-centred learning takes

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time. That is, longitudinal analyses of a range of face-to-face training programs in Finland that differed based upon the duration of the program showed that teachers participating in a short program of less than twelve weeks only marginally changed their attitudes towards teaching and learning. Furthermore, given that most participants had ten or more years experience in teaching, Marsh (2007) found that changing (senior) teachers’ attitudes towards student-centred learning is an even more difficult, long and cumbersome process. In particular in a business school environment, where teachers have to teach hundreds of students at the same time, applying a more student-centred approach may be impossible to achieve (despite following a training program that may be effective). Finally, to affect the change explained here may require a shift in the underpinning values that help to define the actions an individual takes (Lygo-Baker, 2006). This is thought to be the most difficult change to facilitate and therefore during the relatively short period between the pre and post test the shift was unlikely to have had an opportunity to become recognisable to the participants, or open to articulation through the measure used.

With respect to the technological, pedagogical, content specific knowledge and skills, initially business teachers were on average more positive about their ICT skills than peers from different disciplines. We found that all TPACK scores for the post-test were higher than the pre-test. Technological pedagogical knowledge and the overall TPACK score were significantly higher after teachers had completed the program. However, at the end of the training business teachers were less convinced about their technological pedagogical knowledge and technological content knowledge. A possible explanation for this is that although business teachers were in general more positive about their initial ICT skills, when working with other teachers in an innovative online environment, they may have become aware of the complexities of teaching and learning with more advanced learning technologies that they were familiar with in their classroom (Alvarez, et al., 2009; Löfström & Nevgi, 2008; Mishra & Koehler, 2006). New technologies may lead to anxiety amongst some staff (McCarney, 2004; Ziegenfuss & Lawler, 2008), and may push teachers outside their own comfort zone.

An interesting finding that deserves more exploration is that both disciplinary and institutional differences substantially influenced whether participants successfully completed a module or not. All eight participants from the research-intensive business school passed the online training program, while none of participants from the three teaching-intensive business schools succeeded. One possible explanation is that teachers in teaching-intensive business schools are more likely to already have substantial knowledge and expertise with pedagogical design and technology, as their roles are primarily focussed on teaching, providing pastoral care and administration. In contrast, most teachers participating from the research-intensive business school and their peers in the three other institutes were primarily judged and promoted based on their research profile (Kinchin, et al., 2008). An alternative explanation that needs further empirical verification is that business teachers from research-intensive business schools may have felt more comfortable working in groups with peers from other research-intensive institutes, as these academics all have similar pressures to perform in academia. In other words, there was a greater sense of a shared identity, or familiar community of practice (Wenger, 1998). Perhaps the participants from the teaching-intensive institutes, who were a minority in the overall sample, had less common ground to work within.

Limitations
A crucial limitation of our findings is that our measure of impact was based upon self-reported measurements of teachers’ beliefs and intentions towards learning facilitation and knowledge transmission (Stes, et al., 2010). A known problem with self-reported measurements is that participants who complete an intervention are in general more optimistic about their (perceived) change than those who fail to complete an intervention (Ebert-May, et al., 2011). Given that we did not randomise academics into a training and non-training condition, it would be impossible to determine whether the teachers would have changed even without teacher training.

A second obvious limitation is that we only have a limited sample of teachers from business education. While educational psychology research on student-learning typically uses large sample sizes of 200+ students, most research conducted within teacher education is naturally limited by the restricted number of participants who follow professionalization programs (Stes, et al., 2010). As such, the research relates to a more limited number and is indicative rather than generalisable.

A third limitation is that we did not measure whether business teachers were more effective in their daily teaching practice. That is, whether business students were offered a more student-centred, engaging learning experience following the intervention. Preliminary findings in face-to-face professional development by Ebert-May et al. (2011) and Stes et al. (2011) seems to indicate that even if teachers were more positive about their (perceived) student-centred orientation and pedagogical skills, in practice students did not notice any difference to the teaching they experience. However, Marsh (2007) argues that teachers only change their teaching practice when they critically think about their current practice. The challenge is often that without additional support to develop appropriate questions about practice, teachers do not know the options that there may be. By putting teachers from different disciplines and institutes together in an authentic online environment in MARCHPT, and by jointly redesigning and critically reflecting upon their module designs through this
interdisciplinary approach, we think that a first step has been made for these (senior) business teachers what may help them to rethink and (re)consider how technology and pedagogy can be effectively integrated into their teaching practice. Although our findings seem to indicate that achieving this with (some) business teachers is a challenge, we believe that, with the right support and encouragement from peers, teacher-centred business teachers will change as well. Such change is of course based on the current assumption that a student-centred approach is of greater benefit to learning and can be facilitated by ICT even in large groups of students. If this is accepted it challenges us to find ways to enable this to occur in our future design of professionalization of business teachers learning

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Antecedents of learning behaviour in a blended learning environment

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Abstract: Empirical research into students’ self-regulation of learning when using computer-based learning environments (CBLEs) has made considerable progress. Where most progress is achieved studying learning in laboratory settings, limited research has been conducted in natural settings. Learning with a CBLE in a natural setting nearly always comes down to some form of blended learning: face-to-face learning combined with e-learning. In this empirical study, we investigate learning behaviours of 2461 university students within a blended environment where the CBLE, an adaptive e-tutorial, is designed to support face-to-face learning in a problem-based learning setting. A social-cognitive framework of learning, incorporating implicit theories, effort beliefs, goal orientations, and motivation and engagement is applied to specify antecedents of learning regulation within the blended learning environment. Using structural equation modelling of both self-report and system tracking data, we find that less adaptive students, in terms of students scoring high on impeding cognitions, turn out to be intensive e-learners. However, these less adaptive students do not profit to the full extent from their high learning efforts in the CBLE.

Introduction

The rapid developments in recent years regarding the use of ICT in education offer both possibilities as well as challenges for teachers and learners alike. For example, the use of computer-based learning environments (CBLEs) can enlarge the flexibility of individual learners to be engaged in learning activities free of time and place, albeit the individual nature of CBLE challenges learners to more actively regulate their own learning (Azevedo, 2005; 2008; Lajoie & Azevedo, 2006; Shih, Chen, Chang, & Kao, 2010). Especially learning about conceptually rich domains in CBLEs has been shown to put high demands on students’ competencies for self-regulated learning (SRL; Azevedo, 2005, 2008; Lajoie & Azevedo, 2006). Individual differences in the choices learners make may be explained by SRL as recent research found that learners with high adaptive learning competencies in general will be more successful in learning in a CBLE (Greene & Azevedo, 2009). In addition, recent research on learning in a CBLE also suggested that patterns in individual preferences for learning such as SRL, can in turn be explained from social-cognitive frameworks of learning. An influential exponent of a social-cognitive framework that however received little attention in studies of learning in a CBLE, is that of students’ self-beliefs based on implicit theories (Dweck, 1999; Greene, Costa, Robertson, Pan & Deekens, 2010; Tempelaar, Niculescu, Rienties, Gijselaers, & Giesbers, 2011).

Though there is an increase in studies addressing SRL in the context of CBLE research, studies investigating the role of SRL in learning with CBLEs that are situated in natural settings are scarce, or even non-existent. Because of various societal, governmental, educational and training needs, these natural settings can be expected to more often than not take a blended form where a CBLE supplements face-to-face learning (Bonk & Kim, 2006; Lawless & Pellegrino, 2007). In contrast to using face-to-face settings or CBLEs separately, creating a blended form of learning provides an additional array of choices and challenges for learners to allocate their time and resources to either one. Thus, for reasons of authenticity and ecological validity, and a complete understanding of learning with CBLEs, we argue studies addressing SRL in a natural blended setting are highly valuable. Therefore, this study investigates the relationship between SRL, the antecedents of SRL, and the actual behaviour of learners in an authentic blended setting.

In his well-researched model of SRL, Azevedo (2005) states that self-regulation competencies refer to main processes such as planning (e.g., activating prior knowledge), monitoring activities (e.g., self-questioning, judgment of learning), strategy use (e.g., drawing, coordinating informational sources, knowledge elaboration), handling task difficulties and demands (e.g., help-seeking behaviour), and demonstrating interest in a task or the content domain of a task (Greene & Azevedo, 2009). Empirical applications of the Azevedo SRL model indeed indicate that students with more adaptive learning competencies are generally more successful in learning with CBLEs, be it that the effect of favourable learners characteristics is generally strongly dominated by the effect of prior knowledge differences (Greene, Bolick, & Robertson, 2010; Greene, Costa et al., 2010). These empirical applications are typically designed within a laboratory setting, where students, after doing a prior knowledge test, learn about a specific topic with the CBLE as the sole learning tool, and finish the experiment.
by doing a post test (Greene, Costa et al., 2010; Greene, Bolick et al., 2010). In natural settings, it is impossible, or even unethical to control students’ self-regulation of the learning process to the extent that learning is restricted to the use of one single tool. Next to using the CBLE, students will apply for a range of learning modes, like face-to-face learning, and also other digital tools, like learning-management systems. Self-regulation of learning thus extends beyond SRL within the specific CBLE, and introduces more complex elements of self-regulation (e.g., how to allocate ones time over learning face-to-face and learning with the CBLE). In other words, how students self-regulate their learning within blended learning environments becomes the relevant research question when leaving the laboratory setting to go to a natural learning setting. As most learning in educational settings takes place in natural learning settings, our research is relevant for the vast majority of teachers and students, who do not learn in laboratory settings but in real-life authentic situations.

**Methodological challenges of research in natural settings**

In comparison to investigating self-regulation in experimental settings, in natural settings several methodological challenges need to be addressed. First, a question that occurs in natural settings is how to make the mentioned allocation of time on each part of the blend insightful and how to link this to individual learner dispositions like SRL. Here, the research tradition described by Lust, Vandewaetere, Ceulemans, Elen, and Clarebout (2011), and Lust, Juarez Collazo, Elen, and Clarebout (2012) is relevant, as they specifically aim to relate learner profiles with learning choices in a blended learning environment. In this research tradition, three stage models are hypothesized (Lust et al., 2012), where learner conditions act as antecedents of processes describing tool-use, which in turn impact the learning effects. Learner conditions both include students’ prior knowledge, and variables based on contemporary social-cognitive learning theories, such as students’ goal orientations, achievement motivations, and self-efficacy. Tool-use descriptors are based on system tracking, and include observable aspects of SRL. A main (methodological) challenge within this approach is to identify predictors for different tool-use patterns, in situation where multiple tools are used. The main obstacle to conducting research in natural settings is the asymmetry of data availability over these different tool-use patterns: whereas the tool-use patterns of the CBLEs can typically be based on tracking data, tool-use patterns of the face-to-face component in most natural settings are not directly observed, and can at best be approximated indirectly.

A second methodological challenge in investigating students’ use of a CLBE in a natural setting is the analysis of the role of prior knowledge. More often than not, learning in natural settings finishes with testing for knowledge proficiency, but does not start with a pre-assessment. Such post-test-only designs do not allow for an investigation into the role of prior knowledge in SRL. Recent research, however, suggests that role to be crucial, both as predictor of post-test performance, and as predictor of planning, monitoring and strategy-use as elements of SRL (Greene, Bolick et al., 2010; Greene, Costa et al., 2010; Moos & Azevedo, 2008). Missing this type of data source when investigating a natural setting may, however, have a more modest impact than is implicitly suggested by this research. If SRL indeed impacts post-test performance in the learning episode built into the experiment, there is no good reason to assume that SRL will not impact other learning episodes, such as those that shape prior knowledge. That is: SRL is probably as important as predictor of prior knowledge, as it is of post-test performance. But if the level of prior knowledge at any moment reflects the accumulation of SRL in all past learning episodes, the estimation of the role of SRL on post-test performance in a model together with the role of prior knowledge is bound to result in an underestimation of the role of SRL, and an overestimation of the role of prior knowledge. The very high level of the standardized path coefficient of prior knowledge reported in Green, Costas et al. (2010), with a beta equal to .928, may be indicative of such overestimation. These under- and overestimation effects are stronger, the shorter the learning episode: it is unlikely that for short learning episodes typical for laboratory research, the impact of SRL on post-performance is not yet caught in its impact on pre-performance. Also in research within natural settings, where learning episodes tend to be more substantial, prior knowledge will not be independent of SRL, and the exclusion of it from the model explaining post-test performance has the advantage of not underestimating the role of SRL, and the role of antecedents of SRL.

A third methodological challenge when investigating the impact of SRL on learning with CBLEs in laboratory and natural settings refers to the measurement of SRL. As self-reports of SRL activities tend to not be unbiased (Winne & Jamieson-Noel, 2002), contemporary studies prefer to use think-aloud protocols to capture students’ SRL (Green, Bolich, et al., 2010; Green, Costas et al., 2010). Even in laboratory settings, the experimental procedures sketched by Azevedo and colleagues (Azevedo & Cromley, 2004; Azevedo et al., 2005; Green, Costas et al., 2010) in coding and scoring SRL processes are formidable. In natural settings, given the larger samples typical for these settings, using qualitative techniques such as thinking-aloud protocols may be prohibitive, and beyond that not quite congruent with the natural aspect of the setting. To this, another argument can be added: if achieving sufficient statistical power in the estimation of a structural model requires all micro-level SRL observations to be aggregated into macro-level SRL scores, and to use these macro-level SRL scores as indicators for one single, latent SRL construct (as in Green, Costas et al., 2010), the resulting
construct is a proxy of SRL activities at the highest level of aggregation possible. However, most CBLEs have the potential to generate indicators of aggregated activities through tracking data. So when considerations of statistical power enforce the aggregation of detailed think-aloud data, the advantage of using these think-aloud protocols is expected to decrease compared to using self-report, or system tracking data.

A final difference between natural and laboratory settings refers the position of face-to-face learning in the blend. Some studies into SRL within laboratory settings do include face-to-face components beyond just digital forms of learning, but that face-to-face component typically serves a very specific function: enriching the CBLE with external regulation, e.g. by a human tutor, where the complex nature of learning with the CBLE means that some students need additional scaffolding to supplement inappropriate levels of self-regulation (Greene & Azevedo, 2009). The research question we will develop for this study deals with this issue of supplementary learning modes directed at the optimization of SRL in a blended learning environment. However, unlike the research referred to above, we will argue that in our study, and probably most natural settings, the supplementary relationship is reverse: due to the characteristics of problem-based learning, it is not the CBLE, but the face-to-face component of the blended learning environment that puts most demands on the students. Students can set the intensity for most of the components of the blended learning environment according to their personal preferences. By measuring system tracking data we can reveal some of these preferences. This study aims to explain patterns in the system tracking data through individual differences based on social-cognitive frameworks of learning, in specific, the implicit theories based meaning system of Dweck (1999), recently applied in the Green, Costa et al. (2010) study investigating antecedents of SRL when learning with a CBLE, and in Tempelaar et al. (2011) modelling antecedents of achievement emotions.

The learning blend
The blended learning environment investigated in this paper combines face-to-face learning according to the problem-based learning principle, with CBLE based learning consisting of the adaptive, e-tutorial ALEKS (Falmagne & Doignon, 2011) in the domain of introductory statistics. The main principles of problem-based learning (PBL) are collaborative learning in small groups of students, steered by open-ended problems. In PBL, students take the stage and perform the leading part in small groups of twelve students where they discuss open, unstructured scientific and practical problems prepared by teachers. PBL requires, relative to alternative instructional approaches, high SRL competencies of its students.

The CBLE applied in this study is the test-driven, adaptive, electronic tutorial: the ALEKS (Assessment and Learning in Knowledge Spaces) Business Statistics module. This tool makes use of server-based computing, and can be characterised by its support of individual learning from a remote basis. The ALEKS system (Falmagne & Doignon, 2011) combines adaptive, diagnostic testing with an electronic learning and practice tutorial. One pillar of ALEKS is the description of statistics as a scientific domain with a hierarchic knowledge structure, that specifies the interdependencies between the individual items spanning the domain. This knowledge structure indicates which knowledge states are feasible, and which are infeasible. All the feasible knowledge states together constitute the knowledge space. The second pillar of the system is the adaptive assessment engine that provides a probabilistic estimate of the knowledge state of any individual student. Based on that assessment, the system offers material that the student is best able to learn at a given time. In fact, the student can choose from two types of tasks: those belonging to the outer fringe, and those belonging to the inner fringe of the student’s knowledge state. The outer fringe consists of new activities, not practiced before, for which the mastery level is estimated at less than complete (items suggested for review). Together, inner and outer fringe constitute Vygotsky’s zone of proximal development. The learning report depicted in Figure 1 provides a detailed, graphic representation of the class, or an individual student’s knowledge state by means of pie-charts divided into slices, each of which corresponds to an area of the module. In the context of this study, it is crucial to realise that the CBLE takes up important learning regulation activities and also supports students in their self-regulation, in terms of planning, monitoring and strategy use.

Next to ALEKS, the learning blend under analysis is completed with a second digital tool: the learning-management system BlackBoard. The system serves no further role than to support the PBL with its organisational and administrative functions. We profit from this restricted functionality in our context to solve the challenge of empirical research into blended learning addressed above: that of asymmetric data availability of learning choices over the different blends. Since BlackBoard manages the face-to-face component of the blend, it is hypothesised that intensity of using the course management system is a good proxy for the intensity of learning in the face-to-face mode.

Implicit theories based meaning systems
The theoretical frameworks on meaning systems surrounding implicit theories of intelligence have been employed since the late eighties (Dweck & Leggett, 1988), and in 1999 Carol Dweck provided a strong stimulus for empirical research based on the framework. In her monograph (1999), Dweck describes the functions and
origins of the meaning system and its components: implicit theories of intelligence, effort beliefs, goal setting behaviour, achievement motivations and self-regulation strategies; and append these with instruments for operationalizing constructs as incremental and entity theories of intelligence, positive and negative effort beliefs, and goal choice.

Despite the vast potential offered by Dweck’s work, the number of empirical studies which employ Dweck’s theoretical framework to its full extent remains very limited, if such studies exist at all. The vast majority of studies choose to simplify the framework through the reduction of related, unipolar constructs into a single bipolar construct. This is typically accomplished by transferring incremental and entity theory constructs into one implicit theory construct, and by transferring positive and negative effort beliefs into one effort belief construct. From a methodological perspective, such a reduction would be defensible only when the two related, unipolar constructs prove to be empirically indistinguishable. Few studies, however, put this explicitly to the test. Second, there is scarcity of empirical studies which recognise the mediating role of Dweck’s (1999) effort beliefs in the relationships between implicit theories and learning-related constructs, such as goal orientation and achievement motivation. In sum, empirical studies which use the full potential of Dweck’s theoretical frameworks are conspicuously absent. By incorporating the complete array of implicit theories, effort beliefs, and goal orientations in designing a model for the antecedents of learning choices, we aim to demonstrate the advantage of employing the full potential of Dweck’s self-theories meaning system.

The motivation and engagement wheel
Martin’s Motivation and Engagement Wheel is the theoretical framework we apply in this study as a mediator of students’ beliefs and self-regulation of learning. This overarching framework for learning motivation (Martin, 2007) is designed to integrate several learning-theoretical perspectives, and encompasses aspects of cognitive views on motivation as developed by Pintrich (2003), attributions and expectancies, valuing dimensions, self-regulation, planning and task management, and self-efficacy. The architecture of the framework consists of four higher order dimensions, being the adaptive cognitive, the adaptive behavioural, the maladaptive or impeding cognitive, and the maladaptive behavioural dimension, shaped by first-order dimensions. The suitability of this integrative motivation theory for practical purposes is based on the presumption of changeability of these dimensions: motivation is learnable.

Current study and research question
Building on social-cognitive frameworks for learning (meaning systems composed of implicit theories, effort beliefs and goal orientations, and achievement and engagement), that are hypothesised to function as antecedents of self-regulated learning within a blended learning environment, we focus on students’ learning choices with regards to the intensity of the use of several components of the blend. In our empirical study, the blend consists of a combination of a highly demanding form of face-to-face learning, based on PBL, with an e-tutorial that offers strong learning regulation support. In this context, the issue of learning choices seems to come down to the following specific question for every student: how much support from the e-tutorial do I need in order to be successful in learning in problem-based learning tutorials?

Material and methods
Participants and educational context
This study involves three cohorts comprised of first-year students (academic years ‘08/09’, ‘09/10’ and ‘10/11’) of a Business and Economics School in the southern part of the Netherlands. This school’s programme deviates from a conventional European university education in two important ways: it employs the student-centred learning approach PBL, and it has a strong international orientation—all degrees are offered fully in English and attract primarily non-Dutch students. These cohorts together consist of 2977 students, of which 2461 students had full data records and are included in this study. Of these 2461 students, 71% had an international background (mostly European, with somewhat more than 50% originating from German speaking countries in Europe); the remaining 29% were Dutch. 63.3% of the students were male and 36.7% were female. The participants’ ages ranged from 17-31, with an average age of 20.21 years, but most students were in their teens (median age = 19.82 years). All students were actively pursuing a business and economics degree.

In the first term of their first academic semester, these students took two required, parallel courses: an integrated course organizational theory & marketing, two subjects from the behavioural sciences domain, and an integrated methods course mathematics & statistics. The methods course is supported by ‘practicals’ of which those for statistics are fully based on ALEKS. Doing the practicals is not a requirement, however, they are especially beneficial for students who lack prior knowledge, need to refresh statistics due to schooling discontinuities, and/or experience methods courses as difficult. The strong heterogeneity of student inflow, combined with major differences between high school programmes of European countries, complicates a proper
description of the level of prior schooling of students in the sample. Most European countries though, distinguish between two different levels or educational tracks of high school mathematics: basic and advanced.

Materials

*Implicit theories of intelligence.* Measures of both entity and incremental implicit theories of intelligence were adopted from Dweck’s Theories of Intelligence Scale – Self Form for Adults (1999). This scale consists of eight items: four entity theory statements and four incremental theory.

*Effort beliefs.* Measures of Effort beliefs were drawn from two sources: Dweck (1999) and Blackwell (2002). Dweck provides several sample statements which are designed to portray effort as a negative concept—i.e. exerting effort conveys the view that one has low ability, and effort as a positive concept—i.e. exerting effort is regarded as something which activates and increases one’s ability.

*Goal orientations.* Goal setting is operationalised by the revised Patterns of Adaptive Learning Scales (PALS: Midgley et al., 2000). It is a trichotomous instrument, distinguishing one type of mastery goal, and two types of performance goals: approach and avoidance.

*Motivation and Engagement Scale.* The Motivation and Engagement Scale – University/College (MES-UC: Martin, 2007) measures university or college students’ motivation and engagement. The MES-UC consists of four scales and eleven subscales subsumed under the four scales. The MES-UC scales and subscales are as follows. The first is the adaptive cognition scale, which reflects students’ positive attitudes and orientations to academic learning, and is composed of the subscales self-belief, valuing school, and learning focus. Self-belief refers to the confidence to do well in university. Valuing is the belief that what you learn at university is useful and important. Learning focus is being focused on learning, solving problems, and developing skills. The second scale, adaptive behaviour, reflects students’ positive behaviours and engagement in academic learning, and contains the subscales persistence, planning, and study management. Persistence, signals how much students keep trying to work out an answer or to understand a problem, even when the problem is difficult or challenging. Planning, measures how much students plan their work and keep track of their progress. Study management covers the organisation of a study time table, choosing and arranging where to study, and the use of study time. Third, students’ attitudes and orientations that inhibit academic learning are collected in the impeding or maladaptive cognition scale, including the subscales anxiety, failure avoidance, and uncertain control. Anxiety is the extent to which students feel anxious when thinking about or doing university work. Failure avoidance is the motivation to do university work to avoid doing poorly. Uncertain control echoes the extent to which students are uncertain about how to do well and how to avoid doing poorly. Finally, the maladaptive behaviour scale reflects on students’ problematic learning behaviours, and includes the subscales self-handicapping and disengagement. Self-handicapping refers to activities that reduce chances of success at university, thereby creating an excuse for not doing well. And disengagement signifies a students’ inclination to give up on their university work or on university in general.

*Tool use.* From the broad array of tracking data generated by ALEKS, we selected two aggregated measures that refer to the intensity of tool use. The first is connection time or total amount of learning hours in the CBLE, which is referred to as hours. The second is the final level of mastery, referred to as mastery, which is an expression of the number of mastered lessons as a percentage of the total of available lessons in ALEKS. Of all 200 lessons the ALEKS module contains, 60% are relevant for our introductory course, implying that with regard to mastery of lessons, a ceiling effect at the level of 60% mastery is to be expected. The adaptive entry test the ALEKS module starts with determines the entry point of every student in the module. Students with more prior knowledge will enter the module at a more advanced level than students with less or no prior knowledge, and therefore, ALEKS hours and ALEKS mastery will differ for two reasons: individual differences in average time spent on all lessons, and individual differences in the level of the entry point. The third variable of tool use is based on tracking data for student activity in the learning management system BlackBoard. Student activity in this system is measured in terms of the number of clicks, which is referred to as BBClicks. Since the functionality of BlackBoard has changed over time, adding new functionality in subsequent years, the number of clicks in different years are difficult to compare, and for that reason, that number is standardized for all three cohorts. Since BlackBoard is mainly used for administrative and informative functions, measured activity in BlackBoard is hypothesized to be a proxy for student activity in the otherwise unobservable component of the learning blend: the face-to-face component. In the modelling part of the analysis, all three tracking based variables, BBClicks, hours and mastery are used as single-indicator latent variables with zero error term. This implies that latent construct, and observed tracking variable, are identical in these three cases.

*Student type and student performance.* Since the possibility of gender differences is a topic in itself in SRL research, two different categorical variables provide a description of student type: gender, being an indicator variable (dummy) for female students, with males constituting the reference group, and MathMajor, being an indicator variable (dummy) for students educated at one of the several major levels with regard to mathematics, with students educated at basic level constituting the reference group (MathMinor). Four different course performance indicators are used in this study: the exam results for statistics and mathematics and the quiz results.
for both subjects. Exam statistics and quiz statistics are the primary performance measures, of which the quizzes are strongly tied to activities in the CBLE, since quizzes are administered in ALEKS. The quizzes are voluntary, as is participation in the ALEKS practicals, and bring a maximum bonus score of 4 points. In contrast, final exam items have a stronger conceptual orientation, and are administered as a written exam, with a maximum score of 20 points. In the derivation of the structural equation model, we will make use of the fact that beyond performance in statistics, performance in the other topic part, mathematics, is also known: exam math and quiz math. This performance data is known to be strongly correlated with performance in statistics, thus allowing for multiple observations of the latent constructs exam and quiz in the structural model.

Procedure
In the first three weeks of the term, the students were asked to complete the self-report questionnaires on implicit theories, effort beliefs, achievement motivations, and motivation & engagement as part of a data-analysis directed student project for statistics. The instruments apply a 7-point response Likert scale, ranging from 1 (strongly disagree) to 7 (strongly agree). All students consented to their data, in an anonymous format, being used for educational and research purposes.

Results
On average, students spend 23 hours in ALEKS; somewhat more than 25% of total learning time of 80 hours available for introductory statistics. In the time spent on CBLE, students achieve an average mastery level of 48% of available lessons in ALEKS (on average 80% of the relevant lessons). Standard deviations suggest that considerable variation in both hours and mastery exists between students. Because BBClicks is a standardized variable, its mean is slightly higher than the expected zero value, due to the fact that students with full data records (on which this study is based) are somewhat more active in BB than students with incomplete data records (left outside the study).

Figure 1 contains correlations of tracking data (hours and mastery referring to CBLE tool-use, and BBClicks as the activity level in the learning management system) on the one side, and the different components of the meaning system on the other side: implicit theories incremental theory and entity theory, effort beliefs effort positive and effort negative, achievement goals mastery, performance approach and performance avoid. To these observed variables, the categorical indicators gender and MathMajor are added, to provide a benchmark of the size of bilateral relationships.

Figure 1. Pearson product-moment correlations of implicit theories, effort beliefs, and achievement motivations

Figure 1 signals that female student were more active in the CBLE than male students, both with regard to hours and mastery. MathMajor students spend less hours than MathMinor students, but achieve the similar mastery levels. Correlations of both implicit theories are modest in size, and are dominated by the corresponding correlations of effort beliefs, with the exception of the exam score. On top of that: correlations of implicit theories and performance measures have the ‘wrong’ sign: incremental theory correlates negatively with exam and quiz scores whilst entity theory correlates positively. In contrast, correlations of effort beliefs are not only more substantial in size, but also of ‘correct’ sign: as Dweck’s meaning system hypothesizes, effort positive is positively, and effort negative is negatively, correlated with performance measures. The mastery goal contributes to high levels of activity, both in the CBLE and in the face-to-face component of learning. Smaller
correlations, but much larger differential effects are visible for the two types of performance goal subscales: both the performance approach and the performance avoid goal contribute solely to spending more hours in the CBLE, without affecting other variables.

Figure 2 displays the correlations of adaptive and mal-adaptive cognitions (thoughts) and behaviours. All adaptive correlations are positive, as expected, but two different patterns are visible.

Figure 2. Pearson product-moment correlations of adaptive and mal-adaptive cognitions and behaviours

The adaptive thoughts self-belief and valuing school relate to the two performance measures somewhat stronger than the three activity measures. In contrast, learning focus and all three adaptive behaviours, planning, study management, and persistence, have their strongest impact on activity in the CBLE, hours and mastery, and at a somewhat lower level on BBClicks, and a more modest relationship with performance measures. Correlations of maladaptive thoughts and behaviours are contained in the right panel of Figure 2, and demonstrate remarkable patterns. Most correlations are as expected, negative, but not uniformly. Anxiety negatively impacts all variables, except basic activity in the CBLE: hours. Failure avoidance negatively impacts the two course performance measures, but positively impacts hours. Uncertain control exhibits the same pattern as failure avoidance: no substantial impact on hours but a negative impact on all other variables. All three maladaptive thoughts together demonstrate a clear pattern: they impact hours differently than all other variables, including the second CBLE related variable: mastery. The two maladaptive behaviours, self-handicapping and disengagement, demonstrate a very different pattern of correlations: uniformly negative, no different role for hours, and specifically impacting mastery.

The patterns that are visible for maladaptive thoughts and behaviours provide an important background for the gender differences found in the two CBLE tool use variables, and specifically for hours. On the maladaptive side of motivation and engagement, female and male students demonstrate important differences: female students possess higher levels of maladaptive thoughts (failure avoidance excluded), male students possess higher levels of maladaptive behaviours. But maladaptive thoughts and behaviours have different relationships with all tracking-based data: maladaptive thoughts have mixed relationships with tool use variables (and uniformly negative relationships with course performances only), whereas maladaptive behaviours possess negative relationships with all variables. This to some extent explains the gender difference in hours.

Discussion

The outcomes of the structural model also indicated that CBLE learning efforts by students with high levels of maladaptive thoughts are less productive than learning efforts of other students, with a more favourable balance of adaptive and maladaptive thoughts and behaviours. Maladaptive thoughts appear to be a stimulus for CBLE learning efforts, but at the same time they negatively impact both proficiency achieved within the CBLE and general course performance; indicating that for these students, the relationship between learning efforts and learning outcomes is less strong.

One of the main components of CBLE self-regulation, hours in the CBLE, is a gendered variable. But with help of the detailed relationships between motivation and engagement constructs and CBLE tracking variables, this gender effect can be interpreted in terms of profiles with regard to adaptive and maladaptive thoughts and behaviours. Female students have higher levels of adaptive thoughts and behaviours than male students. With the exception of persistence, this gender difference impacts all components of the learning blend, so both CBLE
activity and face-to-face learning. The picture is different for maladaptive thoughts and behaviours: females score higher on the thoughts, males score higher on the behaviours. This difference has an impact on the balance between the components of the learning blend: where maladaptive behaviours have detrimental effects on all types of learning, maladaptive thoughts differentiate between types of learning, and have less impact on learning in the CBLE, than on face-to-face learning.

References
The role of work experience in willingness to share knowledge and online learning behaviour amongst business students

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Abstract: In Computer-Supported Collaborative Learning, learners have to construct meaning and co-construct knowledge in a blended or online setting. Limited research has addressed the underlying mechanisms why some business students passively contribute to online discussion forums, while others participate actively. Recently, more focus is placed on understanding how personal traits influence individual contributions to discourse as well as social interaction processes within teams. Héliot and Riley (2010) indicated that the personal willingness to disclose and exchange knowledge may explain actual knowledge sharing. Using a pre-post test design of willingness to share information, 215 post-graduate business students participated in teams of 4-5 learners in a blended learning environment in a quasi-experimental setting. In line with Tempelaar et al. (2012) and Rienties et al. (2009), the number logins, messages posted in the discussion forums, and social interaction processes were captured as proxy for social interaction and learning within teams. The findings indicate a positive relationship between the willingness to share knowledge and online learning behaviour. In terms of online behaviour, adult learners spent more time in the virtual learning environment, in particular in sharing knowledge with their team members.

Introduction

In a difficult and tough economic climate, work experience is becoming an increasingly important graduate skill for higher educational institutes to develop, train and nurture, as employers are primarily recruiting graduates with work experience. Work experience is perceived by employers as a positive graduate attribute. Employability is cited as one of the four pillars of the European Employment Strategy (Moreau & Leathwood, 2006). Therefore, the attention of business schools has been directed towards ‘producing’ employable graduates (Gerken, Rienties, Giesbers, & Kønigs, 2012; Tynjälä, 2008) via generic and specific skills trainings, offering internships and work-placements, all of which aim to develop and enhance the individual abilities, skills and employability of their business students. However, recent research on the outcomes of higher education have shown that there is a gap between the knowledge, expertise and attitudes needed in the business world and those produced through formal education (Den Bosch, 2008; Gerken, et al., 2012; Tynjälä, 2008). Management education delivers graduates that seem to possess a large amount of theoretical knowledge, but most graduates do not seem to be able to use their acquired (theoretical) knowledge in a business context (Arts, Gijseelaers, & Boshuizen, 2006). For example, Arts, Gijseelaers, & Boshuizen (2006) found that business students who have more theoretical knowledge but lack work-experience to solve real and authentic problems performed lower in an authentic business case than business managers and students with limited prior knowledge. The more work experience a business student has, the less (s)he has to rely on theoretical knowledge to solve problems.

Several authors have argued that one of the reasons why graduated find it difficult to find a job and to successfully apply their knowledge to the work-place is their lack of experience (Boyatzis, Cowen, Kolb, & Associates, 2003). However, adult learners (i.e. relatively more mature learners, who in general have some experience, who are physically older, and have relatively limited work experience) also exhibit significant differences in their academic, psychological and life involvement (Jarvis & Griffin, 2003; Marks, Sibley, & Arbaugh, 2005; Richardson & King, 1998). As most adult learners have work experience and try to relate their learning to problems of and challenges in their working life, they typically prefer to use a problem-based approach, which means that the starting point of their learning process is a real-life problem (Boyatzis, et al., 2003; Jarvis & Griffin, 2003). In contrast, some argue that traditional learners appear to use a surface learning approach, where they are aiming to reproduce material (e.g. theoretical knowledge) in a test or exam rather than fully understanding the complexities of a particular (application of a) problem (Arts, et al., 2006; Nijhuis, Segers, & Gijseelaers, 2008).

Another key characteristic of adult learning is the focus on application-centred learning (Jarvis & Griffin, 2003), which means the application of learning to new, unknown situations. This is largely due to the work experiences they possess (Arts, et al., 2006; Majeski & Stover, 2007; Park & Choi, 2009). According to Merriam and Caffarella (1999, p. 272) ‘an adult accumulates a growing reservoir of experience, which is a rich resource for learning’. Finally, it is argued that adult learners are also more collaboration-oriented, which directly relates to their motivation to learn. A typical characteristic of this collaboration orientation is their
willingness to exchange ideas with other adult learners, which reflects their experience to find different alternatives for solving a (work-related) problem. For example, in any international project context, the ability to develop multiple and alternative perspectives on a problem is seen as a central skill for performing tasks. This type of project work is often done in teams, and learners therefore need to train, develop and nurture their capabilities for team-work and collaboration (Henzé & Nejdl, 1997). Adult learners often adopt this collaboration approach because they can gain new knowledge to help them to solve important problems in their life and therefore willing to collaborate with other learners (Huang, 2002).

Although many theoretical models of adult learning have been developed, few of these models have been tested in practice (Jarvis & Griffin, 2003; Ke & Xie, 2009; Marks, et al., 2005; Rehm, 2009), in particular when adult learners and traditional learners work together in a blended learning environment. One the one hand, in Keeton (2004)’s study in an online classroom, adult learners showed more willingness to share and apply their experiences during online discussions. On the other hand, Ke and Xie (2009) found that adult learners (with more work experience) developed fewer online interactions in comparison to younger learners (with less work experience), and their level of sharing of knowledge/information was rather on a surface level. Furthermore, Marks, Sibley and Arbaugh (2005) found that full-time learners (most having no or little work experience) interact less with part-time learners (most having 5-10 years’ work experience) in online learning environment. One interpretation Ke and Xie (2009) offered was that deep learning might have occurred offline for certain adult learners.

It is important that business schools recognise the significance of sharing knowledge and opportunities for adult and traditional learners to share their experiences (Hernandez Nanclares, Rienties, & Van den Bossche, 2012; Mintzberg, 2004). Tynjälä (2008) emphasises that learning is a participatory process and participants’ motivation to share their knowledge with the network is an important determinant for initiating learning processes, which illustrates the importance of the interactivity (knowledge sharing) between learners. These arguments highlight the differences between these two cohorts of learners and suggest that adult learners are more likely to be able to solve complex problems, but at the same time might be less willing to share their expertise. However, the question as to whether these differences can be accounted as the reason that affects their learning behaviour and knowledge sharing, in particular, remains unanswered.

**Willingness to share knowledge**

In an attempt to understand why some learners are more willing or more reluctant to share knowledge amongst their peers, the notion of willingness to share knowledge may provide a fresh and alternative perspective on how individual learners and teams share knowledge. This section reviews the literature of willingness to share knowledge and illustrates the behavioural connections between knowledge and willingness, and suggests a theoretical linkage between work experience and willingness to share knowledge. Willingness, in its simplest form, can be conceived as a freedom from reluctance (May, Gilson, & Harter, 2004). Gao and Riley (2010) identified two aspects to the willingness relationship to knowledge. First, there is the willingness to be part of the knowledge transfer process and, second, the actual willingness to disclose and exchange knowledge. Willingness to participate does not guarantee the latter. Both aspects of willingness are influenced by reciprocity.

Kelly and Breinlinger (1996) argue that a willingness to participate might be better understood as an aspect of identification with particular groups. For example, adult learners might feel more connected to other adult learners given their similarity of backgrounds. As a result, adult learners may be more willing to share their knowledge with other adult learners rather than traditional learners who have less work experience. This also implies the importance of reciprocity in the knowledge transfer process. A study by Héliot and Riley (2010) has shown a differential influence of indicators, that can be interpreted in terms of motives and as potential barriers to knowledge sharing. The nature of these indicators is that of a predicted environmental response to the contemplated act of knowledge transference. In this sense, these indicators have the character of motivational stimulus-response but in this case the response is anticipated not enacted (e.g. if I disclose my knowledge, I may get a particular response). Individuals’ response will be moderated by the level of valence (i.e. psychological value) attached to the indicators, for example, the absence of financial reward for an individual who attached to a high valence to that stimulus may create reluctance to share knowledge with others.

Moreover, Molm (1994) suggests that a structure of reciprocal dependence is a defining characteristic for all social relations based on exchange of knowledge. In the case of learning, these exchanges directly relate to knowledge exchange. Goh (2002) argues that co-operation and collaboration amongst learners are critical to knowledge transfer. For example, knowledge transfer requires the willingness of the individual to work with others and disclose knowledge to mutual benefit. This implies that knowledge transfer will not occur in an organisation (in our context a classroom or team) unless groups have a natural tendency (propensity to reciprocity) to share and collaborate with each other. This has particular relevance to knowledge sharing between university students, whereby in most business schools a mix of traditional learners and adult learners are present at a post-graduate level.
Work experience as valued knowledge

Work experience can be seen as valued knowledge for adult learners because this is what distinguishes adult learners from traditional learners, who have less work experience, and gives adult learners a more insightful understanding of the complexities of business processes, which in turn may be relevant for business studies. This valued knowledge, according to Gao and Riley (2010) can be internalised by individuals and therefore can be regarded as a psychological possession that forms an inner meaning to oneself. One possible value that can be placed on knowledge is that of utility, which is valued for its usefulness. In a learning context, this usefulness can be related to a knowledge gain. The concept of usefulness grants to knowledge an instrumental purpose; something has to be achieved. The achievement can be an action, a thought or both but, in either case, the knowledge has a value (Gao & Riley, 2010). It is this knowledge that has the capacity to be favoured and valued (Héliot & Riley, 2010). These feelings transmit themselves into behaviour, which can be constructive but also dysfunctional with effects such as failing to give away information. Héliot and Riley (2010) further argued that it is the tendency to favour what is felt to be possessed that has an influence on the willingness to disclose and exchange knowledge. This would be especially strong when an individual has created new knowledge. It would be surprising if a ‘knowledge creator’ does not feel a sense of attachment to it (Newell, Robertson, Scarbrough, & Swan, 2002). Bernstein (2000) argued that knowledge can be internalised. For Bernstein, knowledge is an outer expression of an inner relationship. This inner relationship is a guarantee of the legitimacy, integrity, worthwhileness and value of the knowledge. The important relevance of above arguments to this study is the behavioural implications they bring for learning. That is, if work experience is valued and internalised knowledge for adult learners, it may have an effect upon their willingness to share knowledge (e.g. who, what and how much they are willing to share).

Contemporary problem of CSCL

Online learning has received increased attention for business education research (Arbaugh et al., 2009). There is no lack of evidence to highlight the usefulness of ICT tools, such as discussion forums, can provide a rich and valuable learning experience for business students (Giesbers, Rienties, Gijseelaers, Segers, & Tempelaar, 2009; Rienties, Giesbers, Tempelaar, & Lygo-Baker, 2012; Rienties, Tempelaar, Van den Bossche, Gijseelaers, & Segers, 2009). A most recent study by Rienties & Townsend (2012) indicates that for a successful integration of ICT in business education it is important that there is a balance between the content of the course, the use of technology and pedagogy. This means that teachers need to know, understand and appreciate the three aspects (content, pedagogy, and technology) as well as their complex interactions.

However, willingness to share knowledge is a contemporary problem of Computer Supported Collaborative Learning (CSCL). Research has shown that only few learners actively share knowledge in blended and online settings (Caspi, Chajut, Saporta, & Beyth-Marom, 2006; Rienties, et al., 2009). Other research has questioned that the application of ICT in business education which does not automatically lead to improved learning experiences for students (Giesbers, et al., 2009). For example, Rienties and Townsend (2012) point out that the implementation of ICT in education can only have added value if the implementation of ICT is well-designed and implemented.

The above studies clearly show the usefulness of ICT/CSCL for business education, however, how do traditional and adult learners behave in the online learning environment and in particular, what makes them willing or reluctant to share their knowledge with others is under-researched. Only a few studies investigated in this area. For example, Keeton (2004) found that opportunities for collaborative knowledge construction can stimulate adult learners’ willingness to share their experiences during online discussions. If these opportunities are not present, it can have negative effect on adult learners’ willingness to actively contribute in online discussion forums. These studies revealed the reluctant behaviour of learners in online learning environment; however, do not offer insightful explanations as to why adult and traditional learners are willing or reluctant to share their knowledge in CSCL or online learning environment, in particular, for business schools. The theoretical stands of this study highlight the important role of work experience in willingness to share knowledge and this may offer an explanation to learners’ online behaviour.

Research question

The above review of the literature clearly shows the importance of three independent areas for post-graduate learning; work experience, willingness to share knowledge and learners’ online learning behaviour. What is missing is an understanding of the linkage and the phenomena of willingness to share knowledge in theory (indication of willingness to share) and in practice (actual behaviour in online knowledge sharing environment). In order to address these research and theoretical concerns, this study focuses on the examination of the relationship between work experience, willingness to share knowledge and online learning behaviour. These lead to the formation of the research questions for this study:

1) To what extent is the willingness to share knowledge related to work experience and online learning behaviour?
2) Is there a difference between learners with more work experience and learners with limited work experience in their willingness to share?

Method

Participants and Setting
Using a quasi-experimental design, this study was based on 215 postgraduate learners in an Organisational Behaviour module in a UK business school in the South of England. Learners in this module had a strong diversity in terms of their background, such as work experience and programmes. 64% of the participants were female, while the average age was 25.21 (SD = 5.22) with a range of 21-51. This module included learners from five different programmes: MSc in Entrepreneurship, MA Intercultural Communication with International Business, MSc in Food management, MSc in Healthcare management, and MSc in International hotel management. Learners within each of these programmes had diverse work experiences. For example, the Entrepreneurship programme consists of several learners who had their own small or medium sized enterprises (e.g. hotel, factory, bakery, travel agent etc.). In the intercultural communication with international business programme, learners have a background in working in large business consultancies. In the food management, learners had strong food science experiences. In the healthcare programme, learners are typically from professions such as medical doctors, senior nurses, and departmental managers. In international hotel management, there are learners who worked in the international hotels in management or operational roles.

During the module, learners worked on several team tasks, whereby a case study and a set of questions were given to the teams at the end of each lecture. Each case study was directly related to the lecture topic. These team tasks were designed with three purposes: first, to reinforce the understanding of the theories taught; second, to simulate discussions and to increase interactivity between learners outside classroom; third, to support the learners to gain deeper understanding of the theories discussed. Teams were expected to work together as a team in order to provide responses to the questions. For each team, a separate private team community was available in the virtual learning environment (VLE). The learners were encouraged to discuss their views via VLE and were invited to share their answers in the subsequence class. These team products were not formally assessed in terms of a grade, but the teacher provided formative feedback in the class.

Measures

Prior Knowledge and Prior Work-Experience
During the first week of the module, 181 learners (84.2%) filled in an own-developed questionnaire measuring work experience, prior knowledge, and anxiety, which consisted of 7 items. The classification of their work experiences was derived from their responses to this initial questionnaire in week 1, which asked them to indicate the extent of their work experience ('I have a lot of work experience'), on a 7 point scale (1 = 'this is very true of me'; 7 = 'this is not at all true of me'). In order to ensure that the two cohorts and the teams were similar in terms except in terms of work experience, learners and teams were pair-wised matched on work experience, prior knowledge, language mastery, and anxiety. Cohort 1 (i.e. traditional learners) consisted of 87 participants with on average less work experience (M= 5.32, SD =1.90), who worked together in teams of 4-5 learners. Cohort 2 consisted of 94 learners who on average had more work experience (M=3.31, SD =2.11), which will be referred to as 'learners with work experience'. It is worth noting that only two items, the degree of previous work-experience and learner’s fear to fail were significantly different (p < .05), while no differences were found in terms of gender, age, or language skills. Although we did not communicate explicitly how we divided the cohorts across the 40 teams in a quasi-experimental design, given that learners in both conditions were sitting together in the same lecture room, we cannot guarantee that learners from one cohort were mixing with learners from the other cohort. Learners who did not fill in the questionnaire in week 1 were clustered into team 41-44. These learners were removed for the follow-up analysis due to their lack of engagement/contribution in the community.

Willingness to Share Knowledge
The willingness indicators instrument by Héliot and Riley (2010) was used to assess the change in willingness to share knowledge in a pre- and post-manner. During the fourth week of the module, 186 learners (86.5%) filled in a willingness to share questionnaire. This questionnaire measures the degree of willingness or reluctance to share knowledge, and the conditions attached to it. Each willingness indicator represents a condition in the process of knowledge sharing. The questionnaire consists of 8 items. Learners were asked to respond to the 8 items using a 7 point response scale (1 = 'this is very true of me'; 7 = 'this is not at all true of me'). Finally, during the eleventh week of the module, 176 learners (81.9%) filled in the post-willingness to share questionnaire. In total 176 (81.9%) learners filled in the pre- and post-test of willingness to share questionnaire.
The cronbach alpha is .78 for the pre-willingness and .78 for the post-willingness, indicating stable and appropriate reliability.

**Learners’ online learning behaviour**

Previous research has highlighted that log-files from VLE can provide an appropriate proxy for online learning behaviour (Martinez, Dimitriadis, Rubia, Gomez, & De la Fuente, 2003; Tempelaar, Niculescu, Rientes, Giessbers, & Gijselaers, 2012). In this study four types of log-files were used: learners’ total time spent in the VLE; the total number of messages posted online in the general forum (i.e. visible to all 215 students); the total number of message posted in the private team forum; and finally the aggregate of the two forums.

**Results**

**Change in willingness to share knowledge during the module based upon work experience**

Figure 1 illustrates the learners’ (perceived) willingness to share knowledge in pre-test after four weeks and post-test after eleven weeks. As the willingness scale ranged from 1 (strong influence) to 7 (no influence), it is worth noting that a lower score of a willingness item implied a stronger (perceived) influence, while a higher score of a willingness item implied a limited (perceived) influence for learners to share knowledge. Using a cut-off value of 2.5, the results in Figure 1 suggest that there were three willingness indicators that were perceived to be more important by learners. These three indicators were ‘if I could trust my colleagues’, ‘if it would enhance my professional standing’, and ‘if I would receive new knowledge in exchange’. This importance implied that the conditions of trust, professional standing and reciprocal knowledge exchange influenced learners’ (perceived) willingness to share or not to share knowledge. In contrast, taking a cut-off value of 3.0, the three least important willingness indicators were ‘if there were no competition’, ‘if I had financial incentive’ and ‘if it would make me well known’. These results suggest that competition, financial incentives and reputation were perceived to be less important conditions in simulating learners’ willingness to share knowledge at the beginning of the module. As is illustrated in Figure 1, although all willingness to share indicators increased over time, using a paired-sample T-test at a 5% confidence interval none of these indicators changed significantly overtime (i.e. from pre-test to post-test). In other words, although learners average scores did increase over time, in statistical terms the learners’ willingness to share knowledge remained stable over time.

![Figure 1. Learners' general tendency in willingness to share knowledge](image)

In order to answer question 1 whether learners with more work experience differed in terms of their willingness to share knowledge and their actual behaviour in the virtual learning environment, we compared the two cohorts of learners. In the pre-test after four weeks, there were no significant differences between the two cohorts in terms of their willingness to share knowledge using independent sample testing. This indicated that the willingness to share knowledge at the beginning of the module was not dependent on work experience. In the post-test, changes only occurred in the cohort 1 with limited work experience using paired-sample t-testing, while cohort 2 with more work experience did not significantly change their willingness to share knowledge.
Relationship between willingness to share knowledge and online learning behaviour

An average of 242 minutes (SD = 198.40) per learner was spent using VLE. An average of 2.00 (SD = 6.00) messages were posted by an individual learner, of which most of the messages were posted in the OB community, where learners shared knowledge with their team members only. Only 0.33 messages (SD = 1.06) were posted in general discussion forum, which was accessible to all learners, while 1.66 (SD = 5.19) messages per learner were shared in the private team forum. It is worth noting that the standard deviation is larger than the mean for three out of the four VLE indicators, implying that some learners were really active in sharing knowledge, while others were not. This finding is similar to previous findings (Caspi, et al., 2006; Rienties, et al., 2009), whereby the majority of messages were posted by a minority of learners.

Significant correlations were found between willingness to share knowledge and total login time (Pearson r = .17, p < .05); between willingness to share knowledge and total discussion messages posted (Pearson r = .17, p < .05); between willingness to share knowledge and discussions in OB community (Pearson r = .18, p < .05). These findings illustrate a strong association between willingness to share knowledge and online behaviour for business learners. It implies that positive willingness to share knowledge is likely to result in positive online behaviour (e.g. more time spent, more messages posted). However, there were no significant relationships between willingness to share knowledge and discussions in the general forum.

Relationship between changes of willingness and online learning behaviour

Significant differences were found in the two cohorts in relation to the number of messages posted in the OB community and total message posted. These results suggest that learners with more work experience were more active in using the VLE, and in particular shared more messages with their team members than learners from cohort 1.

Discussion and conclusions

This study attempted to understand the role of work experience in willingness to share knowledge and online learning behaviour among 201 post-graduate learners in a UK business school. The results show significant correlations between willingness to share knowledge and actual online learning behaviour, indicating a positive relationship between willingness to share knowledge and online learning behaviour. A clear difference between learners with more work experience and learners with limited work experiences in their willingness to share knowledge was also observed.

The first research question addressed to what extent the willingness to share knowledge was related to work experience and online learning behaviour. The relationship between willingness to share knowledge and online learning behaviour was evident. Current literature on the understanding of online learning behaviour is predominantly focussed on offering explanations with number of factors, such as personality (Caspi, et al., 2006), social presence (Giesbers, et al., 2009), learning preferences (Tempelaar, et al., 2012) and individual characteristics (Park & Choi, 2009). The findings of this study contribute to this body of literature by further extending the understanding of online behaviour by inserting the importance of the notion of willingness to share knowledge (Héliot & Riley, 2010). The findings indicate a positive relationship between willingness to share knowledge and online learning behaviour. However, the relationship between willingness to share knowledge and work experience was not significant.

In terms of online behaviour, learners with more work experience spent more time on virtual learning environment, in particular in sharing knowledge with their team members. This finding differs from Ke and Xie (2009), who found adult learners with more work experience had less online interactions in comparison to learners who have limited work experience. This finding reflects Keeton (2004)’s study in online classroom, whereby adult learners are more willing to share their experiences during online discussions. One explanation to this may be that more work-experienced learners are more collaboration- oriented (Henze & Nejdl, 1997), and they see sharing as an opportunity to gain new knowledge (Huang, 2002), while younger less-work experienced learners may perceive that sharing knowledge with peers might put them at a competitive disadvantage.

Limitation

Although the methodology has proved to be useful for the purpose of the study, it is not without its limitations. The first limitation is that the study dealt with highly complex definitions: notably, the notions of willingness to share knowledge and work experience. Linking these two concepts required us to step into unmarked territory. Second, there was no data available whether students worked beside their study or not, which we suspect that this group could be the majority of the cohort with lot of work experience. This would have allowed for further analysis in the understanding of the behaviour of these cohorts. Third, this study did not use qualitative research method, for example, interviews, to gain further insight of two cohorts’ behaviours. It would complement the current
research method and would allow rich responses to unfold the ‘why’ aspect of the study in understanding the relationship between willingness to share, work experience and online behaviour.

References


Exploring technology to modernise undergraduate teaching: Experiences from a Franco-Russian partnership

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Abstract: The dramatic changes taking place in higher education are causing a shift in culture. The explosion of digital, social and mobile technologies has created a culture in which younger generations participate more in creating and sharing content, profoundly changing the way students communicate, interact and learn. Web technologies have enabled higher education institutions (HEIs) to offer programmes to students worldwide; they have also facilitated international collaboration and research opportunities among academics. In the global online environment, time and geography are no longer primary constraints. Despite the great disparity which exists in Internet access and in Internet user behaviour worldwide, technology can be used to share knowledge and information between HEIs. But collaborative projects face many obstacles. This study explores the opportunities and challenges facing teaching staff within the cultural context of an international higher education partnership. The intention is to solicit feedback from faculty, in order to identify best practice and to develop synergy between the two institutions.

Introduction

The setting for this enquiry is the new partnership between St Petersburg State Polytechnic University, Russia (SPbSPU) and IDRAC School of Management, France. It explores how teachers use technology for teaching - with a view to identifying best practice, and then sharing this knowledge. It is the first attempt at collaborative research, undertaken alongside a parallel study within the two institutions which investigates the online user behaviour of generation Y students. As such, it is “brick in the wall” research; a small contribution to the potentially massive changes taking place in post-communist Russia. It calls into question aspects of management thinking, communicating styles and pedagogy.

Aim

This investigation explores the extent to which faculty use online technology for teaching; particularly the sites and services that they choose to integrate into undergraduate business programmes. The purpose is to compare teaching practices across the partner institutions by means of observation and interview. Short-term, the intention is to raise awareness of technology-led learning, adapted to the specific context of each institution. Long-term, the objective is to investigate networked technology to develop online resources that can be shared between the institutions, tailored to the needs of the international cohort who spend a semester at each institution. The first step is to provide an overview of the current environment in higher education especially the issues surrounding internationalisation, and then to audit the use of technology in the classroom within each institution.

Internationalisation of higher education

Of all the massive changes taking place in higher education, one of the most noticeable is international expansion. This trend is the result of various factors including “a desire to promote mutual understanding; the migration of skilled workers in a globalised economy; the desire of the institutions to generate additional revenues; or the need to build a more educated workforce in the home countries, generally as emerging economies” (OECD, 2004: 1). The combined impact of these factors has produced a dynamic environment characterised by intense competition between institutions and emerging networks of international collaboration. Many institutions are shifting to a “market-led culture” (Little and Williams, 2010: 116) focusing on the student as a global consumer, financial sustainability, government regulations and corporate responsibility (Onsman, 2008). A number of frameworks have been put forward in literature outlining the factors that foster closer international collaboration between institutions. Frameworks include the “benefits-driving model” of integrating an international dimension into higher education (Wu and Yu, 2006: 213), the “infusion approach” which involves introducing international knowledge and perspectives in such a way that students perceive these as relevant to their pre-existing or evolving educational and career interests (Skidmore et al., 2005), and “network power” (King, 2010: 588) to describe the alliances formed through person-to-person projects on the basis of
shared interests, rather than by trans-ministerial agreement. There also exist other motivations for internationalising that can broadly be described as political, economic, academic or socio-cultural (Jiang, 2008).

There are certainly limitations to using a theoretical approach for international expansion but the situations where these frameworks cannot be applied - or have been applied and failed (Walton and Guarisco, 2008) - are generally less documented in literature. Data available in the public domain provides abundant illustrations of a trend towards global convergence among institutions of higher education (Beerkens, 2008; Dobbins and Knill, 2009) and the emergence of technology-led pedagogy (Han et al., 2009; Mitry and Smith, 2009). Nevertheless, there are many enduring national and regional variations that hinder the development of international partnerships in higher education.

After the fall of the Berlin Wall, many international collaborative ventures were formed in which the Western developed economies took on a leading role in transferring knowledge to the Eastern transition economies (Lane, Salk and Lyles, 2001). In contrast to the business world, there has been more reciprocal interdependence and two-way knowledge transfer among academics (Gill and Butler, 2003) – but Brennan et al. (2004: 58) state that the expansion of higher education has been fostered, not “because of a belief in the intrinsic good of education [but for] more instrumental purposes to do with economic development, social cohesion, national identity and so on”. While developments in ICT have enabled greater international collaboration, they have also led to the increased use of technology-led learning in HEIs and this has challenged faculty and their practice (Jones and Lau, 2010).

Opinions about technology-led learning range from euphoric optimism to reserved judgement. Hiltz and Turoff (2005: 60) put forward that current technological developments will be seen in the future as “revolutionary changes in the nature of higher education as a process and as an institution”. Tonks (2005: 372) reminds us that “while educational technology can enrich learning experiences and outcomes, it is not axiomatic that such enrichment will follow”. For the time being, it is thought that “most students still prefer face-to-face contact” (Krakovsky, 2010: 19) but a growing number of studies suggest that traditional forms of teaching such as lectures do not provide an optimal learning experience for students (Eringa and Hui-Ling, 2009; Tempelhaar et al., 2009; Rienties and Grohnert et al., 2011).

Thus the literature puts forward three overarching ideas; that opinions are divided about using technology for teaching; that technology is irrefutable for international collaboration and for preparing students for the future job market; that HEIs are under pressure to internationalise in order to achieve competitive advantage, and ultimately to improve their ranking. It follows that technology is sine qua non for developing synergy within the Franco-Russian partnership … but there exist a number of intangible factors to take into account. Comparatively little has been published as a cross-cultural study about how HEIs in non-English speaking communities are coming to grips with introducing technology-enhanced teaching. This is an important point. It raises the issue of technology awareness across different cultures and linguistic communities. It is useful to bear in mind that age, gender and other unknown external factors may influence preferred teaching styles.

The Russian context

Kortunov (2009) states that the specific feature of Russia has always been the imbalance between an excessively strong state and a profoundly weak society which continues to influence the whole system of higher education in the country. There is a lack of a clearly determined national policy within Russian higher education, in addition to the relative weakness of market mechanisms in the national economy at large and in education especially (Bain et al., 1998; Ofer and Polterovich, 2000). Even before the Communist revolution of 1917, there were few universities and the geographical mobility of the population was low: “the Soviet Union applied the planned economy principle to all levels of education - from kindergartens to postgraduate studies; today the country cannot yet claim to have overcome the Soviet legacy” (Kortunov, 2009: 204). Higher education institutions in Russia still have to interact with state bureaucracies for funding, standards and legitimacy. They are financially “struggling for survival” (Verbitskaya et al., 2002: 281). The state continues to play a central role in licensing, accreditation and general oversight, even for the emerging private sector in higher education. Within the Russian educational community, this dependency is considered a burden and many universities strive to achieve greater autonomy from state bureaucrats. Given that “the continuity of the old political class transformed into an economic elite” (Burawoy, 2001: 1112), higher education in Russia today can be described as a combination of both Soviet and post-Soviet traditions (Ofer and Polterovich, 2000); still very hierarchical (Panova, 2008) but with a new orientation towards commercial gain (Magun, 2009) though nevertheless elitist (Timoshenko, 2011).

In the 1990s, the regime was reinforced by the transformation of the elite from the Soviet era into a powerful agent influencing both the pace and direction of change, with a vested interest in the preservation of the post-socialist regime (Kryshhtanovskaya and White 1996). Many ‘institutional lock-ins’ were created whereby “the state of one institution is influenced by the state of that institution at a preceding time” (Kalantaridis 2007:437), for example, the conflict today between the labour market (the need for qualified
specialists is not high) and the growing trend to study at university (most families in Russia want to send their child to university) (Khvatova 2011). There is conflict between the quality of teaching and the price paid by parents for their children’s tuition. Increasingly, universities are becoming institutes of socialization where people come to spend time, thus avoiding entering the job market or escaping military service. The period of transition is complex; modernizing the system is now a national priority (Babkin and Khvatova 2010). Various steps have been taken to modernize the system including internationalisation through the Bologna process, plus the introduction of technology for teaching, in order to compete with other institutions worldwide (Timoshenko and Adhikari 2009).

The Bologna process enabled Russia to integrate into the West-European education system. Putin (2004) stressed that it would not decrease the high standards of education that they had during the Soviet time. More realistically, “Russia has to be pro-active, to define its interests, to evaluate the attendant risks and costs, and to map out the practical policies” (RECEP, 2005: 21). Russian universities need to develop new skills and knowledge at every level - personal, professional and development competencies (Saginova and Belyansky 2008) to compete internationally.

Educational technologies in Russia have emerged in a variety of projects (Bold et al. 2008:18); often with western university partners but much more is needed to modernize the current system so that teachers and students can interact on the same virtual platform. Concerning technology at SPbSPU, Moodle is used by some teachers for posting materials but it is perceived as an optional facility. Teachers deliver oral lectures just as they did 50 years ago, the only difference being that some teachers now use PowerPoint. Students have to be present at lectures - attendance is monitored. Teachers complain that the students are disconnected from the class, engrossed in their i-phones and laptops. The teacher is alone and the students neither interact with each other nor actively engage in learning. This situation calls into question the effectiveness of current teaching methods.

In the partnership between SPbSPU and IDRAC, what scope is there to learn from each other in the use of technology for teaching? The work of Batjargal (2007) describes Russia as a high relationship-oriented culture where an individual defines oneself in relation to others and where relationship often matters more than rules in decisions. France, on the other hand, is low relationship-oriented where individualism prevails and where decisions are guided more by institutional rules than relationships (Batjargal et al. 2009). Culturally different, each institution has best practice, knowledge and experience to share.

The French exception
A study by MENESR (2006) -ministry of higher education and research in France - found that many French higher education institutions (including IDRAC) currently lack the pedagogical approach and requisite skills for using a technology-enhanced learning. The problem concerns motivation as much as management (Paquette 2012). Teachers need to change from the habitual teaching style in France based on an authoritative relationship where the teacher dispenses knowledge to the students.

The French education system remains extremely discriminatory; a handful of prestigious institutions educate the elite, to the exclusion of the lower echelons of society who desperately lack resources to compete (Naszalyi, 2010). The system is not geared up to an open learning approach based on sharing knowledge. Changing the institutional culture seems relatively slow in the French cultural context; educational reforms are met with unbending resistance. To prepare for change, a national debate was held in 2006 to discuss the future of higher education in France. The focus was on reducing student drop-out rates, curriculum choice, improving professionalism, sustainable development, creating business partnerships and the evolution of higher education. However, technology-enhanced education was not on the agenda. Over five years later, professional bodies such as INRP - institute of teaching research in France - are currently advocating the integration of social media in the curriculum.

Concerning technology provision at IDRAC, the e-campus (http://ecampus.idraclyon.net) is used for posting information and course documents. Spiral, an e-learning platform developed by a local Lyon university, offers a significant range of collaborative tools but many staff ignore its existence. At the time of writing, there is no clear strategy in place to use the technology, although it is acknowledged that technology-led teaching plays a fundamental role in higher education today.

In the case of SPbSPU and IDRAC, many individuals seem unaccustomed to using digital technology for teaching; although both institutions recognize the importance of developing online resources. What is preventing more teachers from adopting technology-led learning?

Methodology
Following the literature review, a series of interviews were conducted between July 2011 and January 2012 with teachers in SPbSPU and IDRAC. The interviews were not produced with the intention of generalizing across different national contexts; they provide a snapshot of the current teaching environment in each institution. The
interviewees are teachers of international business programmes. They were invited by email to participate in the investigation and share their experience of using technology for teaching. At IDRAC, 7 individuals came forward, compared with 8 individuals at SPbSPU. Although anonymity was guaranteed, over 50% of faculty involved in this program declined to participate.

Five broad aspects were discussed in the interviews: the respondents’ first experience of introducing technology in the classroom, how technology is currently used, the positive aspects of using technology, any aspects that have never been tried, and any activities that the respondent would prefer NOT to perform using the technology. The interviews lasted between 45 and 60 minutes each. The responses were then transcribed. Acknowledging the work of Basit (2003) which emphasizes the intuitive dimension of qualitative research, the analysis of the data was undertaken by the researchers - instead of electronically - in order to gain a deeper understanding of the situation and to continually refine interpretations.

Limitations
Given the small sample size and the qualitative approach used in this exploratory study, caution needs to be exercised when interpreting the data. Generalizations have to be avoided. The study focused on a specific cross-cultural context (Russia and France) within an undergraduate business programme. The findings should not be applied to other levels of study, national contexts or disciplines.

Findings
A number of themes emerged from an analysis of the interview data. The responses can be classified into the following broad domains: key successes, greatest challenges, teacher learning, i.e., skills, knowledge, resources, how teachers used new technology to change classroom practice, benefits for students, and areas that need strengthening.

The availability of Moodle at SPbSPU and Spiral at IDRAC did not trigger a spontaneous uptake. Respondents spoke of low attendance at the training sessions. It seems that teachers prefer using various popular online sites and tools to communicate interactively with students. Those who make use of technology for teaching - the trailblazers - claim to be self-taught. It can be deduced that lack of interest and technical skills may explain the low uptake of the institutional platform. This is one of the key findings of the interviews.

A second observation was that faculty share a common ‘positive’ approach to using technology for teaching. Participants at both institutions reported a broadly successful experience of interacting with students, once the initial technical problems were resolved. Yet disparity was also noticed. Responses illustrated latent discontent that the platform in SPbSPU is available only for faculty under the age of 45; it is the unwritten assumption by management that older faculty are expected to retire at 55 years old and are therefore unable to provide a sufficient return on investment.

The final observation was that participants acknowledged the time-saving aspects of interactive technology but then expressed concerns about three specific issues: ‘setting the tone’ for the correct use of the technology, the infrastructure that needs to be in place for faculty to adopt technology for teaching, plus the need to continue teaching other basic skills - reading, writing, communication and analysis. Above all, participants were concerned that students need to be able to use the technology intelligently and critically in order to succeed in today’s workplace. The technology is not to be considered as a finite entity; it needs to be integrated into the specific culture of each institution.

Discussing the limitations of using technology for teaching, various comments were put forward by participants when describing the frustration caused by technical problems: “with each new innovation, the chance of things going wrong multiplies”. The tutor is often left to resolve time-consuming issues such as computer access, log-on, broadband problems, forgotten passwords and so on. Another issue is that students are not as techno-literate as they would like to appear. There is the risk of overestimating their ability and resources. These comments highlight some of the obstacles and concerns experienced by faculty. In the context of French higher education, there is the factor of uncertainty avoidance to be taken into consideration too. Culturally, there is a low tolerance to risk-taking; any uncertainty is usually avoided. This reticence is also present in Russia but to a lesser extent. By far the biggest hurdle will be to change the pedagogical culture and then build trust in a new approach to learning. Students need to learn how to take responsibility for learning and sharing information among peers. Teachers need to relinquish direct control in order to build learning communities. This is a new way of thinking for teachers in Russia and France.

Based on responses given by participants, the analysis of the interview data suggests that the adoption of technology-led teaching is a complex process, involving challenges at different levels across the institution. More research is needed, particularly research with a wider population involving student comments. What can be said so far however is that faculty need to be convinced of the benefits of using digital technology for teaching; they are unlikely to adopt technology in response to a trend. Both faculty and students will only adopt new tools if they perceive them as being useful and meaningful for the task at hand.
The most striking observation is the fact that respondents at IDRAC preferred to invest time in developing resources using social media, blogs and wikis - rather than adopting the school platform Spiral which was described as being ‘cumbersome’ and ‘not ergonomic’ by certain respondents. At SPbSPU, the most popular attitude expressed by respondents was that if additional money was offered for implementing the platform into teaching, then every teacher would do it - despite the fact that most people think it is not compatible with traditional pedagogy and the current students enrolled. Above all, it is highly unlikely in Russia that a teacher would ever post un-published or updated materials onto a platform for fear of plagiarism, irrespective of attractive incentives such as additional payment.

After the interviews, several participants at each institution used this opportunity to discuss the wider academic issues of using technology for teaching such as; should teachers deliver what they think today’s students expect - interacting through social media - or should students be trained in the basic skills that they seem to no longer master, such as listening to a person, understanding human interaction, focusing attention and gathering information they hear (not only read), being able to speak and discuss face-to-face? How can teachers design curricular to deliver the right balance of basic and technical skills in order to produce active citizenship and employable graduates? While this enquiry did not set out to provide solutions to such issues, these questions reflect mounting concerns about contemporary learning styles. Attitudes to using technology for teaching reflect a certain level of commonality between the two institutions, suggesting that technology can provoke homogeneity in teaching practices by reducing some of the cultural differences and language barriers.

Conclusions and implications
Modern technology provides scope for truly collaborative work between SPbSPU and IDRAC but it seems the resources are being underutilized, reflecting lack of awareness, lack of knowledge, lack of incentive to learn and/ or lack of willingness to adopt new technology. The findings point to a number of issues that need to be considered prior to raising awareness of technology-led teaching and for encouraging people to use it. In particular, the two most frequently cited issues seem to be ‘building trust’ and ‘acquiring technical skills’, plus ‘financial incentives’ to implement new teaching methods and ensuring ‘data protection’.

Participants spent time airing concerns about the security of information online, particularly information that has not yet been published and could theoretically be plagiarized by another colleague. Teachers need to feel reassured that the materials they place online will be safe, inferring that greater trust needs to be established. The spirit of ‘sharing knowledge is power’ is perhaps not as widespread as technology enthusiasts would like us to believe.

It would seem that there are many complex barriers to using this type of technology; including the effort required to learn a new way of delivering academic information plus the sheer volume of work required to convert current teaching materials into the correct format to use on the platform, time spent learning new skills and developing compatible materials means that other areas of academic work are being neglected. As a result, many teachers have avoided the challenge of adopting a new pedagogical platform by exploiting popular, user-friendly technology such as Jing, MailVu, Scribd and Dropbox. Various other reasons were given for the slow uptake of technology including the need for round-the-clock technical support, additional training in technical skills and financial recognition for adopting new tools. These responses underscore the huge investment that is necessary to bring about change in teaching culture; not merely a change in methodology but also a change in mentality. Installing the technology is not enough for people to want to try it. Even when the technology is freely available, faculty need to be nurtured into embracing it. Efforts need to be concentrated on developing a positive attitude to using new technology; top-down (commitment from senior managers) and bottom-up (incorporating ideas from users). Acquiring a positive experience of using new technology is vital for the effective dissemination of good practice amongst faculty at SPbSPU and IDRAC.

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Managing Communities of Learning: The Impact and Role of Facilitators

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Abstract: Communities of Learning (CoL) have become a popular methodology for organizational training initiatives (Rehm, 2009). While such communities allow employees to collaboratively upgrade their knowledge and skills, they also enable participants to get in touch with colleagues from all over the world (de Bruyn, 2004). Nonetheless, in order to become an effective educational resource, they also need to be cherished and protected (Paloff & Pratt, 2003). Yet, previous research has largely neglected the impact of facilitators on CoL for working professionals. The present study addresses this lacuna by conducting an exploratory examination on the role of facilitators in CoL of a global training program for an international organization. Our results indicate that working professionals generally do not seem to require much stimulation from facilitators to participate in discussions. Moreover, we find evidence that participants consider the input of facilitators as an added-value to the discussions, rather than a replacement for their own contributions. By addressing these issues, our study can serve as a springboard for facilitators to design and implement an effective teaching strategy for similar CoL in the future, thereby contributing to the overall quality of participants’ learning experience.

Introduction

Technological revolution permeating the global economy has changed the way in which people approach learning activities. The advent of the Internet has been followed by the proliferation of Web-based communication tools such as e-mail, e-mail-based discussion lists, bulletin boards, and audio-visual, as well as text-based computer conferencing. All of these instruments are manifestations of computer-mediated communication (CMC), which is an umbrella term covering all sorts of communicative transactions occurring through the use of two or more networked computers (Walther, 1996). CMC has quickly become the focus of many organizational training initiatives. Out of the $ 90 billion expenditure of the training industry in 2009, $ 20 billion were spent on online workplace learning, and this market is estimated to be worth € 40 billion by 2012 (Garavan, Carbery, O’Malley, & O’Donnell, 2010). The development of Internet-based training (Bassi, Cheney, & Lewis, 1998) can be indicative of increasing credentialism of multiple professional fields. Wikeley and Muschamp (2004) argue that while in the past practical knowledge gained through experience was sufficient to maintain a job or obtain a promotion, nowadays a certificate or an accredited qualification may also be needed. Because traditional training courses carry high costs such as travelling expenses, opportunity cost of an employee leaving the workstation and tuition fee, online learning initiatives have emerged as a money- and time-efficient alternative.

In this context virtual Communities of Learning (CoL) have attracted a growing amount of attention. CoL are defined as groups of people who meet online to engage in “collaborative learning and reflective practice involved in transformative learning” (Paloff & Pratt, 2003, p. 17). Rehm (2009) suggested that CoL are particularly suited for training activities within organizations. Firstly, CoL are organized around formal learning activities. Discussions follow a course curriculum and participants are provided with learning materials and concrete tasks to work on. Secondly, the content of participant contributions is verified before it becomes part of legitimate knowledge. Finally, CoL are managed by facilitators, who play an active role in fostering the learning process of participants. Taken together, CoL can support the development of personal and professional skills (de Bruyn, 2004). This is why (globally dispersed) organizations increasingly turn to CoL as a promising methodology for training their employees (Shrivastava, 1999).

The growth in online learning communities, such as CoL, calls for an investigation of the conditions for their effectiveness. In particular, it is important to know how such communities can be supported to provide participants with a valuable learning experience and for organizations to achieve envisioned learning outcomes. In most online communities, learning occurs through asynchronous computer conferencing (ACC). This enables participants to cooperatively partake in electronic discussion forums about a common intellectual focus, while not requiring them to be online at the same time (Gunawardena, Lowe, & Anderson, 1997). The design of this approach implies that working professionals can decide for themselves when to contribute to the discussions. This freedom of participation implies a risk of community members drifting apart. Consequently, it can be
stipulated that there is a need for some guidance on desired cognitive and social behaviours. It follows that CoL require some sort of facilitator who will provide opportunities for social, as well as content-based interactions (Allan & Lewis, 2006). Online facilitation then emerges as a critical element, which conditions and sustains collaborative knowledge building in CoL (Anderson, Rourke, Garrison, & Archer, 2001). It is therefore of pivotal importance to understand the manifestation and impact of facilitators on knowledge construction within CoL composed of working professionals. In the context of higher education, a substantial amount of research has already addressed this need and even provided recommendations for pre-service facilitator training, as well as the design of online learning programs (e.g. Berge, 1995). However, none of these studies specifically looked at the role of facilitators in stimulating knowledge co-construction in CoL established in the context of working professionals. This observation is consistent with the conclusion of Garrison, Anderson and Archer (2010), who call for more research on the impact of facilitators on online learning initiatives across content domains and target groups.

The present study addresses this lacuna by conducting an exploratory examination on the role of facilitators within a global learning program. More specifically, we will provide empirical evidence on 16 CoL and highlight whether and how facilitators’ behaviour has had an impact on participants’ levels of activity and cognitive achievement. By addressing these issues, this study will provide a valuable contribution to indentifying types of facilitators’ behaviour that foster high levels of complex thinking and critical reflection among participants of organizational training activities. More specifically, the main research question of this study is: What is the role of the facilitator in knowledge co-construction in virtual Communities of Learning for working professionals? By providing possible answers to this question, we can offer a springboard for facilitators to design and implement an effective teaching strategy for such online CoL, thereby augmenting the quality and quantity of the underlying learning process.

### CoL in Organizational Learning

The notion that knowledge has become the primary resource in contemporary economy has been accentuated in the writings of many academics (e.g. Drucker, 1993). In this climate, it is imperative that organizations and their staff update their knowledge on a continual basis. This process of knowledge renewal is commonly known as learning (Rosen, 1972). Recent advances, like the development of CMC, have provided the possibility to support such learning in a virtual space. It is important to note that the growth of CMC coincided with a paradigmatic shift in the approach to adult learning. Up until the 1980s, the dominant way of thinking about adult learning was in terms of a psychological process which took place in the head of an individual and was triggered by the transmission of easily transferable content. Since then, attention has been increasingly shifting to the social nature of learning as a process of negotiation of meaning and co-construction of content, occurring via the assistance or presence of others (Jones & Issroff, 2005). This development has had implications for CMC in terms of a more widespread use of different kinds of online communities.

Of growing popularity in this context are CoL, which constitute groups of people who engage in collective enquiry, collaborative learning and reflective practice with the purpose of enhancing their personal knowledge and applying this knowledge effectively in work situations (Palloff & Pratt, 2003; Shrivastava, 1999). As an online training methodology, CoL do not require employees to take time off work or travel to distant locations. They do, however, allow them to upgrade their knowledge and come in contact with foreign colleagues to exchange international experiences and insights, supporting the development of personal, people and professional skills and competencies (de Bruyn, 2004; Rehm, 2009). Consequently, CoL are of particular appeal for employees of large, international organizations, as they can learn together and form social networks with other professionals in their field, as well as benefit from the exchange of ideas and resources without taking time off work (Preece, 2000). Reading the contributions of the peers exposes participants to manifold perspectives and encourages the deepening of own understanding and knowledge (Gunawardena, et al., 1997). What is more, the possibility of building on statements expressed by other members can result in the practical co-construction of knowledge through the combined effect of reflection and interaction (Sengupta, 2001).

However, social processes such as collaboration are more difficult to access when individuals communicate via computers, as opposed to face-to-face meetings (Jones & Issroff, 2005). Even more so, CMC does not automatically result in collaborative knowledge construction. Instead, several aspects need to be considered when setting up and implementing activities like CoL. One such factor, and an inherent feature of CoL, is facilitator support. It includes the provision of technical and social assistance, and the fostering of constructive discourse to meet learning goals (Preece, 2000). It is important that providers of CoL know how to organize the facilitation aspect of an online training program, so as to achieve the highest possible learning outcome for its participants.

### The Role of Facilitators in CoL

Online learning communities must be cherished and protected in order to become an effective educational resource (Palloff & Pratt, 2003). In other words, there is a strong need for facilitators’ involvement (Anderson, et
Facilitators’ Message Content and Participants’ Activity

In asynchronous discussions, online facilitators can take part in shaping the content of a discussion and thus be involved in participants’ process of knowledge co-construction. More specifically, messages of both social (non-task-related) and cognitive (task-related) nature can play a role in eliciting certain reactions among involved participants (e.g. Mazzolini & Maddison, 2003; Woods, 2002). In contrast, other studies indicate that limited participation on the part of facilitators can reduce the quality of learning outcomes and jeopardise the social dynamics of collaborative learning (Jones & Isroff, 2005). Similarly, Paloff and Pratt (1999) suggest that frequent facilitator contributions can stimulate higher participant involvement. The authors maintain that it is the duty of an online facilitator to act as a cheerleader of online discussion, for example by means of commenting on participants’ messages. This claim is supported by the empirical findings of Vonderwell (2003), who found a positive effect of high facilitator activity on the overall number of participant postings. Based on these supportive findings for the notion of sage on stage, we formulate our first research hypothesis as:

H1 – The level of facilitator activity is positively related to the level of participant activity within CoL.

The Impact of Facilitators’ Activity on Participants’ Activity

According to Cho, Stefanone and Gay (2002), facilitator activity is one of the key processes involved in successful, or unsuccessful, participant interaction. Moreover, even though participation is not a direct measure of learning, it is crucial if online discussion activity is ever to result in learning (Dennen, 2005). Generally, it has been established that the visibility of online facilitators can vary along the continuum, from that of sage on stage through to guide on the side (Mazzolini & Maddison, 2003). According to some research, the guide on the side is the desired mode of facilitator activity, on the grounds that too much instruction may reduce interaction among participants (e.g. Mazzolini & Maddison, 2003; Woods, 2002). In contrast, other studies indicate that limited facilitator involvement in the part of facilitators can reduce the quality of learning outcomes and jeopardise the social dynamics of collaborative learning (Jones & Isroff, 2005). Similarly, Paloff and Pratt (1999) suggest that frequent facilitator contributions can stimulate higher participant involvement. The authors maintain that it is the duty of an online facilitator to act as a cheerleader of online discussion, for example by means of commenting on participants’ messages. This claim is supported by the empirical findings of Vonderwell (2003), who found a positive effect of high facilitator activity on the overall number of participant postings. Based on these supportive findings for the notion of sage on stage, we formulate our first research hypothesis as:

H1 – The level of facilitator activity is positively related to the level of participant activity within CoL.

Facilitators’ Message Content and Participants’ Activity

One criticism of online learning is the absence of non-verbal and paralinguistic cues which help to express emotions. Some researchers (e.g. Rice & Love, 1987) maintain that virtual learning communities lack the richness of face-to-face interactions, such as the opportunity to smile at group members, which can hinder participation. In order to counter these perils, facilitators can engage into behaviours that compensate for these limited audio-visual cues. For example, facilitators could also use salutations, address the participants directly by their first name, refer to the group as ‘we’, ask learners to introduce themselves to the peers and promote further exchanges of personal information (e.g. Stacey, 2002). Engaging in informal off-the-topic chat-chat, for example discussing hobbies, may also serve to establish good rapport. All these activities can make participants of a CoL feel like insiders, rather than outsiders and foster a more active participation among learners. These considerations have been empirically tested by authors like Iorio, Taylor, and Sturts-Dossick (2011). In their study of project networks, they were able to show that facilitators are most effective in increasing the number of communicative connections among participants when they engage extensively in activities devoted to developing rapport and cultivating a sense of belonging to community among participants, rather than in activities directly related to the task. Consequently, we formulate our second research hypothesis as:

H2 – The number of social (non-task-related) messages posted to a discussion forum by facilitators is positively related to the overall level of activity among participants.

Facilitators’ Message Content and Participants’ Message Content

The importance of facilitator involvement in the discussion of course content has been illuminated by Veldhuis-Diermanse (2001, as cited by de Laat, Lally, Simons, & Wenger, 2006). In her research on the role of online facilitators in computer-mediated collaborative learning environments, she found that facilitator assistance with course content encouraged participants to engage in a lot of discussion, to react to each other’s postings and to bring in additional information to the debate. Nonetheless, the constructivist perspective on learning assumes that in doing so the facilitator must be careful to guide the learners from the side rather than construct the knowledge for them (Veerman & Veldhuis-Diermanse, 2001). Similarly, a recent study by Iorio and colleagues (2011) showed that high facilitator involvement in task work tends to reduce the total number of communicative connections between online learners. This finding implies that the provision of content-related answers discourages the participants from delving further into the topic, and instead pushes them toward surface-learning behaviours. In addition, Vonderwell (2003) argued that facilitators should abstain from giving content-related feedback which provides quick answers to questions asked. We therefore hypothesize:
H3 – The number of content-related (task-related) messages by facilitators is negatively related to the level of content of participants’ messages.

Methods

Setting
The present study collected data from an online training program that was provided for members of a large international organization. The purpose was to enhance the participants’ knowledge in the general field of Economics. The course was undertaken by 210 participants from 81 offices located worldwide. All content materials and collaborative learning activities were hosted by a virtual learning environment. The main element of the program consisted of 16 CoL, each consisting of 10 – 15 randomly assigned participants. Within these CoL, participants collaboratively discussed real-life tasks via asynchronous discussion forums. Each of the five content modules had a separate task and discussion forum. Participation in these forums was obligatory and taken into account for determining participants’ performance. Two academic staff members were assigned to each CoL. While one facilitator was mainly responsible for grading participants’ contributions and facilitating discussions, the second facilitator largely took care of any technical and procedural questions. The facilitators were trained in working with online discussion groups and received elaborate guidelines and answers keys for all training activities. In addition to the obligatory, content-driven discussion forums, each CoL also had its own Café-Talk forum, where participants could socialize and exchange private information.

Participants
Featured in the present study are employees of a large international organization. The online training was initially undertaken by 210 participants from 81 offices, who were randomly assigned to the 16 CoL. However, due to participant withdrawals from the course and incomplete data sets, only 149 participants were included in the data analysis. Among them, the majority (53.7%) were female. The average age was 44.1 years (range 29 – 57). 67.6% of individuals held a Master’s degree, 18.2% had completed a PhD programme, 8.8% had a Bachelor’s degree and 5.4% held other degrees from domains such as Engineering, Health Science, and International Law.

Instruments

Activity Levels
The present study defines the level of activity within CoL as the quantitative contributions within discussion forums, measured by the amount of individuals’ threads (e.g. Strijbos, Martens, Prins, & Jochems, 2006). This approach provides valuable insights into the interaction patterns, without interrupting the actual learning process (Zembylas & Vrasidas, 2007). The data was determined on the basis of user statistics from the discussion forums. This provided the input to compute the cumulative scores for the overall level of activity in the CoL.

Content Analysis
Content analysis was used to uncover the content of facilitators’ and participants’ messages. Each individual message was subjected to a coding instrument that was first developed by Veerman and Veldhuis-Diermanse (2001) and subsequently validated and extended by Schellens and Valcke (2005). The instrument distinguishes between non-task-related and task-related contributions. Non-task-related refers to contributions that can be coded as Planning (e.g. establishing rules for the progress of the discussion), Technical (e.g. issues concerning the use of the virtual learning environment), Social (e.g. acknowledgement of each other’s contributions), and Nonsense (e.g. messages related to issues such as weather and hobbies). Task-related contributions consist of New Facts (e.g. reference to data findings), Own Experience and Opinions (e.g. sharing professional experience on the topic), New Theoretical Ideas (e.g. definitions of domain-specific terms and methodologies), Explicitation (e.g. refining information shared before) and Evaluation (e.g. combining and critically discussing previous contributions). For the task-related contributions, increasing levels of higher-order thinking and cognitive achievement are assigned to participants’ messages, with New Fact representing the lowest and Evaluation constituting the highest attainable level.

Choice of unit of analysis
In line with Henri’s (1992, as cited in de Wever, Schellens, Valcke, & van Keer, 2006) argument that a single message can contain more than one theme or idea, the unit of meaning was chosen as the basis for the coding in this study. This approach has been adopted by many scholars, as it addresses the limitations of fixed syntactical units, such as a sentence, a paragraph, or a complete message, which run the risk of ignoring meaningful aspects of a communicative construct (e.g. Rourke, Anderson, Garrison, & Archer, 2001). Moreover, Gunawardena and
colleagues (1997) recommend this approach as the most appropriate tool for evaluating the quality of the learning experience and interaction in online discussion groups.

**Inter-Rater Reliability**

In order to ensure objectivity of the content analysis, all messages were coded by two independent researchers. Each coder was trained and given sufficient time to familiarise with the coding instruments. The inter-rater reliability was then determined using Cronbach alpha (α) and Cohen’s kappa (κ). For the latter, it has generally been established that values between 0.40 and 0.75 represent fair to good agreement beyond chance (de Wever, et al., 2006).

**Data Analysis**

All variables were checked for accuracy of data entry and missing values. Preliminary analyses were conducted to check whether the assumptions of normality were violated, using Kolmogorov-Smirnov tests. The results revealed violation of the parametric assumption for some of the tested variables. In order to test our three research hypothesis, we therefore used Pearson’s correlation coefficient (r<sub>P</sub>), as well as Spearman’s rho (r<sub>S</sub>).

**Results**

**General Results & Inter-Rater Reliability**

In total, 3440 units of analysis were coded in the discussions of all 16 CoL. The inter-rater reliability was α = 0.92, and κ = 0.73 (p < 0.01), indicating agreement beyond chance. A slight majority of communication (1731 units of analysis) was non-task-oriented, and the remaining part of communication (1709 units of analysis) was related to task. Out of the 3440 units of analysis, 2206 were produced by participants. For the most part, participant communication was task-oriented (1518 units of analysis), and only a minority (688 units of analysis) was not related to tasks. On the other hand, facilitators sent mostly non-task-related messages. Out of 1234 units of meaning they produced, 1043 were non-task-related and only 191 were content-oriented. The average amount of contributions per participant and facilitator in the individual coding categories are presented in Table 1 below.

<table>
<thead>
<tr>
<th></th>
<th>Participants</th>
<th>Facilitators</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>General</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total Messages</td>
<td>14.81</td>
<td>30.85</td>
</tr>
<tr>
<td>Non-Task-Related</td>
<td>4.62</td>
<td>26.08</td>
</tr>
<tr>
<td>Task-Related</td>
<td>10.19</td>
<td>4.78</td>
</tr>
<tr>
<td><strong>Non-Task-Related</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>“Planning”</td>
<td>1.68</td>
<td>9.58</td>
</tr>
<tr>
<td>“Technical”</td>
<td>.19</td>
<td>.60</td>
</tr>
<tr>
<td>“Social”</td>
<td>2.59</td>
<td>14.45</td>
</tr>
<tr>
<td>“Nonsense”</td>
<td>.16</td>
<td>1.45</td>
</tr>
<tr>
<td><strong>Task-Related</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>“New Facts”</td>
<td>1.18</td>
<td>.35</td>
</tr>
<tr>
<td>“Own Experience and Opinions”</td>
<td>.70</td>
<td>.38</td>
</tr>
<tr>
<td>“New Theoretical Ideas”</td>
<td>.05</td>
<td>.33</td>
</tr>
<tr>
<td>“Explicitation”</td>
<td>7.19</td>
<td>3.03</td>
</tr>
<tr>
<td>“Evaluation”</td>
<td>1.06</td>
<td>.70</td>
</tr>
</tbody>
</table>

**Hypotheses 1**

The result of our correlation analysis between facilitator activity, as measured by the total number of messages sent by facilitators, and participant activity, as measured by the total number of messages sent by participants, yielded a significant result at a 10%-level (r<sub>P</sub> = .47, p = .07). Consequently, we find some preliminary proof that frequent postings by facilitator were correlated with high levels of interaction among participants. However, as the result does not comply with the generally accepted statistical threshold of a 5% probability value, we reject hypothesis 1.

**Hypotheses 2**

Hypothesis 2 stipulated that the more facilitators engage in non-task-related discourse, for example to establish a sense of belonging to the community, the keener the members of CoL would be to increase their participation in online conversations. Our findings from the applicable correlation analysis revealed a medium, positive correlation (r<sub>P</sub> = .42) between non-task-related facilitator communication, as measured by the number of non-
task-related messages sent by facilitators, and participant interaction, as measured by the total number of messages sent by participants. However, the relationship did not reach statistical significance \( (p = .11) \). Non-task-related messages of facilitators therefore did not seem to have an effect on participants’ engagement in online conversations. Consequently, we reject hypothesis 2.

**Hypotheses 3**

Hypothesis 3 proposes that as facilitators give more direct answers to content-related questions, or by themselves providing participants with more solutions to the task problem, participants will respond by reducing their own engagement in task-related communication. To check whether this hypothesis was supported in the context of the present research, we conducted two sets tests. First, we correlated participants and facilitators total number of messages that were coded under the general category of task-related messages. The applicable result indicated that the amount of task-related participant interaction hardly was affected by how many task-related messages facilitators posted in a CoL. There was a small, positive correlation between the two variables \( (r_p = .25) \), but the association was not significant \( (p = .354) \). Second, we considered the individual subcategories task-related messages. Again, participants were not significantly affected by facilitators’ behaviour in four out of the five categories. However, our results indicated that participants’ Own Experience and Opinions messages were significantly correlated with facilitators’ Evaluation messages. Yet, despite this particular finding we have to reject our third research hypothesis.

**Discussion**

While there is an abundance of research on collaborative computer-mediated learning in higher education, this study attempted to provide a better understanding of the workings of CMC in group learning of working professionals. In particular, the focus was on CoL within a global learning program. The goal was to provide insight into the role of facilitators on quantitative and qualitative interaction patterns of participants within these CoL, as indicators of the amount and type of knowledge co-construction.

Overall, we had to reject all research hypotheses. One possible explanation for the deviation of our results from the theorised relationships is greater participative independence of working professionals, as compared with regular students in higher education. The hypotheses largely build upon studies into computer-mediated collaborative learning in higher education. Therefore, we implicitly assumed that working professionals would behave in a manner similar to that of students. However, the present study shows that these findings cannot easily be transferred across target groups. Moreover, working professionals, appear to not need as much stimulation from the facilitator in order to participate in discussions. Perhaps a high degree activity of facilitators is appreciated, but not seen as a crucial determinant of how much working professionals participate in discussions. It is a likely scenario that at the start of the online course they already possess considerable practical expertise, as gained through relevant work experience and do not need as many content-related tips to partake in discussion of tasks (Cho, et al., 2002). Furthermore, they might already possess strong communication, social confidence and networking skills and do not need to be “taken by the hand” to interact with colleagues they have not met before. It might also be the case that they already possess a wide social network composed of acquaintances outside the online training program. Consequently, they do not feel that participation in social discourse is so important, especially that the probability of being physically co-located with course participants in work environment in the future is not very high (Rehm, Giesbers, & Rienties, 2009). Finally, the fact that participants did not seem to significantly react to facilitators’ task-related messages suggests again a greater work independence of professionals, as compared to students. It appears as if professionals are not happily satisfied with ready-made solutions that the facilitator provides them with. Yet, we did find a significant correlation between participants’ Own Experience and Opinions messages and facilitators’ Evaluation messages. On the one hand, this can be interpreted as facilitators combining participants’ input to construct a more coherent picture of the content. On the other hand, this can also be seen as an indication that facilitators rephrase participants’ contributions to stimulate discussions on a higher cognitive level. However, generally, we can stipulate that the vast majority of participants can, and do, think for themselves. Even more so, working professionals seem to enjoy the challenge of partaking in a debate on a high level. Hence, facilitators should increase the overall number of their task-related contributions in the early stages of an online training program to provide momentum for further high levels of task-related discussion.

**Limitations and Future Research**

This study exhibits some shortcoming that should be considered when interpreting the results. First, we did not delve into participants’ perceptions of the amount of newly co-created knowledge. Instead, we used the observed volume of interaction and the content of their contributions as proxies. It would have been interesting to compare the ex-ante and ex-post participant perceptions of their own learning. Second, the variable describing facilitator activity was based on aggregated contributions of both content and technical facilitators. The study did not investigate how content and technical facilitators separately impacted on patterns of participant interaction.
interaction. Third, this study used content analysis to evaluate individual level contributions to online discourse. However, exclusive focus on the content of exchanges among members of communities could have precluded the provision of a detailed insight into online group learning. Researchers like de Laat and colleagues (2007) have advocated the use of a supplementary methodology to analyse group interactions, namely Social Network Analysis (SNA). This technique views the social structure of a community as a network (Nurmela, Lehtinen, & Palonen, 1999) and provides an insight into the extent to which individuals are actually co-operating (Cho, et al., 2002). This methodology also allows identifying the central participants in a social network, e.g. individuals who are centrally positioned to receive and disseminate information, and to check how the number of communicative connections between network members changes when central participants are excluded. It would have been interesting to use SNA in this study in order to find out whether facilitators were indeed central to participant interaction, and whether their involvement in discussions had an influence on the density of the discussion network.

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Scholar-Practitioners: Third Age Learners in Business Education

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Adult learners (‘third age learners’) were once relegated to attending the ‘night school’ of a nearby campus in person if they wanted to continue their education. This is no longer true as noted by several developments: an international conference dedicated to promoting scholarship “emerging through the rapid growth of professional business doctorate programs” (Engaged 2011); recent attention to ‘non-traditional doctorates’ (Pappas, J.P & Jerman, J, eds 2011) and reports in business press such as the Financial Times and Business Week (Bradshaw, 2010; Damast, 2010). Attention to the adult student population in management programs suggests that teaching about business to practitioners presents different challenges for faculty and students than the traditional full-time inexperienced students in undergraduate programs. These challenges include: the potential tension between the norms of academic and business cultures; balancing education among competing demands; faculty expectations and those of learners. This paper focuses on advanced degrees for business practitioners with special attention to the part-time professional-oriented business doctorate and the implications of the differing educational expectations of faculty and students.

Introduction: the Scholar-Practitioner

In the past decade attention to the education of adults (‘third age’) who are business practitioners has expanded beyond the MBA to doctoral programs with a professional focus (Weatherhead; Robinson; Bradshaw 2010). Called ‘Executive Doctorate’ or Doctor of Business Administration’ or ‘Doctor of Management’ these are part-time programs with periodic onsite residencies, some using online learning and continued contact with team leaders, that target senior executives who wish to bring high level research and critical thinking to the changing workplace environment (Weatherhead, Engaged 2011). For their dual focus on the “interplay between theory and practice” these students have been referred to as ‘scholar-practitioners’ (Hebert, R., 2010, p 34).

The increased attention for those with business experience—particularly in the USA—is due to the confluence of demography, business changes and technology. (Archbald, D.2011) With respect to demographics, adult learners (in the USA, those over 30) are an increasing proportion of the higher education population. Kisamore et. al. documented that the growth in higher education enrollments 1975-1994 was due to adults (Kisamore, et al. 2008). A 2010 National Center for Educational Statistics (NCES) study reported that in fall 2009, 46.3% of all post-baccalaureate students were 30 or older. A closer distinction between full time and part time students shows that 61% of part time students were 30 or older. This represents an increase of 20% from 2007 (41.2 %). (U.S. Department of Education, NCES, 2010). An earlier 2007 study of by the Council of Graduate Schools reported that 25% of all business graduate students were over age 40 (Council (CGS), 2007). Continuing change in the business environment has presented professionals with the need to develop new skills as job requirements change or to provide the knowledge to move to other careers (Keeton, Sheckley & Griggs, 2002). With respect to technology, the increased accessibility of education via multi-media and the internet has offered adults a greater variety of educational opportunities—whether locally on site or at a distance. (Allen & Seaman, 2010). The Sloan Foundation has been tracking online enrollments for a decade. The reports show, for example, that 6.1 million students were enrolled in at least one online course in fall 2010, an increase of 560,000 students over the number reported the previous year (Survey Reports, Sloan Consortium, 2011).

The goals of this paper are to: identify key programs and their approaches to professional education at the doctoral level; discuss the different culture and expectations in academic and business which impact teaching about business to adults; offer suggestions for teaching adult business students, particularly those with substantial professional experience. [Note: for purposes of this paper, general comments or data about ‘adults’ refer to those 30 years of age or more; comments about doctoral learners, senior professionals [third age] refer to those 40 years of age or more.]

Doctoral Programs focused on Business Professionals

In spring 2011, “Meeting Adult Learner Needs Through the Nontraditional Doctoral Degree” was the bold title of a special issue of a journal focused on adult education (Pappas & Jerman.2011). Why was this doctorate labeled ‘non-traditional’? According to the editors, there are four characteristics of such programs: 1) students are working full-time; 2) program structure is part-time, in keeping with these students’ professional and other commitments; 3) programs are typically time compressed using online, hybrid or week-end formats; 4) the
primary intention of the degree is the focus on application for practitioners rather than academic researchers. (Pappas & Jerman, p 2).

This development also appears in business education—via doctoral programs for executives intended to “develop scholarly practitioners by focusing on engaged scholarship research into contemporary business and management problems”. (Executive Doctorate). The reason such advanced work is important, as expressed by Robinson College of Business at the University of Georgia USA is that “…today's complex, internationally competitive business environment, organizations require leaders who possess interdisciplinary knowledge, the ability to think in global terms and the acumen to design systems that shape and respond to worldwide and societal trends.” (Robinson).

This sentiment is echoed by Cranfield University (UK), which offers an International Executive Doctorate and Weatherhead School of Management at Case Western University (USA) which offers a Doctor of Management. (Cranfield, Weatherhead)—leaders, along with University of Georgia, of this trend.

A snapshot of these three programs reveals several similarities with respect to purpose, time to degree, major deliverables, and student requirements. With slight variations in wording, the purpose of all three programs is to “develop thought leaders for the advancement of business and society” (Weatherhead); “[make a] contribution to knowledge in the context of practice” (Cranfield); “advance the development and practice of effective organizational leadership” (Robinson). The degrees are 3 year lock-step cohorts or 4 years (Cranfield) with 12 - 20 students per cohort.; the primary outcome is a dissertation which may consist of a series of linked research projects culminating in an integrative thesis or examination of research related to an applied issue. Applicants must have management experience (5-10 year minimum) plus master’s degree in management or related area.

Other part-time doctorates for business professionals are offered at Universite-Paris Dauphine, France(Executive Doctorate); EDHEC (France)-Executive track in Finance (Ph.D.);Lawrence Technological University, USA (DBA); Colorado Technical University, USA (Doctor of Management [5 specialties]); George Fox University, USA (DBA); University of Maryland University College, USA (Doctor of Management + DM in Community College Policy).

While the complete number of students in scholar-practitioner programs is not known at this point, the literature on adult learners and the experience of faculty working with such students points is a reminder that teaching professionals for whom education is a part-time endeavor alongside competing commitments needs special attention.

**Teaching about business to adults**

Working adults, particularly senior professionals, may come to the classroom with a cultural frame imported from their work environment. Like businesses that establish branches overseas from their home country, the adaptation to the new environment requires learning how to manage in the foreign—education--land. This involves new language, as well as a cultural shift. The discord that can arise in higher education can be understood as the tension between academic and business cultures. Not surprisingly, many adult students expect instructors of business and management, above all, to share the workplace orientation.

**Differing Culture and Expectations—Student Perspective**

Working adult students entering the management classroom after many years may have a different cultural frame (Schein, 2004) than the faculty. Such students may not know about norms of traditional academic culture that have guided many classroom experiences for years, such as authority of the instructor to judge student work and run the course independent of other instructors; respect for knowledge and knowing as end goals; and the importance of theory (Borden & Evenbeck, 2007; Merrill, 2001; Philips et al., 2006/2007). Additionally, many expectations that these students carry to the classroom from their work culture may seem foreign to veteran instructors: self-authority, especially for students who are senior level successful managers; consumer-like demand for convenience and accommodation; disregard for theory as non-practical or irrelevant; desire for a high level of uniformity among classes throughout the program(e.g. professor X said my writing was strong); and desire for fast results, such as in returning graded work (Merrill, 2001; Philips et al., 2006/2007). Conflict can quickly arise as instructors operating within one cultural frame encounter students operating within another. According to Borden and Evenbeck (2007), this “expectation gap” between students and faculty has grown considerably over the past few decades” (p. 154) and will continue to widen if not addressed. These differences may manifest themselves as cultural tension as well as reflecting the practitioner-student’s personal tension in balancing education among competing demands.
The tension between academic and business cultures

The tension between academic and workplace cultures can produce unexpected behaviors from adult students, especially senior level professionals. These have included outsourcing assignment completion by hiring editors or statisticians or a workplace staff member; focusing on problem solving or ‘fixing’ a particular situation rather than identifying underlying concepts or ideas that could be applied elsewhere; enjoying group discussions and projects but vehemently opposing group grades; interpreting faculty comments which are critical or a grade less than A as an affront or illegitimate, since they have been supported and rewarded as senior professionals. (Kisamore, et al., 2008). The difficulty for such students, particularly when beginning a program, is to transition from senior leader to student mode.

Adapting some workplace practices into the learning process should assist learners in making the transition. Activities such as teamwork, organizational cases, multi-perspective discussions, use of technology for communication and data searches are examples of ‘mirroring’ approaches which may provide a level of comfort in the workplace-academia transition. (Kisamore, et. al.,p.4) Concepts and theories added to varied real-world situations and identifying the limitations may help students to assess the cases --and restrain their desire to focus on problem solving one case. This approach encourages identifying concepts that could be applied under varied conditions beyond the original case.

The online learning model—which enables adults to be engaged in higher education without having to live nearby or forego employment—further replicates the workplace use of technology for communication and for group work among members at a distance. Moreover, online teams appear to foster very strong relationships, sometimes going beyond coursework, to offer advice about workplace or life issues. Some researchers argue that team based activities help adults realize they are not alone in their academic work and educational goals.(Kisamore, et al,2008). Of course, teamwork can produce conflict and concern that some members aren’t doing their fair share—also a reflection of the work environment! Distance learning enables cross-cultural learning, since there can be a diversity of professionals as well as colleagues with experiences outside the home country.

The commitment to education balanced among competing demands

Adult students have multiple demands on their time--family, job and coursework --that may conflict. Jacobs, writing in the business education section of the Financial Times calls this aspect of education the ‘family business’. (Jacobs, 2012). This means that family issues, such as health of partners, children, parents, or siblings can require sharp attention away from coursework while also trying to complete the workplace responsibilities. Thus, faculty expectations about arrangements with respect to family matters need to have been dealt with early in the study program, to the extent possible.

Another demand occurs in the workplace, where colleagues may not be supportive of intrusions on activities or socializing events; where identifying less obvious key management issues or pointing out planning limitations using concepts, may not be appreciated or even cause resentment. Some students perceive that supervisors assume part-time studies are detracting from work responsibilities, and begin to assess the person differently. A personal note: at my university, it is not unusual to have doctoral students tell us that their employer does not (and should not) know about their studies.

Beyond helping students plan ahead as much as possible by providing course details and deadlines, meeting times at least one semester in advance, these competing demands may also result in requests for extensions, defensive explanations for weak work, proposals for negotiating the situation.

Whatever accommodations are made, these do not mean that the student-practitioner should be given easier exams or a reduced homework load, and that policy needs to be stated openly very early. (Gershuny & Rainey, 2006).

Differing expectations--The Faculty Perspective

For the faculty, maintaining quality and high standards remains constant, regardless of type of student. Faculty expectations involving student quality, timeliness, interactions with peers, and grades need to be clear and consistent. Some argue that there should be “flexibility in meeting course and program requirements” including negotiating test or assignment dates (Kisamore et al., 2008, p. 16). However, in the workplace culture, deliverables are not easily negotiable, certainly not at the last minute. What is an appropriate balance? Indeed, invoking the workplace culture is extremely useful when responding to adult student requests for delay or changes.

Since adults may return to higher education after many years absence, or may have completed their initial learning in another country, their expertise and backgrounds can be diverse: professional lives—private sector, public sector, consulting, in health care, information technology, finance, human resources, etc.; diversity of skills and experience--some are weak (e.g., writing, library research) while others are strong (e.g.,
team leadership, project coordination, public speaking). Both the analytical process and writing would have been developed over many years in the service of their profession. For example, an IT may use his profession’s approach to dissecting literature and writing, at least in the beginning of the program. Faculty responsibilities include feedback on why this student’s approach may not fit the assignment or the course content.

Grading represents another area for tension. Although all students are concerned about grades, adults may be more assertive about both the grade itself and the speed with which the grades are returned. In part, this is because final grades may be connected to employer reimbursements (less and less true at present). In part this is another reflection of workplace expectations transferred to the learning environment. (Kisamore, 2008)

For faculty not used to working with adults, the expectations and style they use may be a replica of one with which they are familiar over many years with younger full-time students. In Merrill’s (2001) study of faculty and adult learners, “Lecturers were asked if they had modified their teaching styles as a result of having adults in their groups. Most had not. ‘Teaching adults does not change my teaching style. I do not see why they should need different methods’” (p. 13). Two studies indicate that some alteration of teaching style is valuable; that is, the most successful adult students participate in a classroom culture that both assimilates some aspects of work and academic cultures and acknowledges the value of the student’s experience.(Borden & Evenbeck, 2007; Kimmel & McNeese, 2006). The contribution of adults, especially those in senior management in doctoral programs, can contribute substantially to the learning environment by identifying valuable professional contacts who could be guest speakers or provide content resources; volunteering to lead and coordinate team work; and providing realistic examples that add significant value to the course.

Teaching strategies

The increasing involvement of adults as students in higher education means that faculty should develop strategies for teaching these students in ways that maintain the standards of the institution and program. Some strategies have been identified by authors in the adult learning field (Bransford et al, 2000) which can be applied to business/management students. Three principles from the work of the Center for Adult and Experiential Learning (CAEL) about Effectiveness and Efficiency for Adult Learners (2002) are of particular value in this context (Keeton, et al, 2002):

- Use “genuine problems as a focal point of inquiry…to optimize the interaction between broadening experience and reflection…”
- “Experience yields explicit… knowledge only if actively reflected upon. Such reflection often occurs best in interaction with peers, instructors, other active questioners.
- “Early and ongoing clarification of goals and the route to their achievement will facilitate learning” (p.6)

Thus, class members’ professional experience with management issues, when matched with concepts and literature can be the context for assessing events and testing ideas. Moreover, the feedback from faculty and especially student-colleagues can encourage re-assessment and further inquiry. Adult learning researchers claim that linking real issues with strong interest by learners enhances their motivation and could speed up learning of ideas (Keeton, et al)

In keeping with this literature, some strategies for teaching scholar-practitioners include:

- Remind students that courses, and the faculty, are independent of each other; that is, there is no requirement or expectation that faculty will replicate the approaches of others;
- set clear standards, articulating requirements early, with periodic repetition;
- provide detailed and frequent feedback;
- establish varied contact methods such as phone, email, and Skype; announce a willingness to communicate with students in evening or week-ends (per appointment);
- use cases that reflect the class’ professional backgrounds (e.g., middle management, CEO, consulting principal);
- use groups as a support system (e.g., cohort models) and not just for project development—this is especially true in courses with an online component or a few week-end residencies; encourage partnering with class members for reading drafts, providing feedback;
- engage the class in issues or problem identification that force application of their experience and links with the literature;
- show students how to use plagiarism detection software since academia frowns upon duplication without attribution.

A serious limitation for practitioners in part-time doctoral programs is that they may not see themselves as connected to the academic milieu, although they are involved in serious coursework. Their dominant identification is the work environment. To alter that single identity, doctoral students in particular should be
encouraged to attend professional conferences—especially since they get the student rate!—to present papers, become reviewers, or comment on others’ presentations which should enable them to also see themselves as part of an academic community: a scholar-practitioner.

End Note
(1)This topic was first presented as a workshop with Dr. Leslie Dinauer at the Academy of Management National Conference (Montreal, August 2010).

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Beyond functional maturity: Learning in later life

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Research shows that a majority of people look forward to retired life (Leeson & Harper, 2008). The promise of more time to do the things they want to do, such as travel and leisure, and spending more time with family and friends, means that they perceive retirement as an opportunity to exert more control over their lives. Later life learning, that is to say learning that individuals pursue in later adulthood (at 50+ years and post-retirement), is one such option for retired individuals and is the focus of this paper.

The socio-economic context of the later life learner has become especially difficult as the world, particularly developed nations, face huge surges in retiring baby boomer workforces in the midst of a global recession (Zaidi, 2007). Meanwhile, there are important societal concerns (however well empirically supported) regarding a ‘greying’ population, including how to deal with a shrinking labour force (von Nordheim, 2004), how to manage healthcare costs (Crystal & Seigel, 2009), and how to ensure that older people have the financial resources and knowledge to maintain self-sufficiency (Lusardi & Mitchellelli, 2007). Equally, individual retirees are concerned with financial self-sufficiency (Hershey, Henkens and van Dalen, 2010) and their health (e.g., Sarkisian, Hays and Mangione, 2002), among other issues.

In light of these concerns and issues, the perceptions of retirees about their learning may seem rather insignificant. For example, participation in formal education is dwindling, with participation rates in the UK for people aged 60 years and over declining by 38 per cent between 2005 and 2007 (Universities UK, 2010). Despite these declining rates, many in later life engage in some form of learning, whether it is formal learning within a higher education institution or learning through more informal means, such as through community-based ‘Universities of the Third Age’. How these learners approach their learning, and what they choose to learn have important implications for some of the deeper societal and individual concerns listed above. For example, do learners in later life approach learning in a way that can aid society (and the individuals themselves) in coping with these concerns and dilemmas? More importantly, are our educational institutions (formal or otherwise) structured in a way that can help society and later life learners respond to these challenges?

This paper will explore these issues using data from a small study of recently retired business school academics. The paper uses a Development Centred Paradigm (DCP) as a theoretical basis for exploring these questions. DCP is an educational model that moves beyond learner-centred and teacher-centred models to focus on a more general purpose of human development (McCuddy and Reeb-Gruber, 2008; McCuddy and Reeb-Gruber, forthcoming). The model emphasises fostering and support of learning based on a learner’s curiosity and interests and developing an engagement in one’s community. The model contrasts starkly with some of the current trends in higher education toward more formal curricula and degree programmes. Therefore, this model presents a useful framework in which to critically analyse the current state of formal and informal opportunities for learning available to later life learners, especially in light of the data collected.

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Support & Help for Academic Researchers by using Information Technology (SHARE-IT)

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Abstract: The present paper will investigate how web 2.0 tools can contribute to the goal of sharing (tacit) knowledge amongst young researchers from different disciplines, and investigate the factors influencing the take-up of such tools. To this end, we will first describe how a Dutch university has addressed this issue by means of a blog that is developed to provide support and help for academic researchers by using information technology (SHARE-IT). Next to providing an overview of the initiative, we will describe how young researchers’ perceptions and attitudes of such blogs can be assessed. Based on the seminal model on unified theory of acceptance and use of technology (UTAUT) (Venkatesh, Morris, Gordon, & Davis, 2003), we will develop a questionnaire that aims at determining young researchers’ web 2.0 behavior. Additionally, a second questionnaire will be distributed, measuring factors that support or inhibit individuals’ knowledge sharing intentions (Bock, Zmund, Kim, & Lee, 2005). By contrasting the findings with the results of similar research in the UK (Procter, Williams, & Stewart, 2010), we will then be able to provide valuable insights on the way young researchers, across countries, approach and perceive blogs and other web 2.0 technologies.

Introduction

The world of Web 2.0 is ever-growing and increasingly starting to take over territories that have long been dominated by other, more traditional forms of communication technologies. One of the bastions that are yet to be fully conquered are institutions of higher education. However, their defense is slowly being infiltrated and universities are gradually opening up to these new technologies (Churchill, 2011). Simultaneously, a growing demand from within can be witnessed that requires universities to more actively embrace Web 2.0 and (social) software applications (Chong, 2010). In contrast to the older forms of communication, these technologies have the potential to free users from merely consuming information (Churchill, 2011). Instead, both (academic) staff and students are empowered to creatively and collaboratively support their teaching and learning activities (Gray, Thompson, Sheard, Clerchan, & Hamilton, 2010). Consequently, scholars have started to refer to Web 2.0 also as the “read-write web” (Richardson, 2006).

Among all the available Web 2.0 tools and technologies, weblogs (or blogs) have experienced the most rapid growth in recent years. According to Meyer (2010), 83.1 million blogs were available in May 2007. By January 2009, this number had raised to 133 million blogs. However, it is not only the number of blogs that has become sizeable. According to State of the Blogosphere, 900,000 blog posts have been contributed within a single day in 2008 (White & Phillip, 2008). It is therefore not surprising that blogs have been proclaimed to become a “new form of mainstream personal communication” (Rosenbloom, 2004, p. 31, as cited by Du & Wagner, 2006). However, blogs do not necessarily have to be the product of a single individual. “Group blogging”, which is a relatively new phenomenon, has been promoted to foster communication within learning communities (Philip & Nicholls, 2009). Based on the work by Lave and Wenger (1991), blogging can capitalize on the idea of “distributedness”, which stipulates that knowledge not only rest in a single individual, but is spread over all members of a community. By bringing together individuals via (online) platforms such as blogs, organizers of such initiatives can realize the potential gains of what has been termed “collective intelligence” (Chu, Hwang, Tsai & Chen, 2009; Huang, Yang, Huang & Hsia, 2010). With these potential benefits being acknowledged, universities are increasingly implementing (group) blogs in their (extra) curricular activities. However, while numerous studies have provided personal testimonies, few studies have been conducted to really investigate the potential value and user perception of blogs (Meyer, 2010). The present study will present a project that is currently being implemented at a Dutch university. The goal of the project is to create a platform that fosters the exchange of tacit knowledge about enabling PhD research with the help of (IT)-based tools across academic disciplines. More specifically, the project foresee the creation of a dedicated blog that provides (S)upport and (H)elp for (A)academic (RE)searchers by using (I)formation (T)echnology (SHARE-IT).
Academic Tribes and their Common Culture

Academic institutions are increasingly trying to distinguish themselves from their competitors on the basis of their attractiveness for (young) researchers, e.g. doctoral candidates. In order to achieve this goal, universities strive to create an inspiring research climate, providing carefully developed PhD programs that are fine-tuned to the requirements of these researchers. These programs are usually implemented by individual faculties and/or departments (e.g. business economics, health science), each one focusing on the training of domain-specific applications of theory. This is very much in line with the notion of “situated learning” (Billet, 1996; Lave & Wenger, 1991; Savery & Duffy, 1995). At the same time, this also confirms the existence of differences between academic disciplines and the way they approach scholarly activities (Fry, Creaser, & Butters, 2009). Similarly, Bailey (1977) notes that universities are composed of different “tribes” (as quoted in Becher, 1994, p. 151). Especially in an interdisciplinary field such as business studies, such institutional divisions can be counterproductive. However, while highlighting the differences among disciplines, Bailey also acknowledges that there are commonalities. There is a “common culture” linking up the “tribes”. In the context of this paper, we interpret “common culture” as all generic knowledge artifacts and skills that are applicable across academic disciplines. More specifically, this concept can include tools to archive one’s literature (e.g. Mendeley), as well as statistical software packages (e.g. STATA). We stipulate that academic institutions’ research staff possess a vast amount of tacit knowledge about IT-enabled research. Sharing this knowledge with “newcomers” would provide them with valuable tips and tricks. Yet, we believe that this exchange is not sufficiently exploited.

While official PhD programs in business and economics cover some of these skills, to the best of our knowledge, they generally are confined to “scratching the surface” of the available knowledge assets. This claim is supported by a growing perceived “underground market”, where young researchers form unofficial self-support groups that aim at helping with these more generic skills. We believe that academic institutions should pro-actively support these groups by providing them with the necessary platforms and means to facilitate this knowledge exchange – e.g. strengthening the “common culture”. This would not only provide valuable insights on what might be missing from the official programs. It would also enable academic institutions to tap into the tacit knowledge and skills of their young researchers from all disciplines, make it publicly available and showcase their efforts to create an inspiring research climate. Given the great potential of available Web 2.0 tools and technologies, we stipulate that introducing a dedicated blog where young researchers can engage into the exchange of knowledge would greatly contribute to the identification and strengthening of the “common culture” across academic “tribes”.

(Group) Blogging

The term web-log, or blog, refers to a simple webpage consisting of brief paragraphs of different types of information that are called posts and are arranged chronologically with the most recent first, in the style of an online journal (Anderson, 2007). Furthermore, while no sophisticated technical skills are required, blog contributors can easily share a wide range of information, including text, graphics, animations and other types of (rich) media (Churchill, 2011). Additionally, contributions can be “tagged”. This tagging is equivalent to attributing categories, or themes to individual posts. The positive upshot of this is that it permits the author(s) and viewers to easily search through all contributions based on “tags”, which simplifies navigation on the blog. Another interesting attribute of blogs is that visitors can post comments, thereby creating “weighted conversations” (Anderson, 2007, p.7) that encourage visitors to pro-actively provide feedback and suggestions for future posts. This latter characteristic can greatly contribute to the social networking between providers and users of blogs, allowing individuals to locate and contact people who have a shared interest (Huang, et al., 2010).

Generally, according to Campbell (2003), blogs in the context of higher education can be subdivided into three main categories, namely the “tutor blog”, the “learner blog”, and the “class blog”. The tutor blog is simply maintained by an educator, who uses the blog to share information, suggest online resources and encourages students to comment on posts. The learner blog can be run either by an individual student, or a small group of learners. The main intention of these blogs is to provide students with the possibility to share their thoughts on a certain topic, reflect on their learning process, or practice particular writing styles (e.g. journalistic). The class blog, which is closely related to the concept of group blogging (Philip & Nicholls, 2009), is characterized by situations in which a large(r) group of learners collaboratively engage into gathering information, sharing experiences and creating new knowledge. With learning being increasingly understood as an interactive process, where knowledge is being created while collaborating in social networks composed of diverse groups of people (Hakkarainen, Palonen, Paavola, & Lethinen, 2004), this last type of blog has received growing attention among researchers and practitioners alike (e.g. Anderson, 2007; Hurlburt, 2008). Moreover, based on the project’s goal of creating a platform for young researchers to share and exchange their knowledge and experiences on the topic of IT-based tools to conduct research, this blog-type is also the basis for the SHARE-IT initiative.

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SHARE-IT: “From Researchers – For Researchers”
The general structure of the blog will follow the suggestions of previous research (e.g. Chong, 2010; Du & Wagner, 2006) and pay specific attention to the following issues.

Element of Ownership
The SHARE-IT blog is “from researchers for researchers”. Although the blog is initiated in a top-down fashion, this approach merely holds for the initial stage. As of the beginning, the project will actively encourage the participation of the blogs target group (young researchers), by means of suggesting possible topics and indicating preferences with respect to embedded blog services. This type of input will be gathered via online polls and questionnaires, as well as by means of focus group meetings with representatives of the target group. Previous research has shown that by developing such an understanding of the needs and preferences of target group during the early stages of similar activities, has a greatly contributed to the creation of a sense of ownership among participants (Allwright, 2003; Soares, 2008).

Additionally, instead of always the same group of people creating content for the blog, a group of “talent scouts” will be responsible for identifying who possesses valuable information that can benefit an interdisciplinary audience. Once identified, these “talents” are then encouraged to share information, e.g. explain a research tool, free from domain-specific jargon, to allow visitors from various backgrounds to benefit from the contributions. Next to introducing and explaining the applicable item, a key aspect of every contribution will be a practical example of how the tool has contributed to the individual author’s work. On the one hand, this creates a degree of relevance, as visitors can see the practical value and the potential added value for their own work. On the other hand, this creates an incentive for young researchers to contribute, providing them with a platform to share their own experiences, and making them feel a sense of ownership of the blog.

Interaction via Comments
The possibility to leave comments has generally been identified as a pivotal aspect in ensuring the success of a blog (e.g. Churchill, 2011; Meyer, 2010). By encouraging people to comment on blog posts, it is possible to stimulate interaction among a growing community of blog users. While this is an indirect way of receiving feedback, this also adds to the sense of ownership among users. Being able to comment enables them to actively shape the blog, co-determine its trajectory, and also share their own personal knowledge and experiences about the topic of an applicable post. Finally, in order to encourage commenting and to ensure that any started conversations are kept going, all contributors will be asked to start discussions and closely monitor their posts. This can for instance be done by asking various questions within contributions or by explicitly asking for feedback.

(Rich) Media
The contributions to the blog will include items such as how to organize references, as well as how to work with dynamic panel data. Furthermore, in order to develop the applicable resources, potential contributors to the blog will be encouraged and supported to use different type of (rich) media, including interactive presentations, screen recordings and social bookmarking tools to share online resources. The inclusion of such rich media components, has been shown to positively influence user concentration and contribute to user perceived learning outcomes (Liu, Liao & Pratt, 2009).

Linking Virtual and Actual Worlds
Previous studies on the impact of social software on learning have found evidence that combining virtual activities with face-to-face meetings on the same topics have positively influenced the level of activity, as well as the general level of recognition for the activities amongst the target group (e.g. Klamma, Chatti, Duval, Hummel, Thora, Kravcik, et al., 2007). Consequently, the SHARE-IT blog will regularly schedule events and activities that are hosted in the real world. Possible scenarios include, among others, an introduction into a certain topic via the blog, which is then followed up by a workshop-type event in a central location of the university (e.g. the university library).

“Perpetual Beta”
When creating an online portal in a fast changing environment, such as web 2.0, researchers have suggested to adhere to the concept of “perpetual beta” (Procter, Williams, & Stewart, 2010). The basic idea is to stay flexible and never to consider the current state-of-affairs as the final one. Dron (2007) has referred to this as the “the principle of evolvability” (Dron, 2007, p. 65), which refers to the fact that the structures of web 2.0 tools, such as blogs, should not be fixed and capable of adapting...
to new trends and demands. In the context of the SHARE-IT project, this will be achieved by closely following the latest trends in web 2.0, potentially making required adjustments to functionalities and provided services. Additionally, by staying in close contact with the target group, via blog discussions and regularly distributed polls and questionnaires, the blog will also keep a finger on the pulse of whether adjustments need to be made to the structure and content of the blog.

“If you build it, will they come?”

Introducing a blog to foster the (tacit) knowledge exchange between young researchers has many potential benefits. However, does the existence of such a platform automatically translate into the target group actively making use of it? Do young researchers actually appreciate the fact that such a blog support them in successfully conducting their research? In order to answer these questions, our project will assess how young researchers perceive the SHARE-IT blog. Previous research on user acceptance of similar initiatives in the UK has shown that the majority of users are aware of the mediums general advantages (Procter, Williams, & Stewart, 2010). Nonetheless, it has also been suggested that users face considerable hurdles that prohibit them to engage in blogs and other web 2.0 technologies. Among the most commonly mentioned reasons holding back researchers, both in terms of active participation, as well as passive information gathering are a lack of:

- local support and encouragement
- trust in the quality of information
- understanding of how it can benefit them directly

Based on the seminal model on unified theory of acceptance and use of technology (UTAUT) by Venkatesh and colleagues (Venkatesh, et al., 2003), we will develop a questionnaire that aims at determining young researchers’ behavior in the context of web 2.0 technologies. This approach not only allows us to enhance our understanding of how young researchers perceive web 2.0. Using the UTAUT, we are also able to address a shortcoming of pervious research that has largely focused on models like to the technology acceptance model (TAM) by Davis (1989). The model originally distinguished between two different constructs, namely the “perceived usefulness” (PU) and the “perceived ease of use” (PEU). PU measures whether and to what extent users view a new technology as a valuable contribution to better perform an already defined and existing task. PEU captures whether an individual considers the usage of the technology in question to be manageable. Given the model’s simplicity, it not only attracted a lot of attention, but also has been implemented in numerous settings (Liu, Liao & Pratt, 2009). However, researchers like Bagozzi (2007) have suggested that the model’s simplicity is also its Achilles’ heel (Bagozzi, 2007, p. 244), not taking into account group, cultural, and social aspects of technology acceptance. Consequently, by implementing the UTAUT, we are able to address a number of the generally identified shortcomings of the TAM. More specifically, the UTAUT includes constructs as (Venkatesh, et al., 2003, p. 460):

- Attitude toward using technology – e.g. The system makes work more interesting.
- Social influence – e.g. People who influence my behavior think that I should use the system.
- Behavioral intention – e.g. I intend to use the system in the next <n> month

Furthermore, providing a platform to share information does not necessarily equate to an active participation of the target group. On the contrary, although the “talent scouts” might be able to identify “talents”, who have valuable knowledge about a certain topic, the latter group might refrain from openly sharing their insights.

This issue has already been addressed by Fishbein and Ajzen (1975), who stipulated that a certain behavior of an individual, such as for instance the propensity to share information, is first and foremost dependent on that individual’s intention to behave in this way, and that this intention is in turn dependent on the attitudes of that individual to the behavior. In other words, the beliefs held by an individual with regard to certain aspects of the behavior in question are determinants of the intention to carry out this behavior. These beliefs in turn are formed in dependency on a range of external circumstances. Depending on these circumstances, this might lead individuals to hoard their knowledge. Such type of behavior has been addressed by Bock and colleagues (2005), who designed a questionnaire that measures the factors supporting or inhibiting individuals’ knowledge sharing intentions. In more detail, the questionnaire covers constructs including (Bock, et al., 2005, pp 108-109):

- Anticipated reciprocal relationships – e.g. My knowledge sharing would get me well-acquainted with new members in the organization.
- Sense of self-worth – e.g. My knowledge sharing would help other members in the organization solve problems.
- Intention to share explicit knowledge – e.g. I always provide my manuals, etc. for members of my organization.

In the context of the project, this questionnaire will also be incorporated in our efforts to better understand whether and to what extend young researchers are willing to actively share and access information.
via web 2.0 technologies. Finally, we will contrast our findings with the results of Procter and colleagues (2010), who have conducted similar research in the UK. This comparison will not allow us to draw refined conclusions about culture-specific differences between the Netherlands and the UK. Yet, these findings will provide valuable insights on whether there are general differences between researchers in the two countries in the way they approach and perceive blogs and other web 2.0 technologies.

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Flipping the classroom: revolutionizing business education by means of virtual worlds

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Introduction

Virtual worlds share the core characteristics of simulations namely the ability to mimic reality. However, they differ from simulations in that they are persistent: actions continue even if not all players are currently online and allow for geographical dispersed players to interact with each other (Cannon-Bowers & Bowers, 2008). Although virtual worlds are becoming more prevalent, research focusing solely on virtual worlds is sparse. When referring to research in the area of simulations, which closely relates to virtual worlds, it has been shown that authenticity of those environments provide for an increase in learning performance (Cannon-Bowers & Bowers, 2008). Next to authenticity, the level of engagement and immersion those environments create are often cited as a possible explanation of their effectiveness (Cannon-Bowers & Bowers, 2008; Kozlowski & Bell, 2007). However, while these findings are promising, they do not compare a virtual course to a face-to-face course; and therefore provide little evidence for the effectiveness of virtual worlds in increasing the quality of education and thus the knowledge and skills graduates take with them to the labor market.

Since the beginning of the new millennium, several studies conducted by Pekrun and colleagues on emotional experiences in face-to-face classrooms have shown the importance of positive emotional experiences in order to achieve high performance (Goetz, Pekrun, Hall, & Haag, 2006; Pekrun, Elliot, & Maier, 2009). Recent research into emotional experiences of pupils in technology-based learning environments have shown the importance of social emotions and student’s perceived control over the learning activity on their emotional experience (Pekrun, 2005).

The discussion above shows that there is reasonable believe that virtual worlds are an effective learning tool. Pekrun’s research on emotional influences on performance in classroom setting has demonstrated the large explanatory power of this factor on performance. To date it remains unclear how emotional experiences influence performance in virtual worlds and if this learning activity is able to increase student’s performance. Therefore, the aim of this study is to analyze the impact of emotional experiences on students’ performance in virtual worlds compared to student performance in an identical setting taught offline, thereby comparing the effectiveness of virtual worlds as learning tools to face-to-face education.

Virtual world and Second Life

Like for concrete forms of simulation, the value of virtual worlds lies in its ability to provide an authentic replication of reality (Kozlowski & Bell, 2007; Sauvé et al., 2007). The virtual world used in this setting is the web-based application Second Life. In Second Life communication takes place in real time, via chat or voice, offering high levels of immediacy (Wood, 2010). Second Life mimics several tangible aspects of reality, including a real economy, including stock markets, governments and a currency system. A special feature of Second Life in comparison to other virtual worlds is that it allows for multi user online role playing; users can collaboratively create and use in-world artifacts such as text, images, and three-dimensional models, increasing a sense of community among players (Wood, 2010). This creates a persistent character implying that actions continue and the world evolves irrelevant of the presence of specific players who can enter the world at any desired time.

Research has shown that this aspect of immersion is important as it enables players to gain an understanding of the real life environment in which they will operate after graduation and experience the dynamics of a business environment (Kozlowski & Bell, 2007). By means of the unique characteristics of Second Life mentioned before it provides an authentic environment and through this narrows the gap between learning and transfer environment, increasing student’s performance (Belei, Noteborn, & de Ruyter, 2011; Cannon-Bowers & Bowers, 2008; Kozlowski & Bell, 2007). This indicates that implementing Second Life in education increases student performance. However, the possible learning gains of using Second Life can be reduced as students are confronted with a new learning medium requiring certain adaptations in their behavior.

Role of Emotions for achievements

Linnenbrink (2006) defines emotions as subjective experiences that are context dependent. Research has shown that student’s learning process is influenced by the amount of positive or negative emotions they experience (Bruinsma, 2004; Kay, 2008). The control-value theory explains how emotions influence learning outcomes stating that emotions are influenced by the subjective control (the control a student believes to have over one’s
outcome) and value (the importance attached to the learning activity and outcome) students perceive (Pekrun, 2000). These two aspects determine if a student is experiencing positive activating or negative deactivating emotions (Pekrun, 2000). Positive-activating emotions, such as enjoyment, have been found to be positively related to use of deep-level cognitive learning strategies whereas negative-deactivating emotions, such as boredom, functions as a motivational barrier interfering with students ability to learn in academic settings (Goetz, Pekrun, Hall, & Haag, 2006; Pekrun, Goetz, Daniels, Stupnisky, & Perry, 2010; Pekrun, Goetz, Frenzel, Barchfeld, & Perry, 2011).

The conceptual framework describes how virtual worlds enhance learning activities and the importance of emotions for attaining high learning outcomes during such activities. To date, research on the effectiveness of virtual worlds as learning tool is still sparse, however due to its ability to narrow the gap between theory and practice it is suggested that they offer a good opportunity to increase students learning. Therefore, the first research question addressed is: What is the added value of implementing a business course in virtual world compared to an offline course in terms of student performance?

Research in traditional classrooms has shown the importance of emotions on learning outcomes. Therefore, the influence of the learning activity on the learning outcome is influenced by the type and degree of emotions students experience. This leads to the second research question: The emotional experience of students mediates the impact of the learning tool on the learning outcome. The outcome of this research will lend empirical support for policy makers to support their reasoning why or why not to implement virtual worlds in education.

**Instructional Setting**

Two undergraduate courses (course A and B) in brand management offered by a large European university were analyzed. The objective of both courses was identical: Developing an Integrated marketing communication plan (IMC-plan), describing the branding of a self-invented product, within 8 weeks. Both courses contained identical learning activities: 14 small group discussions, 3 lectures and 1 team assignment. Variance between the two courses was based on the method of executing the IMC plan: The team assignment in course A consisted of writing a hypothetical marketing plan of how a company should brand a specific product, whereas students in course B had to create, brand and sell their product in Second Life. The profit teams made wit their product counted towards the final grade. Both courses concluded with student presentations on their IMC-plan.

Note: The data for the face-to-face course is in the process of being collected. The analyses will be conducted in January and will be ready for presentation, and written down, before the conference.

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Tablets in Business Education – Distraction or Different Learning Experience?

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Tablet computers are being considered as a groundbreaking new technology for educational purposes: they command attention both in undergraduate and graduate classes. Large private and government financed projects are underway to provide students with tablets (eg. South Africa with Telefunken Tablet PCs or India Aakash Tablet project) (Gernetzky 2012).

Among the variety of tablet devices, the iPad that started the recent tablet revolution is seemingly ready for prime time. The Chronicle of Higher Education has over 300 articles, blogs and reviews related to iPads in education – approximately 200 of those have been written in 2011. Authors are discussing both the content consumption and content creation approaches (Ward 2011). The availability of these devices also contribute to the discussion: in 2011 over 50 million iPads were sold (Camm-Jones 2012).

In the past decade many new instructional technologies appeared in classrooms, ranging from instructional multimedia CDs to whiteboards, and while the purpose of any new instructional technology should be to improve the learning process (Peterson, Albaum, Munuera and Cunningham 2002), not all of these devices proved to be universally successful. Many of the introduced technologies remained confined to subject areas or specific uses: either because of applicability or cost issues. Tablets differ, however, because of their versatility and accessibility. Optimal use of tablet devices requires adoption and use by both the educator and student. The distraction factor (e.g. social network messages during class time) also have to be taken into account. Thus there is a need to review both the teaching and learning perspective (Buzzard, Crittenden, Crittenden and McCarty 2011). Due to the relative novelty of the technology, there are relatively few detailed papers in academic journals: some concentrate on faculty usage (e.g. Lindsey 2011), while others reflect on the learning process, including collaboration elements (Manuguerra and Petocz 2011; Murray and Olcese 2011). In addition to the above, the literature review revealed that technology adoption models and social cognitive theory discussions are rare in this context (Ratten 2010).

This paper concentrates on the iPad and discusses its adoption and uses in graduate education. As a theoretical basis, the Technology Acceptance Model (Davis 1989; Venkatesh, Morris, Davis and Davis 2003; Venkatesh and Bala 2008), Personal Innovation (Agarwal and Prasad 1998)and Task Technology Fit (Dishaw and Strong 1999)approaches are being used.

The Central European University Business School introduced iPads in graduate classes at the beginning of the 2011/2012 Academic Year. Using a theoretical model, a survey was designed at the beginning of the academic year and completed by participants. As the iPads were used in various situations, we report about best practices and reflect on the the applicability of theoretical models to iPad adoption in educational environment.

The paper discusses implementation issues and training requirements for both faculty and students. Institutional financial decisions may affect the perception of the devices for students and policies have to be defined for usage. Based on a variety of classes, we also list creative approaches and solutions to incorporate iPads into classroom activities. Finally, using our model, we discuss the effects of Personal Innovativeness on usage pattern and adoption.

References


University Culture and Student Learning: Action Research and a Systems Theory Approach to Teaching

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Abstract
This paper is about an initiative taken by a university instructor and a group of graduate students to diagnose teaching and learning that takes place in the university classroom by finding facts about what is appropriate to teach and to learn, and providing an analysis towards planning and decisions about the learning process and how to translate these into strategies for students to learn more effectively. This is a call for universities to rethink their role in methods of teaching by developing new attitudes, new organizational structures and improved practices to match the pace of knowledge increase and exponential growth of information in recent years. I argue that student and instructor activities and learning outcomes are consistent with major theories of student motivation and learning such as social cognitive theory, self-determination theory, attachment theory, and the concept of emotional scaffolding. The paper is organized as follows: 1) examination of the culture of the university; 2) discussion of the origin of the issues; 3) explanation of the action research processes and the roles of the instructor and the students in assuming responsibilities of teaching and learning; and, 4) discussion of how these practical activities are consistent with the major theories of student motivation and learning.

Introduction
The core of teaching ideals that traditional university education promotes focuses on the banking method of knowledge transmission (Freire, 1970) where there is continuous detachment of the relationship between the professor and the student and the rejection of the student’s experiences and knowledge in favour of the more cherished theoretical academic knowledge of the professor during the teaching process. Teaching and learning in universities are considered two separate entities—the teaching for the professor and the learning for the student. Set against this backdrop of method of teaching and learning students as well as their professors are bored in the lecture halls (Gatto, 2003). It is therefore argued that university teaching traditions are often fundamentally deficient in the way they conceive student learning, and that much of the reality of student motivation for learning is lost or misconceived. It is also argued that teaching has often failed to come to grips with the changing role of information technologies and their impact on university students. Clearly, part of the explanation for the setback in the improvement of university teaching lies in the conservative orientation of the university. The virtues or vices of university teaching are not here under discussion. Their only relevance is to illuminate what is possible in motivating instructors and students about the teaching and learning processes and to examine the time honoured traditions that serve as impediments to change in university teaching. This paper is about an initiative taken by a university instructor and his graduate students to explore ways of maximizing student learning through a teaching and learning symbiosis.

The paper is an effort to press for a greater interest in a model for instructor-student partnership in teaching and learning—that is, both instructor and students should be responsible for the teaching and learning processes in university classrooms. This paper describes a teaching method based on practice in which the instructor and graduate students developed the syllabus and equally shared in the teaching and learning processes. First, the paper will look more intimately at time-honoured traditions serving as impediments to change in university teaching and learning. Second, it will clarify how learning and teaching could be made more meaningful to students and their instructors. Third, it will explore some of the major issues in university teaching and illustrate how partnerships involving graduate students and their instructors can lead to symbiotic relationships that will improve teaching and learning in graduate schools. Fourth, several aspects of instructor and student activities that lead to transformational learning of students and professional development of instructors will be examined to illustrate how to develop symbiotic relationships between instructors and students for the improvement of academic standards of students and teaching effectiveness of instructors. Finally, the paper will examine how the processes and activities of instructor and students are consistent with major theories of student learning and motivation. In what follows, my first concern is to attempt to give an overview of the culture of the university in order to guard the gate of understanding to the time-honoured impediments to university teaching.
The University Culture

The title of this paper could have been simply, *How to engage students to take responsibility of their own learning*. If the title had been so simply stated, it is probable that the abstract for this paper would have been too simplistic to be accepted by the abstract reviewers for inclusion in the conference proceedings. According to the culture of the university, the title has to be complex, confusing, difficult to read and elusive enough to be academic (Palmer, 2000). If it is easily comprehensible then it is not to the standards of the university. Palmer (2000) argues that the university regards anything practical and easy to understand as ultimately not an embodiment of worthy knowledge and rationality. Speaking to university teaching in the 13th century, Amiraault and Branson (2006) stated, “University courses were delivered in traditional didactic manner, with the instructor presenting material that the students would assimilate, grammatically analyze, and restate to the instructor via written and oral dialogue” (p. 73). As indicated above, university teaching with its lecture method in the 21st century is not different from that of the 13th century. What therefore serves as an impediment to change in university teaching? From its birth in twelfth century Italy and France to its colonization of the modern developing world, the university maintains an inflexible endurance over time with a stubborn resistance to change in spite of pressures from outside and changes that may be occurring within the university itself (Perkin, 1984; Altbach, 1992). By tradition, the university celebrates particular kinds of intellectual content and certain types of performance in carrying out its missions and strives to remain protected from external interference. The university is unwilling to break the behavioural codes and its cultural mystique built over time. One of such behavioural codes is the way university courses are taught. Furthermore, one of the university’s cultural mystiques is to maintain some form of social differentiation with some forms of knowledge valued or rewarded than others. The degree of such differentiation and its significance for the way knowledge is perceived varies dramatically across disciplines and within academic departments. Moreover, there are many different bases or criteria for such differentiation. One of the commonest criteria for differentiation is whether knowledge has been couched in theory or in practice. Palmer (2000) offers a critique of the seduction of theoretical knowledge as the only real knowledge in the university. As he argues:

> Academic culture holds disconnection as a virtue…Intellectually, the academy is committed to an epistemology, a way of knowing which claims that if you don’t disconnect yourself from the object of study—whether it’s an episode in history, or a body of literature or a phenomenon of the natural world—your knowledge of it will not be valid…For a century and more, we have venerated ‘detached scholarship’ (while disciplines that require close encounters between the knower and the known—art, music, dance, and the like—have been pushed to the bottom of the academic totem pole) (p. 3).

Set against this backdrop of academic culture that passionately loves the detachment of the object from the subject, university teaching consists of a one-way lecture approach. There is the need for a paradigmatic shift in university teaching for teaching and learning to meet the needs of the 21st century student (Agbo, 2010). In what follows, I briefly review the origin of the issues and instructor and student action research processes.

The Origin of the Issues

About a decade ago, I was employed as a tenure-track assistant professor in a university at the west coast in the United States where my schedule required that I should teach an ‘unpopular course’ as a Saturday class that ran from 9:00 am to 5:00 pm for six Saturdays in the fall semester. I was told that the professor who taught the course went on sabbatical leave and nobody on the faculty wanted to teach that particular course. As a novice tenure-track assistant professor, I had no option but to take on the dirty jobs that tenured professors had the guts to reject. When my Dean asked me to teach the course, I immediately accepted. Traditionally my class was designated a “lecture” which simply meant that I was required to lecture graduate students for the whole period of seven to eight hours each Saturday. Thinking through the impossibility of lecturing for that long, particularly on a course that was unpopular with students, I designed an assignment that stated:

> After the introductory part of the course, during which time the instructor will have led discussions in introducing the basic concepts about [the course], groups and individuals will be responsible for preparing, presenting and leading the class in discussions on the readings.

Commencing from Session 3, students will lead the discussions in groups.

I was not sure how well it was going to work giving power away to students to become the instructors. I ran the idea by a colleague who told me that it was a bad idea since the students were not adept in the subject area and that they would not be able to do a good job with the “teaching”. My colleague was totally wrong. The semester came and gone and my Dean found out that student evaluations of my course were unbelievably high so he invited me to the office to find out what went right or wrong with my teaching. The Dean told me that previous students’ evaluation of that particular course carried comments such as, “this is the most boring course in the whole of the master’s program”; “I will not recommend this course to anybody”; “simply, boring!”; and so on.
However, the current student evaluations carry statements such as “this is the best course so far in the master’s program”; I will always take another course from the instructor”; “this’ the best course I’ve taken since my undergraduate years.” A particular statement from the qualitative part of the responses of the evaluations caught the Deans attention. It stated: “The instructor of this course made us to do most of the work. At first I thought it was unfair but now I feel that this is the best course that I have ever taken in my master’s program. It was fun becoming the professor for some time.” The Dean thought that the autonomy and responsibility assigned to the students must have been the cause for the high evaluations of the course. At that meeting I was told by the Dean that, “I have no option but to make you the permanent instructor for this so-called unpopular course.”

Then, years passed and I moved to another university in Canada’s Ontario north where, as soon as I arrived I was confronted by the Director of Graduate Studies to teach the same unpopular course as was in my previous university. The course was also to be offered on Saturdays. This arrangement worked well for me because I did not have to reinvent the wheel but to fall on my previous planning. I planned to develop and teach that course in an entirely different way. This time, the plan was to involve those graduate students who would be taking the course to be engaged in the development of the course, that is, to involve them in the development of the syllabus for the course. The class meetings were scheduled for 7 Saturdays, each from 9:00 am to 5:00 pm. Prior to meeting on the first Saturday, my graduate student teaching assistant spent hours assembling relevant material that was pertinent for the course. The instructor and the students that registered for the course utilized the first Saturday to decide on what should be included or excluded in the course syllabus and also to distribute the chores for leading the class discussions. By the end of the course, the students had expressed their gratitude for having been part of the class. This process was employed for other three graduate courses that I initiated and developed. After the second year of teaching in that particular university, it was found that my course evaluations were so consistently high that I was awarded the “Excellence in Teaching Award”, the most prestigious teaching award in the university. A year later, the Ontario Ministry of Training, Colleges and Universities mounted a campaign to award the best 100 professors in universities and colleges in Ontario through a Leadership in Faculty Teaching (LIFT) Award. The Ministry required five nominators for each incumbent candidate for this award and all five were to write supporting letters on behalf of the candidate. Unknowing to me, my graduate students met together to put letters forward on my behalf. I received a form from the Ministry for completion and that was the time I knew that I was recommended by my graduate students for the award. In the summer of 2007, I obtained the Ontario Leadership in Faculty Teaching Award, given to “the best of the best professors of Ontario” (Ontario Ministry of Training, Colleges and Universities, 2007). The award came with $20,000, a gold pin, and a plaque that states: “In recognition of your outstanding contribution to teaching excellence in Ontario”, and a statement that can be found at the Ministry of Training, Colleges and Universities website:

Seth Agbo has established a culture for lifelong learning in the classroom. He enjoys playing a coach’s role in which he provides opportunities for students to be actively involved in the learning process to make use of their own experience and assume responsibility for their education (http://www.tcu.gov.on.ca/facultyawards/lakehead.html).

In 2011, I have been a visiting professor in the MBA program in a university in Central Asia where I was invited to teach the same ‘unpopular course’ to MBA students. There, I introduced the student-led discussion method where, students for whom English was a third language prepared and led discussions in English. The students indicated that they had learned more than they had thought to learn if I had lectured them during the period. Before I left the university, the Dean invited me to her office to let me know that the MBA students had spoken very highly of the class and that they would be honoured to have me back as soon as possible. I am again teaching as a visiting professor at the university in Central Asia at the time of writing this paper. So, from North America to Asia, graduate students have proven that the best way to learn is to be involved in the teaching. In what follows, I discuss the action research and systems theory approach in context.

**Action Research and Systems Theory Approach in Context**

The action research employed in this context was a process of diagnosing teaching and learning, planning what should be taught and learned, taking action and evaluating the teaching and learning (Saunders, et al., 2009). Instructor and students continually diagnosed the teaching and learning by finding facts about what is appropriate to teach and to learn and to provide an analysis towards planning and decisions about the learning process (Saunders, et al., 2009). The systems theory approach referred to, in this paper, is in accordance with the structural functionalist theory formulated by Talcott Parsons and Robert K. Merton in the 1950s (Fagerlind & Saha, 1989). The two basic principles that guide the structural functionalist theory are, first, society is made up of interrelated components that constantly strive for balance or agreement among the components; and, second, conflict is dysfunctional to social integration and equilibrium. Structural-functionalism suggests that because components of the social system are interrelated by consensus, conflicting values of the different components could cause tension,
and if tension occurs, the parts would try to adjust in order to arrive at equilibrium. Structural-functionalists, therefore, believe that society must conserve its functional aspects, such as agreement and integration, and must avoid the dysfunctional aspects, such as change, conflict, or tension (Fagerlind and Saha, 1989). Contextually, this means rather than separating teaching from learning, and largely detached from the input and interests of the students, a systems theory approach to teaching and learning indicates that processes and activities inside the classroom are strongly determined by the broader interests, beliefs and decisions of the learners. In this context, the system theory approach specifies the university classroom as a learning organization (Senge, 2006).

The partnership in the classroom between the instructor and students and among students is a collective process of learning involving the creative adjustment and innovative responses of students and the instructor by which the student and instructor prepare themselves to learn from one another and the instructor acting as a transformative leader. And by referring to the instructor as a transformative leader, I am adapting Bass’ (1997) concept of transformational leaders. Transformational leaders raise the level of consciousness of organizational members about the essence and usefulness of desired goals and the means of achieving these goals by espousing communal rather than personal interests (Bass, 1997). Transformational leaders also provide members with the opportunity to aspire to self-actualization. The main thrust to the kind of teaching and learning adopted in the present context is to empower students and instructors towards a collective vision of student learning and professional development of the instructors. Systems theory approach to teaching and learning should create ways by which students and instructor would acquire and pass on learning. Put simply, the phenomenon I refer as a systems theory approach to learning is the connection between the instructor and the student that provides strategic leadership for continuous learning. Within the centre of this type of learning is learning opportunities that involve teaching, are continuous, promote inquiry and dialogue, and encourage collaboration and team learning. A systems theory approach to learning creates conditions for special types of mentoring or coaching. In contrast to the traditional instructional methods that stress the notion of ‘the pedagogue’ to whom students must listen and absorb knowledge (Amirault & Branson, 2006), systems theory approach to teaching and learning involve mentoring or coaching that underscores the primacy of interpersonal reasoning and reflectivity by both the instructor and the student.

Thus the common ethos of the system theory approach to teaching and learning in the classroom should consist of a positive attitude towards the academic achievement and professional development of student and professor respectively with the emphasis on building a learning community and a desire for reflective thinking. Therefore, the teaching and learning contained in a systems theory approach to teaching is underpinned by action research that investigates the relations between instructors and their teaching assignments and the elements that influence teaching, transmitting to students the meanings of the elements and thus subjecting students to engagement in effective learning. In short, the difference between traditional university teaching and the teaching and learning advocated in this paper refers to what has been planned for transmitting content knowledge, as opposed to what has not, although the latter is perhaps structured in a form more directly related to contextual and situational circumstances (Agbo, 2003). A striking feature of the symbiosis in the classroom is the building of community of learners in which positive interpersonal relationships and interaction among students and instructor are greatly stressed. A systems theory approach to teaching and learning that is underpinned by action research creates a seamless web of learning from otherness—learning that is induced by teaching, by doing, by collaborating and by action research (Neufeld, 1992).

**Practice into Theory**

Some of the threads that run through the action research and systems theory approach to teaching and learning attach to theoretical meanings of Bandura’s *social cognitive theory* (Pajares & Usher, 2008) *self-determination theory* (Ryan & Deci, 2009), *attachment theory* (Wentzel, 2009) and the *concept of emotional scaffolding* (Meyer & Turner, 2007). In what follows, I briefly discuss how the action research and systems theory processes in the university classroom are consistent with the above theories of student motivation and learning.

**Social Cognitive Theory**

According to social cognitive theory, humans are “self-organizing, self-reflecting and self-regulating rather than as reactive organisms shaped by environmental forces or driven by concealed inner impulses” (Pajares & Usher, 2008, p. 391-392). This view of humans means that they are more capable of self-improvement than depending on external others. Therefore student input in syllabus development and the student-led discussions were in accordance with social cognitive theory that is “rooted in a view of human functioning in which individuals are agents proactively engaged in their own development and can make things happen by their actions” (Pajares and Usher, 2008, p. 394-395). According to Pajares and Usher (2008), the most central aspect of social cognitive theory is its concept of self-efficacy beliefs. They define self-efficacy beliefs as “the
judgments that individuals hold about their capabilities to learn and perform courses of action at designated levels” (p. 395-396). For Hoy, Hoy and Davis (2009) “Self-efficacy is context specific assessment to do something specific” (p. 628). Self-efficacy beliefs predict behaviour more than self-concept or self-esteem and are therefore concerned with individuals’ judgments of their self-worth and what they are capable of doing (Hoy, Hoy, & Davis, 2009). The idea of students leading discussions in groups was also based on the social cognitive theory’s idea of collective agency which states that “People work together on shared beliefs about their capabilities and common aspirations to better their lives” (Pajares & Usher, 2008, p. 395).

**Self-Determination Theory**

There is a strong inborn tendency in humans to be curious about learning and gaining knowledge about themselves and their environment (Ryan & Deci, 2009; Ciani, et al., 2010). However, formal organized learning in contemporary society tries to substitute human learning curiosity “with strategies of external control, monitoring, evaluation, and artificial rewards to foster learning. As a result, learning becomes a chore rather than joy—an activity to be avoided, rather than sought out, at least in the context of schools” (Ryan & Deci, 2009 p. 171). Self-determination theory posits that while people are by nature proactive and possess the propensity to learn and grow in their environment and expand their experiences, social conditions may support or inhibit this inherent learning propensity (Ryan & Deci, 2009). According to Ryan & Deci (2009), people engage in activities that are intrinsically motivating not to gain adaptive learning competencies but to “satisfy deep psychological needs for competence and autonomy” (p. 172). Thus the conception of a systems theory approach where the classroom becomes a learning community that engages students as teachers and instructors as learners introduces the notion of autonomy support that relates in a first-order respect to the intrinsic motivation experienced by the students performing the activities (Ryan & Deci, 2009; Ciani, et al., 2010). Speaking to autonomy support, Ciani et al. (2010) assert that when people perceive their actions autonomous, they become successful in their endeavours and that “research suggests that students reporting autonomous motivation tend to be more engaged in school” (p. 380). A remarkable feature of self-determination theory is the importance attached to intrinsic motivation resulting from autonomy support. The value of students’ intrinsic motivation and persistence at school are embodied in the need for autonomy and competence (Ryan & Deci, 2009). Ciani et al. (2010) consider autonomy support in the teaching and learning concept as one of the most important avenues of paving the way to the intrinsic motivation of students. They assert that teachers can support students’ autonomy by allowing the students to make decisions pertinent to their learning, listening and accepting their opinions and providing justification for routines and procedures if necessary.

**Attachment Theory**

In Wentzel’s (2009) view, student-teacher relationships, that is, the level of positive attachments between teachers and students are crucial in motivating and engaging students in learning and that effective teachers are those that maintain emotionally close and trusting relationships with students. According to attachment theory, teacher-student positive relationships support motivation, social and emotional growth, self-esteem and high academic achievement of students (Wentzel, 2009; Meyer & Turner, 2007). For Wentzel (2009), students that feel secure attachments with their teachers develop self-confidence and curiosity that leads to stronger self-efficacy beliefs of students. A systems theory approach to teaching and learning puts the instructor in an alternative position to the traditional instructor. Although the students recognize and refer to the instructor, the instructor in the systems theory approach does not consider oneself as an adept instructor ready to demonstrate a list of dos and don’ts to which students must measure. Rather, in contrast to the traditional role of the instructor that stresses the notion of “content delivery”, the systems theory approach instructor tries to underscore the primacy of interpersonal relationships between the instructor and students and among the students. Thus the systems theory approach classroom promotes a positive attitude towards relationships in the classroom with an emphasis on building a learning community, where the instructor and students feel emotionally close, safe, trusting and adjust to teaching and learning (Wentzel, 2009; Meyer & Turner, 2007).

**Emotional Scaffolding**

According to Meyer and Turner (2007), effective teachers are those that identify their students’ and their own emotions and are able to support students’ emotions in a way that increases students’ motivation and learning. Meyer and Turner (2007) use the metaphor emotional scaffolding to delineate ways by which teachers can use emotions to support the academic growth and achievement of students. According to these authors, emotional scaffolding is “a temporary but reliable teacher-initiated interactions that support students’ positive emotional experiences to achieve a variety of classroom goals” (p. 244). Closely related to the concept of emotional scaffolding are the theory of self-determination and attachment theory. As Meyer and Turner write: “Establishing and maintaining positive teacher-student relationships is essential to developing the trust needed for scaffolding positive classroom environments that support student competence and autonomy through
Conclusion
A systems theory approach to learning underpinned by action research provides symbiotic learning opportunities for instructors and their graduate students. The model portrays the condition of an all-inclusive learning process embracing all the elements involved in intrinsically motivating graduate students for learning. A systems theory approach to learning brings to mind a learning community comprising a seamless web of learning informed by teaching. Passing academic knowledge down to graduate students is more than an objective transmission of facts. Graduate school education should provide students with the autonomy support that allows them to develop their self-efficacy beliefs and open their minds to the myriads of things that they are capable of doing to acquire the expertise needed for the outside world. Traditional university lecturing, obviously, does not encourage creative thinking and action that would cultivate in students a willingness to subject the learning content to logical and systematic examination. In many cases, there are reasons to be optimistic and to continue working on the nuts and bolts of alternative frameworks of teaching and learning in universities, particularly in graduate schools. The set of learning outcomes derived from our actions research and systems theory approach to teaching and learning constitutes instructor and student attitudes that are transmitted in non-explicit fashion but which reach students in various ways throughout the course. Characteristically, these attitudes affect students in a subliminal or subconscious fashion, producing affective effects on student learning (Agbo, 2002). Certainly, a systems approach to learning through collaboration should be on the agenda of university teaching today and universities should desist from being miserably obsessed with lecturing rather than with effective teaching.

It should be obvious that the complexity of a collaborative action research and a systems theory approach to teaching makes it, as any other complex phenomenon, open to uncertainty and confusion. One of the greatest difficulties I envisage is the willingness and the ability of university instructors to share power with their students. The overall impact of a systems theory approach to teaching may be negligible if instructors do not possess the personality and the supporting tools to reinforce supportive and transformational leadership values in their classrooms (Northouse, 2010). As we have seen, a systems theory approach accepts demise and restructures reference to traditional university teaching, moving from the traditional to supportive and transformational teaching and learning. I view the motivational elements in the systems theory approach to teaching necessary to provide changes that are crucial in their impact on instructors in reshaping the philosophy of their teaching as well as reshaping their own perceptions. While a systems theory approach to teaching may be academically appealing, the actual mechanisms that should make the approach meaningful and result-oriented may be lacking if we do not recognize that the success of the systems theory approach to teaching is underpinned by intricate interpersonal-linkages between instructors and the students. The climate in the classroom should be complemented by the expressed need for interpersonal relationships, autonomy support and emotional scaffolding (Wentzel, 2009; Ryan & Deci, 2009; Ciani, et al., 2010). To the extent that instructors and their students are alert to how to mediate power relations in the classroom and how to mobilize the social, psychological and emotional resources on their behalf, we may have to be cautiously optimistic about the success of a systems theory approach to teaching. The participatory effort of instructor and students in redefining objectives concerning the purposes, priorities, and content of teaching and learning in university classrooms can be rewarding to all involved.

References


Pitfalls when Implementing Personal Development Plans: The Role of Job Satisfaction and Job Pressure

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A tool used by many organizations to foster individual learning is the personal development plan (PDP). The question whether PDPs stimulate the undertaking of individual learning activities and improve the mastery of relevant job competencies has been addressed in mostly quantitative research in educational settings. However, additional research is needed into the tool’s functioning in the business environment and from a qualitative perspective, to gain insight into the reasons for possible (in)effectiveness of PDPs in the workplace. In this study, comments of 87 professionals from four Dutch (non-)profit organizations given on a questionnaire investigating learning with a PDP, were analyzed to investigate the effectiveness of the tool for workplace learning, including the effects of job satisfaction and job pressure. According to the PDP users’ view, the tool is only effective when sufficiently supported by management and the organization; otherwise it leads to job dissatisfaction and job pressure. When employees have the opportunity to spend time on learning, receive appropriate feedback and have clear incentives to use the tool, PDP users see the tool as a valuable addition to their personal learning efforts. Implications for future research include the need for a systematic investigation of these supporting conditions.

Theoretical Framework
Managing learning in organizations becomes ever more important in the age of the knowledge economy. With knowledge being the main production factor, organizations face an increasingly complex environment that requires them to adapt and change constantly. Only when organizations are able to create knowledge from accumulated information (Nonaka, 1994), they can remain competitive and provide superior products or services (Garvey and Williamson, 2002). A tool used by many organizations to foster individual learning is the personal development plan (PDP), which many organizations use to e.g. develop their managerial staff. Beausaert et al. (2011, p.236), based on a literature review, define a PDP as follows: “a PDP (1) evaluates which competencies an employee has been working on and is planning to further develop; (2) is composed by the employee him- or herself, working with a format provided by the organization; (3) is the basis for development conversations with the supervisor, guiding feedback provision and employee reflection; and (4) serves to plan actions towards achieving one’s goals, for promotion purposes”.

The PDP Process
Many authors have been arguing on the effects of using a PDP on the extent to which employees undertake learning and development activities (e.g. Evans et al., 2002). The theorized power of a PDP refers to the sequence of learning processes involved in the use by an employee. More precisely, the PDP process of setting goals, deciding on strategies to reach these goals, undertaking action and reflecting on one’s experiences, resetting goals etc. is modeled on Kolb’s experiential learning theory (1984), that emphasize the role of active experience and reflection for learning (Rouse, 2004). Figure 1 illustrates the cyclical process through which a PDP facilitates the strategic undertaking of learning activities as well as reflection on personal development from learning. Starting with reflecting, this stage involves a careful investigation of personal and organizational goals, an assessment of strengths and weaknesses regarding current competency levels and expected competencies. Based on this evaluation, the learner, together with a supervisor, defines one’s own learning goals, relating to the competency evaluation of the first step. Moreover, activities are specified to reach the defined learning goals. The next phase is active learning; taking part in formal training, informal learning, feedback seeking and experimenting are just some of the many possibilities (Smith and Tillema, 2003). Following the active learning experience is a phase of evaluation. After evaluating the undertaken activities, the cycle begins anew with another reflection and assessment. All activities performed in the circle, including planning, reflecting and evaluating, are recorded in a PDP. A PDP thus becomes a comprehensive document visualizing and proving an individual’s learning effort and performance changes. To summarize, a PDP is a tool that helps an individual develop a certain set of competencies described by the learner’s organization in a circular, reflective process. Therefore, the first research question analyzed is: Why do PDPs (not) stimulate the undertaking of individual learning activities and improve the mastery of relevant job competencies?
The Role of Job Satisfaction and Job Pressure

However, frequently implementation of the PDP process is met with resistance and empirical findings on the tool’s effectiveness are ambiguous (for a review, see Beausaert et al., 2011). To explain the differential findings on PDP effectiveness, several supporting conditions have been identified that are necessary to support the PDP learning process. Examples of environmental supporting conditions are the quality of supervision (Lyons and Evans, 1997) and high-quality feedback provided to the learner (Rouse, 2004). Yet, former PDP studies focused mainly on conditions that are directly related to PDP-use, while conditions related to more general job conditions might also affect the use of PDPs, e.g. job satisfaction and job pressure. In this respect, the pivotal study of Karasek (1979) evidencing the Job-Demand-Control model, shows the reducing influence of job pressure on employees learning, while Rowden (2004) reports evidence for increased learning activities in the presence of job satisfaction.

Individual learning was previously shown to be influenced by the learner’s level of job satisfaction, defined as ‘an employee’s affective or evaluative reaction to a job based on comparing desired outcomes with actual outcomes’ (Egan et al., 2004, p.283). To organizations, job satisfaction is a relevant concept because it has been shown to correlate with individual, and thus organizational, job performance. In their meta-analyses of studies connecting job satisfaction to job performance, Petty et al. (1994, p.719) examined evidence from 16 studies on job satisfaction and job performance. They conclude that the average correlation between job satisfaction and individual job performance was .31, indicating ‘that the relationship between individual, overall job satisfaction and individual job performance is stronger and more consistent than that reported in previous reviews’. More specifically, by taking questionnaires, Rowden (2004) investigated how job satisfaction among 794 employees of U.S. small and medium sized organizations influenced the undertaking of learning activities and concluded that overall job satisfaction correlated positively and significantly with incidental, informal and formal learning. Relating this to the PDP learning process, job satisfaction is expected to influence the undertaking of learning activities and competency mastery, e.g. because PDP users feel valued by their organization.

Next, individual learning has been found to be influenced by the employee’s job pressure, a condition defined as ‘when a job is very demanding, but allows little latitude for decision making’ (Vagg and Spielberger, 1998, p.295), based on Karasek’s demand-control model (Karasek, 1979). The combination of low control and high pressure outlined above can also lead to a range of negative effects in employees, from boredom (low demands and low control) to job pressure (high demand and low control). Job pressure, specifically its subcomponents of anxiety and depression, have previously been shown to significantly influence individual learning. Bandura (1997), O’Brien (1986) and Holman and Wall (2002) found that anxiety at the workplace inhibits learning through decreased skill-use, self-efficacy and information processing. In their study of 774 call center employees of three U.K. national banks, using questionnaires measuring skill utilization and self-efficacy as learning outcomes, they found significant negative correlations between skill utilization and self-efficacy on the one hand, and anxiety and depression on the other, concluding that ‘learning reduces strain, strain inhibits learning, and job control is an important precursor of both these relationships.’ (Holman and Wall, 2002, p.283). To conclude, this evidence points out that if an employee experiences job pressure, he has limited resources available for other activities, such as learning, while simultaneously experiencing decreased perceived ability to learn and master new challenges. Thus, the second research question is formulated as follows: Which pitfalls in implementing PDPs in organizations lead to job dissatisfaction and job pressure, impeding effective learning?
Contributions of this Study

Previously, most research on PDPs has been conducted in educational settings, e.g. in teacher qualification (e.g. Stone, 1998; Wildy and Wallace, 1998; Mathers et al., 1999), so that generalizations to the business setting are difficult to make. In addition, little research has concerned itself with the pitfalls impeding successful implementation in organizations. To address these issues, this study is aiming to answer the proposed research questions within a business setting of four Dutch (non-)profit organizations, focusing on challenges to the effective PDP process.

Methods

Participants and Data Collection

The study conducted here is part of a larger project researching the effectiveness of PDPs in organizations. A questionnaire was distributed to PDP users in four Dutch (non-)profit organization (see Table 1 below).

<table>
<thead>
<tr>
<th>Type of Organization</th>
<th>Subject</th>
<th>Response Rate</th>
<th>Number of Comments</th>
<th>Average Age</th>
<th>Average Work Experience</th>
<th>PDP Practice</th>
</tr>
</thead>
<tbody>
<tr>
<td>A local government</td>
<td>286</td>
<td>20%</td>
<td>62</td>
<td>46-50 years</td>
<td>21-25 years</td>
<td>Mandatory, part of appraisal</td>
</tr>
<tr>
<td>B municipality</td>
<td>47</td>
<td>30%</td>
<td>9</td>
<td>45-50 years</td>
<td>16-20 years</td>
<td>Voluntary</td>
</tr>
<tr>
<td>C medical technology</td>
<td>84</td>
<td>42%</td>
<td>10</td>
<td>36-40 years</td>
<td>0-5 years</td>
<td>Mandatory, part of appraisal</td>
</tr>
<tr>
<td>D business services</td>
<td>106</td>
<td>27%</td>
<td>6</td>
<td>41-45 years</td>
<td>3-5 years</td>
<td>Mandatory, part of appraisal</td>
</tr>
</tbody>
</table>

In order to control for selection bias in the sample studied, two effectiveness measures from the questionnaire were analyzed: learning tasks undertaken and performance change due to PDP use. Learning tasks undertaken consisted of six items on which participants could indicate how much they engaged in the options suggested, e.g. talking to colleagues/managers about a learning issue. Performance change due to PDP use was measured using six items, including faster completion of tasks, higher output quality and optimizing of work organization, both scales requiring participants to indicate on a five-point Likert scale. Regarding learning tasks undertaken, no significant differences were found between participants who submitted a comment and those who did not, while significant differences were found in the scores for performance change in organizations A, B and D (Table 2).

Table 2. Overview of the perceived effectiveness of PDPs by PDP users in the four organizations studied.

<table>
<thead>
<tr>
<th>Learning Tasks, providing a comment</th>
<th>Performance Change, providing a comment</th>
</tr>
</thead>
<tbody>
<tr>
<td>Learning Tasks, providing a comment</td>
<td>Performance Change, providing a comment</td>
</tr>
<tr>
<td>yes</td>
<td>SD</td>
</tr>
<tr>
<td>A</td>
<td>2.85</td>
</tr>
<tr>
<td>B</td>
<td>2.19</td>
</tr>
<tr>
<td>C</td>
<td>3.53</td>
</tr>
<tr>
<td>D</td>
<td>3.45</td>
</tr>
</tbody>
</table>

**. Significant at the 0.01 level (2-tailed).
**. Significant at the 0.05 level (2-tailed).

At the end of the questionnaire, an open-ended question was formulated to ask respondents if they had any further comments. Many participants took the time to write down their experiences with the PDP process and gave insight into the learner perspective on the tool. These comments were analyzed in the current study. We were interested in analyzing the comments of the employees on questionnaires researching the effectiveness of PDPs in the workplace since they give a clear indication of the pitfalls and the problems related to the PDP practice according to employees working with a PDP, in an uncued manner regarding the topics they may address. In addition, the comments included recommendations on how organizations may address these pitfalls.

Data analysis

In total, 87 comments are collected from the four participating organizations. Direct content analysis as specified by Hsieh and Shannon (2005) was conducted. In a first step, the main concepts to be investigated were defined: undertaking of learning activities, mastery of job competencies, job satisfaction and job pressure. Based on literature presented above, the measures were defined. Next, comments left by participants were divided into...
messages: units of text in which one thought was communicated were separated from other thoughts presented by the same participant (Minichiello et al., 1990). In total, 117 messages were isolated from the questionnaire answers. In the following steps, messages were coded into four categories, as defined below, based on the literature presented:

- Information on PDP effectiveness through the undertaking of learning activities: statements on when employees felt the tool was useful, in which situations they profited from it, results they noticed in the workplace from their PDP use
- Information on PDP effectiveness through the increasing mastery of job competencies: allusions to the development of job competencies through the use of a PDP, changes in performance (evaluation)
- Cues related to job satisfaction: satisfaction derived from behaviour by colleagues and supervisors in PDP process, satisfaction from engaging in tasks to learn with the PDP, satisfaction with the incentives to use the PDP
- Statements related to job pressure: stress or anxiety resulting from time pressure experiences during the workplace when using a PDP, stress or anxiety resulting from lack of support in one’s learning with a PDP by supervisor and organization, stress or anxiety from information provision in the PDP.

A second assessor was asked to code a sample of 20 statements in order to assess the reliability of the coding. A match of 78% was calculated. Statements collected within each of the four categories were then summarized by the main concepts mentioned by participants.

**Results**

**Why do PDPs (not) stimulate the undertaking of individual learning activities and improve the mastery of relevant job competencies?**

Comments provided by participants regarding the perceived effectiveness of PDPs in terms of learning activities undertaken and development of job competencies are ambiguous. On the one hand, four statements from Organization A agree that the PDP is useful to summarize past learning activities, “as a sort of CV”, creating “a moment of evaluation (…) regarding my ambitions to perform and develop well. This evaluation may then lead to adaptations for the future”. On the other, regarding undertaking of learning activities, five comments from Organization A make clear that the PDP is not an appropriate tool to develop on the job, either because nothing has changed since its use or no consequences are attached to the tool’s use, “the whole concept is just unnecessary work!”. Looking at the perceived effectiveness to stimulate the development of job competencies, 22 statements from organizations A, B and D were collected that doubted the positive influence of the PDP process. 16 of these comments emphasized the relative importance of personality, motivation and attitude over tool use for personal development, indicating resistance. Regarding the role the organization plays in ensuring a productive PDP process, five comments from organizations A and B emphasize the role of the supervisor in supporting the PDP process with feedback, “My boss has never talked to me about my PDP. I have not had a performance interview in ages… My conclusion: if used in this way, the PDP does not add anything.”. Finally, one comment from Organization D added that “it is not the PDP itself that improves learning, it’s the resources, time / money, that allow for improving skills”. These last two points connected with perceived PDP effectiveness are mirrored in the pitfalls identified in the analysis of comments on job satisfaction and job pressure.

**Which pitfalls in implementing PDPs in organizations lead to job dissatisfaction and job pressure, impeding effective learning?**

In total, 65 statements were identified that commented on either job dissatisfaction and job pressure in connection with using a PDP in all of the four organizations. Mainly, the PDP process was seen as a source of dissatisfaction and pressure, rather than as a relief, epitomized by the 32 times the following statement was made (in similar wordings): “after filling in the PDP once, nothing is done with it. It makes no difference whether I have it or not – it just takes up time”. Not one statement mentioned job satisfaction and job pressure in a positive relation with the PDP process. Looking at the comments in depth, five pitfalls become apparent as described in table 3.

Looking at the role of the supervisor in the PDP process, three pitfalls were pointed out by the participants: lack of use of PDP information, low quality of feedback provided and an unclear purpose. Firstly, in addition to the 32 comments mentioning lack of use of the tool in all four organizations, seven comments from Organization A focus on the lack of use of information they provide in their PDPs, stating that “every year, I grudgingly fill out the PDP, because my boss expects me to. He always supports everything I write. That is no assessment and certainly not helping.” and “I have filled in my PDP, but I never noticed that my boss knows what’s in there”. Participants complained of the lack of use of their PDP information e.g. for task allocation:
“personally, I think management is not using the PDPs at all. This becomes obvious when they are looking for people with certain competencies, but do not manage to find the right ones’.

Secondly, six statements pointed to the low quality of feedback received by supervisors, e.g. “feedback is given by people who, in my eyes, are not competent to do so”, “when I have an evaluation interview with my supervisor, he always says the same, standard thing, without looking at my PDP”, or “feedback is given by people who do not know you in your daily work and thus cannot really tell you anything, or there is someone who knows your work, but is not allowed to give feedback…”. These comments point to the need for higher quality feedback in order to learn successfully with the PDP, given by people who are knowledgeable about their employee’s work.

Thirdly, three comments point to the fact that sometimes, the purpose of the PDP is not clearly communicated, resulting in impressions such as “I see the PDP as a tool made by and for management’s interest. I do not attach any value to it. Management can try to get more and more information about me, but this is not a good development practice”, confirmed by the experience of another participant: “my supervisor adjusts my evaluation to what suits him. The content of my PDP is interpreted accordingly I feel”. A second element is brought up with the following comment: “The PDP is not a safe thing – it is to be filled out by the employee, with all risks attached to reporting failures”. These three statements point to resistance rooting in mistrust due to an unclear purpose of the tool. One participant from Organization A summed it up as follows: “The slogan on the workplace is: despite management, not because of it, do we develop”.

Table 3: Organizational Pitfalls in the PDP Process

<table>
<thead>
<tr>
<th>Sources of Dissatisfaction</th>
<th>Organizational Pitfalls in the PDP Process</th>
<th>Organizational Responsibility</th>
</tr>
</thead>
<tbody>
<tr>
<td>(1) PDP Information Use</td>
<td></td>
<td>(4) Follow-Up Costs</td>
</tr>
<tr>
<td>- Retrieve information provided</td>
<td>- Training budget</td>
<td></td>
</tr>
<tr>
<td>- Use in e.g. appraisal interviews</td>
<td>- Time needed to learn</td>
<td></td>
</tr>
<tr>
<td>(2) Quality of Feedback</td>
<td></td>
<td>- Training supervisors</td>
</tr>
<tr>
<td>- Know the work of the employees</td>
<td></td>
<td></td>
</tr>
<tr>
<td>- Constructive feedback</td>
<td></td>
<td>(5) Setting Priorities</td>
</tr>
<tr>
<td>(3) PDP Purpose</td>
<td></td>
<td>- Daily productivity</td>
</tr>
<tr>
<td>- Communicate purpose &amp; consequences</td>
<td>- Personal development</td>
<td></td>
</tr>
<tr>
<td>- Do not punish reports of failure</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Regarding the organizational responsibility of ensuring a productive PDP process, two more pitfalls could be identified: taking follow-up costs of the tool into account and setting priorities regarding productivity and development. The fourth pitfall is characterized by statements such as “(…) many requests for taking part in trainings is declined – no money, no time, no need”. Requiring one’s employees to maintain a PDP, spending time on their personal development without providing the time and money to do so causes stress and frustration: “this job does not really offer any development opportunities. My colleagues and I have been asking for trainings, formal and on the job, for years but nothing happens. So the PDP is useless”.

Finally, five messages from Organization A, C and D clearly state that personal development is valued less by their organizations than daily productivity: “current situation is that work is always number 1, and there is simply very little time for training”, “the PDP would have been interesting if I would have the time for it beside our normal work. It’s not that I am not willing” or “in our lean and mean organization, efforts are necessarily focused on the assigned project and anything else is procrastinated”. This clearly points to the fact that employees perceive their development as not highly valued and therefore, not a prime point of attention for them. In the long run, this attitude might pose large challenges to the respective organization, especially given that they invest in learning now.

Discussion
Having identified five pitfalls organizations will want to avoid when implementing the PDP as a learning tool, participants in this study also made specific suggestions on how to address these challenges. Table 4 below lists the statements made by participants from all four organizations.

Given the fact that most recommendations were voiced by multiple participants across organizations, it appears that participants have developed a clear vision of how the PDP process can be improved. Firstly, regarding the role of the supervisor, a clear request for use of information is apparent, which implies a system that allows easy access and sharing of one’s PDP. Moreover, supervisors should have incentives to use PDP information, e.g. by making personnel development efforts part of the supervisor’s appraisal. Regarding the quality of feedback, participants request to receive feedback by people familiar with their work and their challenges, who have been...
trained to give effective feedback that is constructive, applies to the employee’s situation and is aimed at further personal development. At this point, organizations must take responsibility to properly equip supervisors responsible for implementing PDPs with the skills necessary to do so effectively. Finally, it is the supervisor’s responsibility to communicate the purpose of the PDP to their employees by making clear what the benefits of the tool are (e.g. bonuses, promotion, increasing responsibility) and that there will be no negative consequences connected with the reporting of failures and mistakes. It is the responsibility of the supervisor to create an atmosphere in which employees feel safe to share their learning by mistakes in order for true learning to take place (Edmondson, 2003).

Table 4. Recommendations to address the five pitfalls

<table>
<thead>
<tr>
<th>Supervisor Responsibility</th>
<th>Organizational Responsibility</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Avoiding Dissatisfaction</strong></td>
<td>(1) PDP Information Use</td>
</tr>
<tr>
<td>- Information recorded in the PDP must be passed on to (new) supervisors in the organization (Organization A, B and C, 5 comments)</td>
<td>- The PDP process must be an ongoing, cyclical process of training and feedback (Organization A, B, C and D, 24 comments)</td>
</tr>
<tr>
<td>- The tools need to be supported by managers to actually work (Organization A, 10 comments)</td>
<td>- The PDP use needs to be connected to tangible benefits (e.g. bonus, promotion, responsibility) (Organization A and C, 7 comments)</td>
</tr>
<tr>
<td><strong>Quality of Feedback</strong></td>
<td>(2) PDP Purpose</td>
</tr>
<tr>
<td>- People who evaluate you based on your PDP need to know you personally to give effective feedback (Organization A, 2 comments)</td>
<td></td>
</tr>
<tr>
<td>- Supervisors need to receive training in PDP use and more resources to facilitate the PDP process (Organization A and B, 6 comments)</td>
<td></td>
</tr>
<tr>
<td><strong>Avoiding Pressure</strong></td>
<td>(3) PDP Purpose</td>
</tr>
<tr>
<td>- Managements’ and employees’ interests in the PDP process must be balanced (Organization A, 3 comments)</td>
<td></td>
</tr>
<tr>
<td>- There needs to be psychological safety for employees to supply complete and truthful information in the PDPs (Organization A, 1 message)</td>
<td></td>
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</tbody>
</table>

Regarding organizational responsibilities for the PDP process, it must be understood that the PDP is a tool with substantial follow-up costs regarding training budget (both content-focused courses for employees as well as process-oriented courses for supervisors on feedback and reflection), time needed to reflect and work on the PDP, and resources to allow for on-the-job learning and experimenting. Secondly, using the PDP must be connected to tangible benefits for the employees, thus this tool might not be applicable for all employee groups. In management development programs that offer multiple ways of advancing in the organization, this requirement can be easily met, while the tool’s aim must be communicated differently to employees with less development opportunities, emphasizing not the organizational, but the individual importance of continuous development.

Finally, looking at the organizational responsibility to strike a balance between daily productivity and employee development emphasizes the temporal dimensions of both concepts. While daily productivity generates profits in the short run, employee development allows the sustained generation of these profits. Looking at the fact that the four participating organizations are spending funds on personnel development yet face challenges to make the PDP process work effectively, it gives the impression that initial investment in the PDP process without further investment in development opportunities creates sunk costs and negates the initial goal of developing one’s staff. This implies that on the one hand, organizations must be aware that the pitfalls identified in this study surface if the tool is improperly supported after initial implementation. Special emphasis
must be placed on the role of the supervisors responsible for handling the PDP process with the employees. Their eligibility and ability to give productive feedback is paramount to the success of the tool, and must be supported by the organization with appropriate preparation for the PDP process and enough leeway to provide employees with development opportunities and rewards in a flexible manner.

Several limitations need to be taken into account when interpreting the results of this exploratory study. Firstly, we need to be careful when generalizing the results to other settings, although the research was conducted in four different organizations. This study, however, aimed to explore possible pitfalls when using a PDP, indicating possible pathways for future research and practice. Secondly, since self-reports were used and the participants could voluntarily add comments to the questionnaire they were asked to fill in, a selection bias towards negative experiences with the tool is present in two of the four organizations. However, those comments are clear indications of possible pitfalls to overcome when implementing PDPs as an organization, supervisor or employee. Future research should focus on developing a valid instrument to measure the conditions for effective use of PDP’s as resulting from this study, by objectively measuring actual learning taking place in organizations, questioning users, supervisors and management. Thirdly, cross-sectional data were used. As a result, no causal relationships can be established. Hence, longitudinal and experimental research is needed regarding the conditions under which a PDP is effective in stimulating experiential learning. Based on the findings of this research, among the conditions tested should be the quality of supervisor support, organizational use of information from PDPs and the alignment of PDP purposes to individual and organizational learning goals. Next, literature also suggests a more thorough investigation of the role of individual learner characteristics on the learning process with PDPs (e.g. Smith and Tillema, 1998; McMullan et al., 2002; Orland-Barak, 2005). In order to gain deeper insight into the relevant challenges and supporting factors for PDP users, focus interviews with learners should be conducted in order to derive best practices, challenges and suggestions for future improvements of the PDP process.

To conclude, a lack of alignment between organizational goals for individual development through PDPs and organizational commitment to the tool was delineated to create dissatisfaction and job pressure, preventing employees from learning effectively. Several recommendations were made to help increase the overlap between organizational goals and organizational actions, by increasing quality of supervisor support, handling of the PDP process within organizations and establishing a clear purpose for PDP use. However, future research will be needed to establish systematic and causal analyses of conditions under which individuals can effectively use a PDP. By investigating how recommendations can be implemented, the PDP process can be prevented from being a source of dissatisfaction and pressure, and instead become a foundation for effective individual learning.

References

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The Power of Video Feedback: Its Efficacy in the Classroom and Beyond

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Abstract: Grounded in twenty years experience using video feedback to aid in the assessment and development of leadership abilities, this presentation reports on a new approach that includes video feedforward. The framework for the use of video is based upon a learner-centered educational methodology and implements feedback/feedforward video elements in an iterative and structured process. The focus is on the interaction affect between the learner and the content or aptitude that are the targets for the learning outcomes. The process is simple and straightforward and makes use of technology that is readily available and in use by most of the learner population. The tools, techniques, and mindset of those responsible for facilitating learning will be addressed. The educational benefits of video feedback/feedforward can be generalized to a single course or an entire program. It can be used to target learning in any discipline or domain area. The efficiencies of the approach will be highlighted as well as the adaptability of the methodology for use in both classroom and action learning platforms.

Overview
Much has been written about feedback and feedforward. The problem is that most of what is written about both of these activities addresses either the biological or engineering principles of the science orientations for these two expressions. The use of feedback as a technique to bolster the learning process has been targeted in large and small-scale research projects with a crescendo occurring between 20 and 30 years ago. Feedback in higher education and in the workplace has become a regular, though largely misunderstood, function in the “development” process. Feedforward is another process that is mainly described in scientific and engineering publications. It is more recently being used as a communication technique as a replacement for, or enhancement to, developmental feedback.

Video Feedback
Video feedback has been used in developmental work for over 40 years but much of the research that provides insight on its value and use were published over twenty years ago. Modern technology has greatly improved the ease of both recording and distributing video. Many applications have been created to aid in the development processes of professionals from various industries from sports to surgery (Fadde, 2007). The use of video for feedback purposes has clear advantages over other forms of feedback on behavior activities that are part of a leader’s skill set. Video feedback can aid in the development and refinement of such skills as oral presentation, reaction to critical questions, review of substantive material, oral case analysis, reflective articulation, and other forms of communicate ability.

Feedback Framework
Video feedback has been applied to two project-based action learning graduate programs and a myriad of both undergraduate and graduate business courses at two large universities over the past 20 years. Student presentations, sales pitches, text highlights, project reports to clients, problem identification, creative problem solving, and other similar types of performance events were targets for video recordings. Initially, the recordings were saved on tapes and either reviewed in the classroom following the recorded event or provided to the students for them to review at their next available opportunity. In either case, before viewing the video students were tasked with completing an AAR (after action review) where they addressed three key questions: 1) what worked, 2) what didn’t work, and 3) what would be done differently in they had a chance to do it again. The coach, or instructor, also provided written feedback regarding the performance.

This feedback was also presented to the students prior to their viewing the recording. More recent research offers confirmatory evidence regarding the power of feedback on learning (Hattie and Timperley, 2007). Earlier research confirmed “feedback is more effective when information is gathered from a number of sources” (Brinko, 1993, p. 576). Students have the advantage of testing their personal assessment with those of other students, the instructor, and the raw video footage – upon which they may well draw new conclusions and gain additional insight. Another finding of previous research is that feedback “is more effective when information is gathered from oneself as well as from others” (Brinko, 1993, p. 577). Asking that the students record their own thoughts regarding their performance and then readdress the performance while watching the video helps to solidify the value of the overall feedback.
The value of video feedback satisfies many of the research findings regarding the content of feedback and its increased effectiveness when it: a) includes accurate information, b) contains concrete information, c) contains specific data, d) is focused, e) focuses on behavior, f) is descriptive rather than evaluative, g) creates cognitive dissonance, and h) contains models for appropriate behavior (Brinko, 1993). It is readily accepted that raw footage of a performance event, as long as it captures the entire event and is unedited will be rated highly across these measures of effectiveness.

It is a long-standing accepted acknowledgement that the sooner feedback can be provided the better the impact of that information on subsequent practices. Ilgen, Fisher, and Taylor concluded “the longer the delay in the receipt of feedback, the less the effect of feedback on performance” (1979, p. 354). Today with the power of digital video equipment and compressed recording media it is possible to quickly share a digital file containing the video recording along with a written record of feedback from various sources. A student presentation can be recorded, compressed, and saved to a digital file made available to the student for review purposes within minutes following the performance event.

Research findings also suggest that feedback is more effective when it occurs on an iterative basis and is not a once and done occurrence (Ilgen, Fisher, and Taylor, 1979; Roland, 1983). Repeated use of feedback helps the student to better appreciate the need for change and provides an opportunity to see the results of actively pursuing the change in behavior. Students are tasked with several assignments where their performance is recorded and the process is repeated that includes: 1) performance, 2) AAR, 3) feedback from others (including the coach/instructor), and 4) viewing and reacting to the video.

Feedforward Framework
The practice of using feedforward to impact behavioral change has been largely spurred by the conviction of Marshall Goldsmith (2003) using the term coined in a discussion with Jon Katzenbach, author of The Wisdom of Teams, Real Change Leaders, and Peak Performance. As mentioned above, prior to the Goldsmith/Katzenbach discussion, the term feedforward was used solely in scientific and engineering contexts. The value of feedforward has been validated in at least one research article (Nygård, Hjøl, and Hermansen, 2008). Today, there is a growing number of professionals who value the use of this technique as a replacement for, or enhancement to, more traditional feedback practices. The main distinction is on the time target. Feedback targets the past, which we cannot change and feedforward targets the future, which we can impact. The approach works best with successful people who are more interested in finding productive ways to help people than finding blame in people. Because it is targeting behavior and not the person, feedforward tends not to be taken in a defensive mode. Although it can be used to cover much of the same material, it tends to be more easily accepted by people as a fun activity that is much more efficient than feedback. The main objective of feedforward is to make suggestions that will help future performance.

Combining feedforward with recorded video is painlessly possible today with technology support. Rather than merely providing words as a reaction to a performance, the coach/instructor or expert reviewer is able to demonstrate the targeted behavior and link that demonstration to the original recorded performance. This provides insights that are obvious but not personally defeating. The recorded video of the original performance can also be modified to show the value of the targeted performance directly on top of the original. This provides a combined feedback/feedforward video that offers the learner greater information upon which to base subsequent performances.

Applications and Research Needs
The value of both video feedback and video feedforward to enhance the development process is clear. The problem is that many individuals have an initial reaction against seeing themselves on video. The experience of the author following twenty years of applied video feedback is that people get over their fear of video within a few instances of the experience. The technology has helped with this matter. Today, the camera can be a cell phone or even smaller – a web cam. Most laptops and cell phones today come with one imbedded at the top of their screens. As educator, or learning facilitator, we need to be more inclusive in our use of various approaches to enhance learning. The use of video is one such approach. If it can be incorporated into the normal practice of helping students to reflect on their individual and team performances, then learning from that experience will become accepted as a normal event in their educational or developmental experience. The trick is to not make it a big deal. Either run the camera setup yourself, or have the students take turns doing so. Use the more simple technology available that will provide the students with the view that you see. The camera should be able to remain stationary in the back corner of the room, or sitting next to a reviewers’ table. No need to play “director” with panning and zooming. Because the audio technology has kept up with the video technology, there is little need to use external microphones. The one on the camera or cell phone works just fine. Finally, there are many free compression software programs available to make it easy to reduce the size of the video file so that it can easily be posted to a website or learning management system. Anyone can do it.
As students in K-12 classrooms are using video today, it is only a matter of time before it becomes second nature to all. There is no age requirement or age limit for using technology. The challenge for those of us in the third age is to continue to learn and remain relevant. This is especially true for educators. Of course, part of this relevance is to continue to expand our research platforms to incorporate enhancements to the learning process. The time is ripe for educational researchers to heed the call of video feedback and video feedforward and develop the measurement tools that will increase the value and improve the process of using such tools in support of developing our future leaders.

References
Opening up! How to take full advantage of Open Educational Resources (OER) for Management Education

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Abstract: General awareness and availability of Open educational resources (OER) have increased in recent years. Some institutions have already started incorporating OER in their strategies. However, compared to other educational fields, OER in Management and Business education have shown rather slow growth. This article discusses the incentives and barriers for the use of OER in Management and Business education. It reviews some useful accomplishments in the field, presents recommendations from various stakeholders and introduces the OpenScout initiative aimed at gathering OER and related tools for Management education.

What are Open Educational Resources?
The UNESCO defines OER as “technology-enabled, open provision of educational resources for consultation, use and adaptation by a community of users for non-commercial purposes” (UNESCO, 2002). However, the motivations for OER are not only altruistic or non-commercial in nature. (Bitter-Rijpkema and de Langen, 2011) In principle, OER refers to the fact that digital materials (texts, html, multimedia files etc.) are freely accessible and re-usable for educational purposes under different licensing conditions. (Pirkkalainen and Pawlowski, 2010)

The OER movement experienced a swift development, fuelled by highly visible initiatives, such as the decision of the Massachusetts Institute of Technology (MIT) to allow free online access to its course materials. Other initiatives have followed and users can now access more than 350 million OER, ranging from short articles to full courses; including videos, course slides and case studies. (Vladoiu, 2011)

However, a quick look at the domain shows an extreme fragmentation of the offer of OER. Everybody is aware of the MIT initiative that shows very impressive figures (1 million visits every month, from virtually all countries in the world, 95 million visitors in total). The reality also covers a myriad of much smaller initiatives, with local and regional institutions deciding to join force to allow access to some of their courses, materials and resources. Over the past few years, though, the biggest area of growth for OER came from individuals sharing items they produced. The rise of this type of sharing coincided with the emergence and growing pervasiveness of social networking platforms that facilitate the exchange of educational content, e.g. SlideShare, YouTube, etc.

What are the incentives to use OER?
For institutions, the motivation to give away their learning content for free is not only to share and disseminate knowledge; it also brings increased visibility and international recognition. Additionally, establishing open practice and open policies in an institution supports the internal quality assurance of teaching through more transparency of the production process.

Potential users of OER may be students, informal learners or professionals who wish to improve their knowledge and competences in Management and Business, but lack the time or ability to participate in traditional executive education. There are many advantages for using OER, including flexible access to a huge variety of free or low-cost materials, instant availability and personally chosen resources to suit their needs and constraints.

OER can on the one hand be used as an exclusive source of learning, for example when users do not have access to traditional education providers (for geographical, financial or regulatory reasons). In particular, recent researches (Bitter-Rijpkema and de Langen, 2011) looking at the users of the OpenCourseWare (OCW) at MIT and Tufts University, pointed out an important portion of self-learners. In the majority of cases, however, the recourse to OER is intended as a complement to the traditional models of education. As such OER does not provide any formal recognition of these informal studies. This policy of “no credit, no instructor, no charge” is always clearly stated by the providers, as for example by the OCW (http://ocw.mit.edu/about/). Recently, we observe the emergence of change with the next step in MIT’s initiative providing MITx, “a certificate of completion” for students who demonstrated their mastery (http://mitx.mit.edu/mitx-overview.html).

For the content providers, such as instructors or lecturers in Management, allowing access to their material is often motivated by an altruistic desire to disseminate the knowledge they created, making it accessible to a
much wider audience. It also grants them a place in a vibrant community of peers sharing information and innovations. This networking can also help establishing or improving their reputation in their field.

**What are the barriers of using OER in Business and Management education?**

However, compared with other educational fields, OER in Management and Business studies has shown rather slow growth. Large international consortia such as OpenCourseWare Consortium (http://www.ocwconsortium.org) have been launched, but only a minority of the members are active in Management education. Similarly, the MIT initiative, definitely one of the most visible of the field, gives access to more than 2000 courses, freely available, but only a small proportion of resources, the ones provided by the Sloan School of Management, are dealing with business education.

Many reasons can explain a slower than expected development in the field. Recent research (Humbert et al., 2008) identified obstacles and reluctance from the main stakeholders, whether institutions (business schools, training centres and universities), providers (professors) or users (students and learners).

As regards institutions, Management education is a very specific domain, with a tradition of paid-for education that does not push for a free-access policy. Many institutions are private or semi-private and compete against each other. Some of them may consider their educational material as competitive assets and are reluctant to grant free access. Some institutions may even fear that OER may cannibalise their executive education offering, and deprive them of very profitable activities.

Eventually, developing OER comes at a price and the price tag may be very high. It consists first of all of the cost of the infrastructures for offering and maintaining the online access to the resources. There is also a psychological cost, as the philosophy and the strategy of the institutions need adjustments to accommodate any new OER offered. It eventually necessitates training for the content producers and recognition for their commitment and mobilisation. Recent research showed that no generally accepted business models have yet been developed. (Bitter-Rijpkema and de Langen, 2011)

Many institutions may find these costs intimidating, especially since the benefits in terms of visibility, reputation and brand are essentially immaterial, will arrive in the mid-term and are difficult to estimate or measure. This explains that most of the business schools have been taking a very cautious approach in the development of OER, and that in Europe none of them has yet decided to fully embrace the OER commitment and to follow the MIT example.

For the content providers and in particular the Management professors, the main issue remains the intellectual property. The traditional “all rights reserved” copyright does not offer sufficient flexibility for the OER initiatives. Important progress has been made with the development of more adaptive licensing schemes, such as the Creative Commons set of licenses (http://creativecommons.org/), but some reluctance still remains. Also, as many institutions do not yet define their policy to go open, professors and lecturers often have no incentive or recognition to develop or share OER. Besides, in the absence of institutional support, the authors need to solve by themselves the issue of the access to their resources. Where to store them for public access, how to publicise them, where to have them referenced for easy access?

Users, whether students, professors or managers, may find the search for OER very time consuming. This issue is even more stringent for self-learners who are less aware of the academic codes and practices. Many OER initiatives are scattered and quality resources are often difficult to localise. This results in tedious searches for the users to scan websites of individual institutions in order to access their materials. Generalist search engines return an abundance of resources that do not differentiate between OER and other (web) resources. It is left to the user to evaluate the millions of results, which can be rather daunting, as the users often don’t have the capabilities or simply the time to sort through the results to assess the quality of the resources. This creates an important trust issue.

The experience of the established OER initiatives shows that the vast majority of users is composed of students or self-learners. These populations are also the ones for whom the access to pertinent materials of proven quality is most important.

**What could stimulate students and professors to use OER in Management?**

So far, the move towards OER has logically come from the suppliers, launching new initiatives, without always taking into account the needs of the users and individual providers.

A recent initiative, the EU-funded OpenScout project (learn.openscout.net), aims to facilitate the search for OER in Management and build a community of stakeholders. The project investigates the needs and expectations of providers and users of OER in Management and develops a portal providing a specialised search engine, in combination with sharing, publishing and community functionalities.

Two main categories of users, students and providers, have been extensively surveyed through individual in-depth interviews, focus groups, experimentations and questionnaires to qualify their needs in terms of OER and their experiences when using them. (Botha et al., 2012) As such, it provides a very interesting feedback on the
actual perceptions and needs of the users but also the way they take advantage of the OER development. The findings are summarised in Table 1.

Table 1: Use of OER – Expectations and Barriers.

<table>
<thead>
<tr>
<th>Use of OER</th>
<th>Expectation</th>
<th>Barriers</th>
</tr>
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</table>
| Preparing lectures/courses and accessing pedagogical materials | • Interest for a one-stop shop to quickly identify relevant materials  
• Interest for a specialised website with relevant knowledge and information  
• Interest for high quality, specialised materials not found on generalist sites  
• Need for various formats available (documents, video, slides, etc.)  
• Need for commented and rated material to ensure relevance, usability and quality | • Need for critical mass of documents and actualisation of the materials  
• Resource supply is scattered and resources are difficult to search and identify  
• Lack of familiarity with the technology and need for an easy and intuitive search engine  
• Need of advanced search possibilities, not found on generalist search engines |
| Posting materials on line / reuse the materials | • Recognition and acknowledgement among colleagues and peers  
• Initiating collaborations  
• Visibility of the author or of his/her institution | • Copyright issues  
• Lack of familiarity with Web 2.0 instruments  
• Complicated process, time required is dissuasive |
| Interacting with colleagues and peers | • Getting feedback and input from colleagues  
• Getting recommendations on materials to ease selection or materials and lower risk | • Need for critical mass of users in the community to allow fruitful exchanges |
| Getting updates on their domain of specialisation | • Getting information on what has been added recently  
• Getting update on comments and ratings on their contributions  
• Suggestions for interesting materials | • Overall scepticism about relevance of categories and newly added materials |

How to access Management OER? – Insights from the OpenScout initiative

The OpenScout portal (http://learn.openscout.net) is a collection of digital repositories for open Management content. Through OpenScout, users can easily access OER from a single website. The OpenScout portal is free and can be used not only by learners and students directly, but also by teachers and lecturers to enhance their courses with free materials, by librarians and documentation experts, who identify, search and localise relevant information and who provide this service to teachers, lecturers and students. (Ha et al., 2011)

Providing an easy access to OER, OpenScout brings together accessible, high-quality resources in a multi-cultural, multi-lingual and cross-disciplinary environment. More resources are constantly added in order to achieve significant coverage of open educational content in Management and Business. More than 20 repositories have already been integrated. For content providers and educational institutions, OpenScout offers an interface that automatically collects and displays their content in the OpenScout portal. Individual educators or learners can share or upload their resources directly through a publishing form. With this, OpenScout expects to become a trusted, central and unique point of access to open learning materials in Management and Business. The portal adds extra value to content by organising and implementing a consistent classification system (metadata) across all resources accessed. In this way materials originating from different digital repositories have a uniform appearance. They can also be rated, tagged and commented by end-users to ease the selection of high-quality materials.

By building on this consistent metadata system, OpenScout provides a comprehensive search facility designed around the needs of educators and learners at school or at work. This comprises a simple search where users can search by entering keywords. Additionally, advanced search functions allow users to narrow down the returned results according to various criteria such as language, domain of study, competence, type and format of the material, etc. The competence related services provided by OpenScout are particularly useful to support competence-based approaches in education. These approaches offer opportunities to develop flexible programmes tailored to the needs of learners, trainers and potential employers. Competence-based learning addresses directly the need of individuals to upgrade their knowledge, skills and competences in a particular discipline throughout their lives.
Lowering the technological barriers, the OpenScout portal also offers to users a collection of tools to create, adapt and re-publish OER. (Schwertel et al., 2011) Users can collaborate in creating learning objects and interact (via social networks) or provide feedback to each other. Finally, OpenScout aims to foster a community that advocates, among other things, the sustainable use of OER in the field of Management education and training.

Conclusion
The results of this research and of the OpenScout experimentation show that the development of OER can take place if a suitable environment is created. The quality of the resources is not enough to attract users; the resources also need to be easily accessible. More importantly, this series of surveys show that OER are differently perceived from traditional resources. While the consumption of traditional resources is considered as an individual behaviour, OER are considered as cooperative materials, and their adoption will depend on the possibilities of interaction. Eventually, efforts should be made to lower technological barriers to allow users an easy access to OER and intuitive tools for adapting and reusing the materials, including the provision of adaptation guidelines such as (OpenScout, 2011). Progress in this direction is demonstrated by the OpenScout initiative. In our ever more connected environment, it is easy to forget that some user groups still may find the techniques daunting and have difficulties to use appropriate tools.

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A Case for Live Cases in Business Education

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Abstract: In this paper, we will provide a theoretical overview of the live case study method, an experiential learning method that is used in business education. This live case study method will be defined and the advantages and disadvantages outlined. We will then look specifically at a live case experience carried out as part of a business communication workshop within a career development module at a French business school. The perceptions of the three main stakeholders: students, client and instructors were collected. Students reported that the live case was engaging, enabled them to ally prior knowledge and practice and they particularly appreciated the relevancy of this exercise to their future careers. The client reported their satisfaction with this method, which is a time-saver for them but they expressed concern regarding the “time to market” aspect of a live case due to the time lag between their initial contact with the instructor and the student presentations. At the end of the paper, key pointers are given to those considering using live cases in their teaching.

Introduction

A report by the Association of American College and Education on college learning for the new global century suggests that we are living in a time of great change which is only set to intensify. More specifically, the report states that “the context in which today’s students will make choices and compose lives is one of disruption rather than certainty, and of interdependence rather than insularity” (AACU, 2007: 2). As the future manager is also set to work in very complex and uncertain environments, which are both messy and interdisciplinary (AACU 2010), there is, therefore, an onus on the business school to employ product based pedagogies that engage students in learning knowledge and skills through an extended inquiry process that is structured around complex and authentic questions and carefully designed product and tasks. According to the AACSB, business schools should ensure that “interactive experiences are available in all course and all major learning experiences of the program” (AACSB, 2012: 39), whereby various student groups have the opportunity to learn from each other and the school’s programs should involve collaboration and cooperation among participants in the educational process. This is a clear advocacy of the enhancement of experiential learning (Kolb, 1984) in higher education. Gentry (1990) classifies the live case study pedagogy as being very high in experiential learning potential as it meets the criteria he sets out as the 10 critical components of experiential learning, namely 1) related to the business curriculum; 2) applied by having the expected educational outcomes articulated and related to the curriculum; 3) participative as students are actively involved in the process; 4) interactive beyond the instructor/student dyad to include the client; 5) whole-person focused to incorporate the behavioural and affective dimensions as well as the cognitive dimension; 6) having contact with the environment either real-world or real-world-like contact; 7) involving variability and uncertainty; 8) being a structured exercise; 9) enabling student evaluation of the experience; and 10) integrating feedback to include equal amounts of process and outcome feedback. The live case study has been identified as one of a series of options within the domain of experiential learning methods, which offer real and complex questions to students and which espouses cross- and inter-disciplinary knowledge and the development of alliances with significant others beyond the business school to enrich the educational experience. In the next section, we will look at the theoretical overview of the live case study method to include the advantages and disadvantages of integrating this method into your business education teaching practice.

Live Cases in Business Education

Live case studies (henceforth LCS) have been used extensively in business education in a number of disciplines mainly in marketing (Elam & Spotts, 2004; Mahler & Shaw Hughner, 2005; Camarero et al., 2009; Parsons & Lebkowska-White, 2009, among others.); but also in entrepreneurship (Read & Sarmiento, 2006); strategy (Simkins, 2001; Roth & Smith, 2009); mathematical statistics (Särkkä & Sagitov, 2008); organizational theory and management (Weir, 1978); project management (Kramer et al, 1995); business policy (Markulis, 1985); accounting (Barkman, 1998); and ethics (McWilliams and Nahavandi, 2006; Laditka and Houck, 2006). The LCS is a highly effective experiential method of teaching, whose integration into courses is considered to have a strong effect on student learning (Walker et al. 2001). The LCS can be defined as: A case analysis, that involves a current problem or issue, that a company is investigating, in which the company provides information regarding the problem/issue to the instructor and students. The problem or issue has not been resolved and the company is seeking input from the
students to assist them in making a management decision. In other words, everything is happening now. Students can be viewed as consultants (loosely speaking; not literally) for the firm and at the end of the live case analysis, students present their recommendations to the firm. (Simkins, 2001: 2).

Therefore, there are three main stakeholders in the learning event: the client (or company who has the problem); the instructor (who structures the LCS into his/her teaching module) and the students (who act as “consultants” to work through the case and provide recommendations).

In the literature, there seems to be two main types of pedagogies developed in the LCS approach. The first is where the student teams conduct mini-consulting projects for a company, which works closely with business school faculty to develop an interesting live case experience that is linked to a particular module or course. Rashford & Nieva de Figueiredo (2011) define this LCS approach as the live case intervention method, which involves the CEO entering the classroom to outline a yet unsolved problem that he or she is grappling with. The second, the student authored case method, (Lincoln, 2006) a hybrid method of case instruction using the traditional case study and a live case study. With this method students collect, process, and analyze information as well as conceptualize and lay out information in a manner to set a decision making foundation. They must write a case study and case solution and assume various roles such as researcher, petitioner, interviewer, negotiator, writer, editor and team member. One of the advantages of this method is that the “students move beyond the immediate tendency to search for a preferred solution and instead view the decision setting more broadly and critically” (Lincoln, 2006: 2). So rather than just finding a solution, students in teams must sift through complex information, collect it, order it into a coherent whole to write a case story about an “ideal” ending for a live business marketing decision problem. In order to do this they must understand the decision-setting intimately all the while drawing on their content knowledge. Other authors have also described this type of case experience (Barkman, 1998; Laditka and Houck, 2006). The major distinction between these two types of pedagogies is that the former involves integrating a client into a core business module, whereby all students work on the same issues or problems encountered by the company; and the latter involves the students going out to find clients to work with to author and develop case studies that exemplify a specific principle or issue. In this paper, we will focus on the former approach.

Advantages of LCS Approach

There are many advantages of using live cases in the business education classroom. Rashford and Nieva de Figueiredo (2011) see this experiential approach as building on previously acquired knowledge and moving away from the silo, discipline-based focus typical of the traditional case study method to a more global, cross-disciplinary approach that enables students “to ‘think like a leader’; that is, the ability to intuitively incorporate the existence of various stakeholders, to understand how to effect lasting change that needs to be at least acceptable and hopefully beneficial to all stakeholders and to communicate proposals and decisions in a very clear way” (2011: 35). Apart from the fact that the live case incorporates hands-on real projects into different courses (Titus & Petroshiuis, 1993; Simkins, 2001) and bridges theory and practice by relating real business concepts to real world application (McWilliams & Nahavandi, 2006; Simkins, 2001; Hayes Godar, 2000; Weir 1978, among others); students are also held accountable for their positions and opinions, which they must defend in front of the client (McWilliams & Nahavandi, 2006; Read & Sarmiento, 2006). The students are also seen to build self-confidence when applying their knowledge in the company (Camarero et al. 2009) and this requires them to be sure of themselves in front of the client. The students also develop ancillary skills such as analytical skills (Titus & Petroshiuis, 1993); synthesis of key information in a protean corporate environment (Read & Sarmiento, 2006); critical thinking and increased awareness of complexity (McWilliams & Nahavandi, 2006); people skills (Barkman, 1998); and written and oral business communication skills (Kramer et al., 1995; Elam & Spotts, 2004) to name just a few. The students must therefore engage differently with a live case than with a traditional case study (hence TCS) for example. Whereas students are restricted to the role of analyst and hence passive observers responding to facts and events provided by a distant outside party in a TCS (Bailey et al, 2005), in a LCS they must play the role of consultant in interaction with a real complex and messy situation in order to provide a solution to a current problem. The current and relevant nature of the problems in a LCS means that student must gain an overall “whole” image of the company and develop a systems perspective to see the big picture quickly. So rather than being disconnected from the realities and complexities of an organizational environment, its culture and other salient decision factors in a competitive classroom environment, the LCS projects the student into a cooperative environment, which is conducive to learning and where every student and all solutions proposed are valued by the client. From the point of view of the client or company, they receive faculty-supervised consulting work (Hayes Godar, 2000) and get students to work on and provide novel solutions to problems they are encounter in their business. They also have the opportunity to interact with their local higher educational establishment or business school and can develop other synergies such as getting involved in research projects; becoming more visible to students for potential recruitment

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opportunities; bringing their practical experience to the classroom and becoming more relevant on the marketplace.

Disadvantages of LCS Approach

One of the main disadvantages of using a live case in business education is that it is very time-consuming for the instructor who has to start looking for companies at least one semester in advance (Simkins, 2001), the lack of recognition from the business school for innovating with this type of pedagogy (Elam & Spotts, 2004) and the necessity for the chosen case to illustrate the concepts you may want to focus on in the specific course (Weir, 1978). Weir (1978: 233) also focuses on the issue of complexity in live cases as “experience has shown that some students cannot handle the complexity of learning about concepts and about the organization at the same time. They tend to neglect one or the other”. This suggests that a live case must be contextualized within an overall program of study that includes strong theoretical concepts and principles. The issue of confidentiality is also crucial as it is difficult to ensure complete confidentiality of information if critical analysis of the subject matter is to be discussed in class. The client must therefore be made aware of the risk of this critical analysis and discussion by students and instructor. From a student perspective, the instructor has some difficulties with live cases as there is a great uncertainty regarding what the student will produce and this also questions assessment of core modules. If the live case is being used for assessment, it must match perfectly with the content being covered and this requires major negotiation with the client. The final reports are usually destined for the client and it is difficult to publish the results. If the instructor wants to use this learning experience to write a case study, then they may have difficulties as the price one pays for having access to the organization’s records, leaders and employees, is confidentiality. Camarero et al. (2009) point to another drawback namely student motivation as this type of project requires that extra effort. The instructor must also have a high level of trust and confidence in the student’s knowledge and maturity to deal with the client. Camarero et al. (2009) also discuss the danger of having too much realism as this may hinder and interfere with learning i.e. if the assignment is too complex. They also look at the necessity to define the assignment well and avoid ambiguity and stress the implication and the participation of the company, who must be present and provide the essential information to the students. Markulis (1985) outline four major problems with this method: 1) the reluctance of some companies to divulge sufficient information about their company especially financial information; 2) the majority of companies wanting to get involved in live cases are SMEs, which limits the generalizations one can make; 3) student intimidation when presenting in front of managers and hence are not that critical of the firm’s current strategy; 4) the availability of managers and employees of a company to attend presentations during the day. For a live case experience to be a success the company must open up their company to student inspection and make staff resources available to help students complete the task and the student must not be afraid to take a position and express their opinion. The key then is in the choice of company. In my experience, student engage more with live cases and produce impressive work for the clients and are more interested and prepared to discuss the issues being studied intelligently if the company representatives are in the room during the presentation of findings. Elams & Spotts (2004) express the need to pre-plan a live case, select the company according to course objectives and deal with key issues beforehand such as confidentiality and the company availability to answer student queries. They also advise instructors to document everything and not to forget to integrate an extensive debrief of the case study by the client with the students.

In the next section, I report on a LCS carried out at EDHEC Business School in the academic year of 2011/12 to include the different phases of the method.

Live Case Approach at EDHEC Business School

The live case: Awak’IT- Shaping the Next Generation of Learning Academy (Daly, 2012) investigated in this paper was used as a key part of a Business Communication workshop within an obligatory Career Development Module for all MSc students at EDHEC Business School. The students were studying on various MSc programmes in Business Management (Arts and NGO Management; Entrepreneurship; Law and Tax Management; Marketing Management; and Strategy and Organisation Consultancy). In this section, I will outline the five stages of the workshop methodology as follows: 1) the pre-planning of the live case; 2) the development of the material; 3) the director’s presentation to the students; 4) student teamwork and presentation; and 5) the plenary debriefing session.

1) Pre-planning of Live Case

6 months prior to the workshop, the company Awak’IT, a Digital Communications Group with its headquarters in Paris, was contacted to see if they would like to work with our MSc students. Awak’IT is a young, dynamic, entrepreneurial SME that develops knowledge containers and contents for other companies. In the past few years, they have noticed two major trends in their business: the importance of a culture of learning to advance

Website Awak’IT: http://www.awakit-groupe.com/

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ones career; and the integration of Generation Y into the workplace. They studied both the traditional and the online learning markets and they have noticed that graduates learn differently and want to not only learn but also share their knowledge and competence and co-construct knowledge with their peers. While they had many ideas about the type of learning required, the company felt it necessary to consult young graduates to reflect on this issue for two reasons: 1) they are the target population or future prospects; and 2) they are in the best position as current Gen Y students and future clients to bring fresh ideas to the question. Awak’iT posed two macro-questions: 1) how they should shape the next generation of Learning Academies; and 2) what the students consider to be THE value-added learning provider for their clients? In addition, Awak’iT wanted to have an answer to one of the following questions:

1) Which business model is most appropriate? Analyze the existing business models of corporate universities/academies and propose a sustainable business model for Awak’iT to enable them to be competitive on this market.
2) Who are the main global competitors? Analyze the main global competitors in order to ascertain how they provide learning solutions. What are the market niches that are not being covered? How can Awak’iT create a value proposition to its clients to address this new need for training and how can they differentiate themselves from their competitors?
3) What are the legal issues concerning Intellectual Property in France that Awak’iT needs to bear in mind? Analyze the French IP legal issues and provide detailed information on what aspects must be considered carefully.

2. Development of Material
Together with the Associates of the company, a case brief was developed to include some of the following issues: the company profile; historical overview with key milestones; management structure of the company; their concept; a SWOT analysis with detailed information on their existing and future prospects; list of their major competitors and their differentiation strategy. As well as this case study, other key information about the company was compiled to include corporate documentation, annual reports, information on company strategy, video material, interviews, etc. Once the instructors and the associate directors were satisfied with the amount of information available, it was posted on our business school learning platform (Blackboard®) one month prior to the Associate Director’s presentation to all MSc students.

3. Director’s Presentation to Students
The Associate directors of Awak’iT came to present their company and the strategic problem they are facing to all MSc students. This is a mandatory presentation of the company and forms part of the career development workshop curriculum. They clarified the already distributed material and explained the corporate culture, strategic, and answered various questions posed by the students on the existing material and the project they are about to embark on. The interaction with the associate directors of the company is crucial in order to clarify logistics, to ensure that the students have understood the challenges facing the company and for the company to express their particular business needs. This interaction is videoed and the video file is made available on the learning platform for students to watch later on to clarify any points they may have missed.

4. Student Teamwork and Presentation
The students have then two weeks to work in a team of 4 on the case study. Professors within the business school are available to answer any questions regarding strategic or managerial issues. The company professionals make themselves available and provide students with contacts to various key people to answer any particular corporate queries that arise, to provide additional information or to bounce ideas around. The groups then present their findings to two people: a business communication instructor; and an associate director. The jury provides immediate constructive feedback on form (in the case of the business communication instructor) and on content (the associate director of the company). The students must hand in a copy of their slides and an executive summary of their main findings. The jury debriefs each presentation immediately and students go away with written jury evaluation of their presentation skills and content as well as a written peer evaluation of communication skills.

5. Plenary Debriefing
When all students have presented, the associate directors and the business communication instructors debrief prior to a plenary debriefing with all MSc students. The main objective of the debriefing is to provide the students with detailed feedback on the presentations, to appraise the communicative competence of students on a strategic issue as well as to give the floor to the company to ascertain the feasibility and viability of the solutions put forward by the students.

In the next section, we will look at the student, instructor and company perception of the LCS approach.
Perception of LCS Stakeholders

Here we will discuss the student perceptions gathered via questionnaire and instructor and company perceptions gathered via interview. Out of a total of 250 students, 150 completed an online questionnaire (60% response rate) and the corporate directors and business communication instructors were interviewed.

When asked if the students had enough information to solve the case study, 61% felt that they did not have enough. 86% felt that the LCS is more engaging, 85% felt that it helped them link theory and practice and 85.9% felt that it helped them integrate knowledge from other disciplines. Many reported that the live case involved more research, information gathering and analysis (84.5%).

Regarding the main skills acquired during the live case, the students reported an array of skills to include communication; analysis; research skills; group work; summarizing and structuring ideas and information; presentation skills; team-working; teambuilding and leadership skills; critical reasoning; interpersonal and people skills; multitasking; interacting; collaborating with and understanding others; time management; innovation and creativity; the ability to use theory on practice; active listening; organization and coordination; time management to include working to a tight deadline and under pressure; working within multicultural environments and with different MSc students; big picture thinking; public speaking and convincing others; and decision-making. They also reported learning more about marketing and strategy and developing qualities such as patience when working with different nationalities; rigour and attention to detail; efficiency and speed. They also appreciated the opportunity to attain a better understanding of a previously unknown topic and the possibility to use their prior disciplinary knowledge to bring to bear on a new industry.

Concerning the advantages of the LCS, the students were satisfied with the real nature of the case: “It is more engaging since we know there is a real issue at stake”, that offered them interaction with their peers and an entrepreneur: “we can share information with the founder”, whereby they are “more involved in offering a proper analysis with tested ideas to the company”. The adjectives that the students used to describe the LCS include challenging, engaging, new, real, concrete, motivating, business-orientated, professionalizing, practical, tangible, topical, current, useful, valuable, interesting, relevant, complex, memorable, committed, factual, and more efficient. The students felt that they were more involved as they had “responsibility towards the company you are working for” and “had the opportunity to explain a real decision-making process”. The LCS enabled them to ally prior knowledge and theory and practice and better understand a current market. They found it easier to measure the impact of their work due to the presence of the associate directors. They also stated they had more freedom to be innovative in problem-solving. They also felt that they were useful: “you feel you could have an impact - feeling of doing something useful while working on the case”, and felt their work could have an impact and was appreciated. They declared that the pressure was increased as the case involved real actors and that this experience prepares them for their future careers: “it is a real case in the reality, it’s very relevant. If we work in future, we will meet lots of cases like this. So it’s a good practice for us” and this type of case enabled them to test their competencies out on a real situation outside the academy: “More engaging, more practical, opportunity to meet business people outside the school domain”. They also appreciated the immediate and real feedback afforded through the LCS and the fact that there was no right or wrong answer, which meant that there was room for creative and innovative solutions.

Concerning the disadvantages of the LCS, some students felt that they did not have enough information, not enough time: “it takes too much time”, company knowledge or experience “not enough information, do not see the situation from the prospect of the company, not enough experience to solve the whole case” to answer the questions correctly. They found the LCS more complicated, complex, hard, difficult, requiring more research, had more variables to take into account and the data was hard to find. They referred to the idea of confidentiality on behalf of the company and how this could be a problem: “Due to business secrecy, “interesting” cases may not be disclosed by companies at that moment”. They felt that the LCS did not have one correction “no correction if the case is a current problem & hard to have hindsight” but that there were no right or wrong answers, which was disconcerting: “Want to find the right answer even when there is no right answer”. Many students expressed the idea that they had the impression that they were working for free to provide consulting ideas for the company. The students spoke a lot about having to work on assumptions: “our recommendations are based on assumptions and we have the feeling not to be very professional”. They were also frustrated when no ideas were coming to mind and aware of the pressure of the real professional big brother watching over them: “We are more easily disappointed when no interesting ideas came to mind since we need to provide real solutions to real issues” and “pressure because a person from the company is going to judge us on the work”.

83% of those questioned preferred a LCS over a TCS. The students preferred a LCS for the real learning opportunities that these afforded. Some of the adjectives they used include challenging, relevant, useful, helpful, lively, fun, thrilling, engaging, interesting, interactive, demanding, valuable, enjoyable, concrete, etc. They made a strong link between the LCS and what would be required of them in their future jobs and careers: “Yes because it is good to work on live case since we will be soon in real work situation with issues to solve” and “It is great to be able to work on real case because we will maybe have to face those problems in our
Advice for those considering the LCS Method

For those who would like to integrate LCS into their teaching, they need to consider some of the following issues:

1) Selection of the company/sector and product. The company you select must illustrate the concepts you intend to teach and integrate nicely into your course objectives. You should ask yourself some of the following questions: Does the company already have a strong relationship with your business school? How well known is the company to your students? How interesting is the sector/product/company?

2) Involvement and commitment of the company to the LCS. The company must be 100% committed. To ensure complete commitment, it is best to approach the CEO of the company as the person can mobilise the staff resources you require and give the students the possibility to ‘think like a leader’.
The company representatives and CEO must have the time to prepare the case, deal with student questions, attend student presentations, provide process and outcome feedback to students and offer some kind of prize to the best ideas.

3) Relevant information on current problems. The LCS problem must be current and one that the company is grappling with at the moment and not an issue that they have already been working on for some time. The company must also find the right balance between too much information and not enough as too much impedes student creativity as they just regurgitate the already given information; and too little will frustrate the students and result in perceived failure of not carrying out the brief.

4) Confidentiality. You need to ascertain what information you can share and discuss with your students and what must remain confidential. Working with top management enables you to deal with confidentiality more effectively.

5) Timing and pre-planning/preparation. You must begin early to pre-plan and be aware that this is very time-consuming. You must build in flexibility into your work process as in a real company problems solve themselves or are solved, so that the problem identified at the beginning of the project may not be the problem given to the students to work on.

6) Structured LCS with detailed feedback. The LCS must be as structured as possible and time must be made available for both process and outcome feedback. Students expect both and want to ensure that their extra effort is rewarded by instructor and corporate follow up and detailed feedback of their recommendations.

Conclusion
The objective of this article was to present the LCS theoretically as a business education teaching method with high experiential learning potential. The various advantages of this approach were outlined to include the development of various skills, the linking of theory and practice, the increased student motivation and engagement and the responsibilisation of students to be held accountable for their positions and opinions for example. Some of the disadvantages of this approach include its time-consuming nature for lecturers and the client, the issue of confidentiality and the availability of managers to commit themselves to such an endeavor. A LCS process as part of a Business Communication workshop was described in five stages: 1) pre-planning; 2) material development, 3) CEO presentation, 4) student teamwork; and 5) debrief. Student, client and instructor perceptions revealed general satisfaction with this approach but with some concerns expressed. The students were concerned about having enough information, confidentiality, the fact that they were working for free, and the student intimidation when presenting in front of real company executives. The client’s concern was linked to the time lag (in their words – “time to market”) between the initial meetings with the business school and the student presentations. The instructors were more concerned by the open nature of the LCS approach, which could leave students frustrated. In light of these concerns, five pieces of advice were given namely 1) the importance of company selection; 2) the corporate involvement; 3) the requisite balance of information; 4) confidentiality; 5) the timing and in-built flexibility; 6) and the structuring of the LCS and the feedback.

References


The Virtual Business – Bringing Reality into Studies and Enhancing Student Learning and Employability

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Abstract: Business Analysis, Quantitative Methods, Quantitative Analysis or variants thereof are modules studied by Business students at most Universities throughout the UK. Traditionally the focus has been on the methods and the calculation processes of the analysis. With developing technologies we believe that managers and captains of industry are required to focus more on the IT skills and interpretation of the analyses rather than the calculation. Some years ago we designed a module which incorporated the use of a Virtual Business to help students engage with analysis. Several years on now this paper describes how this module has developed since its inception, what impact it has had on students and what employers and industry partners’ feedback has been. We have also looked at how we are hoping it is going to continue evolving.

Introduction
Business Analysis is a module that is studied by close to 900 first year students of Business or Accounting at Sheffield Business School. The module is a year long core module for level 4 (first year) students and is designed to introduce them to basic statistical concepts and their practical applications in a business setting. Historically students have found the module difficult and we have endeavored to make the module more relevant to today's students whilst still encompassing the skills needed to address the employability agenda. The module underwent a major overall a few years ago in response to a combination of a revalidation of the module and a result of feedback/module results. The current module integrates analysis using IT with the use of a resource which is a virtual business built to replicate a chain of department stores. The focus is on the use of IT as a tool to aid in the analysis, whilst giving students a real context in which to do the analysis.

Given the varied backgrounds of our business students, they often have difficulties with the numerical side of things. There are many reasons for this including fear, lack of knowledge, lack of confidence, rustiness from lack of recent use and not seeing relevance. The students who take this module also have a wide variety of prior experience in IT, maths and statistics. Often they undertake their course of study without realizing how much numerical and IT work is involved.

Challenges
The first challenge we face is the fact that the module combines mathematical analysis with the use of IT. Students often have a dislike/difficulty with one or both of these areas and hence this has an impact on student's willingness to engage with the module.

Secondly, depending on what the students are studying, some do not perceive that analysis and spreadsheet skills will form a part of their role post graduation, hence they do not see the module as relevant.

Thirdly the employability agenda is something that all modules must consider when looking at course and module content. At Sheffield Business School, the philosophy is that key skills should be acquired within the modules, rather than in separate modules. The use certain software and spreadsheet packages is considered key by employers and so increase our student's employability over other students. The challenge is to keep our students up to date with current IT available in order to maintain their competitive advantage.

Virtual Business
This is a replica company (called the business) which is a department store with a number of branches throughout England. It is based loosely on a couple of well known retailing companies and the managers of those companies assisted in the initial generation of sales, financial and operational data to add realism. The sales figures are now updated annually using week by week sales figure changes from a leading retailer. The reason for its creation was to be able to provide a context for students to work within and with data that is generally internal to the organization and hence seen to be “commercially sensitive”. The virtual business, consists of a company website and a company intranet site which holds the detailed data and company information and this is held on our VLE sites for the Business Analysis module. The assignments are built around real analysis that students may be expected to do in the context of an organization.

The learning, teaching and assessment model/pedagogic issues
The virtual business provides business analysis students with a resource that supplies data, issues and problems on which to base assessment of the quantitative analysis and IT skills and methods.
The module has 8 study blocks each that last for 2 weeks. There is a structured pattern of delivery, which is principally the same for each topic. The lecture (3 lectures for the whole cohort) starts the study block with an introduction to the topic and the more theoretical content but also an element of practical content that feeds into the computer based workshop. The work shop (1.5 hours, computer room based) is where the more practical IT skills are developed through practice exercises which feed back into their knowledge and understanding. The knowledge and skills developed in those workshops then feed into the seminar where the focus goes back to understanding, reflecting and consolidating understanding. The seminars provide an opportunity to discuss, examine work produced and interpret findings. The delivery sessions are made as interactive as possible and include team work, presentations and feedbacks.

Learning Outcomes
According to Jarvis et al (1999), learning outcomes, in a general sense, are statements of learning that one is expected to achieve as a result of completion of a module. Learning outcomes serve two purposes, they not only impart information to the learner but also determine how learners make sense and construct usable knowledge from the presented information.

Business Analysis's learning outcomes fall into four categories as shown below.

<table>
<thead>
<tr>
<th>Aspects of problem solving</th>
<th>Data gathering, construction and interpretation of foundation statistics</th>
</tr>
</thead>
<tbody>
<tr>
<td>Select appropriately from a range of quantitative methods, approaches which will assist in the analysis of business problems</td>
<td>Construct models and apply the selected quantitative methods for the provision of management information in a range of business cases</td>
</tr>
<tr>
<td>Use of Information and communication Technologies</td>
<td>Interpret, extrapolate and evaluate appropriately the outcomes of the quantitative analysis</td>
</tr>
<tr>
<td>Use Information and Communication Technology (ICT) appropriately and effectively in typical business applications</td>
<td>Present in an appropriate way the results of the business analyses and investigations</td>
</tr>
</tbody>
</table>

In line with the university’s LTA strategy, tutors generally act as facilitators, the atmosphere in the workshops and seminars are friendly and students are asked to interact and participate in achieving the intended learning outcomes.

Assessment strategy
According to Race (1998), assessments and related activities should be timely and should relate to the learning outcomes. The assessment package for business analysis is related to the learning outcomes and the various activities can be mapped directly to the quadrants in the outcome grid. The assessment strategy for this module is a mixture of team and individual work. It also has self-assessment tests to round off each study block, so that students can assess their understanding and a two hour end of the year exam. The whole module is worth 20 course credits and individual break-down of the different assessment tasks is given in the appendix.

There are 2 main projects, one per semester. The module uses a problem based approach to learning (Boud, D and Feletti, G.I., 1997) and the knowledge, understanding and skills development are introduced and practiced in order to complete the project work. The pedagogic model on which the module is based is shown on the next page:
Figure 1: The pedagogic model for the Business Analysis module

The two projects provide the impetus for the module and cover all the learning outcomes. Each project runs over a semester and students learn the methods and undertake the practice in the workshops for each study block. They build the project work up bit by bit with regular formative feedback on their progress to allow them to develop their skills and improve their work.

In the first project, they work in groups of 3 or 4 and are a department management team (each being a section head) in one of the virtual businesses branches. They are required as a group to report on their sections and departments performance in an annual review in front of two tutors, who play the role of management visiting from head office. They are required to look at their section/department performance as compared to the previous 3 years, other departments in the same store and other stores. They are also required to find out about the external market in terms of competition and market intelligence. They do this by means of an A3 poster and a brief 5 minute presentation of their findings. They obtain the data from the business’s websites and external web sites / commercial databases.

The poster requires the students to calculate comparative statistics in order to judge the performance of their department. They use excel to carry out the calculations and produce relevant charts and graphs. Part of the task is to pick the most relevant information and calculations to show their department’s performance to its best, by combining and including data on the graphs to make it visually understandable. Obviously the size of the poster means they have to think carefully about what to display and how. They get feedback in the seminars but they also get the opportunity to see past work and mark it so they get a feel for what they need to include.

For the second project, students work in pairs and they have to analyse a business proposal regarding a future potential development opportunity. For this project student use simple time series analysis to forecast future sales. They then use these figures along with other summarized data in financial models to produce a cash flow for the potential developments. They further take into account the time value of money in order to explore the proposal using net present values and performing sensitivity analysis before recommending a course of action. Again there are plenty of opportunities for formative feedback to improve the accuracy of their analyses.

As well as the formative feedback opportunities given particularly in the seminars, there are weekly drop ins in computer rooms in which students can seek further help and support.

Evaluation

The concept of ‘performativity’ from, Barnett et al (2001), notes that today’s society can be termed as a ‘performative society’. They state that the principle of performativity relates to the view of how the society has shifted its focus to performance rather than knowledge. It is about doing rather knowing and understanding. For example, they quote that “that in history, skills that were once acquired to become a historian are now treated as transferrable skills and appropriate for a variety of occupations” (Barnett et al, 2001, pp. 438).

Higher education has adapted to this shift towards the performance based view and its relationship to the labour market. Changes in curriculum relates to these shifts, for example, table 2 (adapted from Barnett et al, 2001, pp. 439) notes the differences in what might be considered as a traditional curricula to a more emerging curricula.
The change in shift towards issue based learning is also felt at subject levels, for example, the above module sits in the subject area of business information systems and the current recommend curricula takes into account the performance based nature of learning (Gorgone et al, 2002) and is reflected in the exit characteristics of graduates from the BIS stream. The graduates are expected to versed in topics including, technology, business fundamentals, analytical and critical thinking and inter personnel skills.

From an evaluative point of view, for a module like business analysis, it is imperative to know whether it is up to the changes in the modern day curriculum development scenario, in fact it must answer the three key questions:

- Whether the module is line with emerging curricula?
- Whether the module’s curriculum meets the recommended BIS and HEA standards?
- Whether the module contributes in producing graduates with the above exit characteristics?

Measuring the curriculum decisions against the above questions, firstly, the module covers the majority of the areas of emerging curricula. It is fundamentally an applied module with problem solving as the main feature. It is issue based and is mainly based on the idea of knowledge as a product. In relation to the recommended subject curricula guidelines, the module’s curriculum matches every area given in fig x. The module’s curriculum has a good deal of IT learning element. Students have to learn MS Excel Skills and use the skills to develop charts and financial modelling. They have to present their charts and modelling in a verbal presentation and they are encouraged to work as team in their assessment tasks. Their group work enables them to practice their inter-personal skills and deriving correct decisions from raw data tests their critical and analytical skills. The other modules in the course complement their need to understand the fundamentals of business and as a starting step; this module is a fine introduction to business statistics and its interpretation in a business setting.

In answering the second question, the looking at the model proposed by HEA and curriculum guidelines recommended for BIS subject area, it can be seen that the module is built on sound design principles. The learning outcomes are learner focused with clear statements concentrating on deeper learning rather than superficial outcomes. Similarly, learning and teaching activities are designed to be interactive, with tutors acting as facilitators. In terms of assessment strategy, the module has a range of tasks (detailed earlier) with each task...
is designed with an intention to test whether the students have achieved the intended learning outcomes. The student support aspects of the module are also well designed. Formal and informal student support mechanisms are place, which normally allow the students to get in touch with the teaching team for pedagogical and pastoral support. In total the module actually contributes to producing graduates with exit characteristics as determined by the subject curriculum standards and the labour market.

Various changes have been made to the module since its inception. The number and frequency of assessment tasks has changed and is set to change again in the coming academic year. All of the changes have been in response to student, staff or both, feedback.

The module has been evaluated in several ways:

- Analysis of student performance (marks/pass rates)

<table>
<thead>
<tr>
<th>Figures are based on complete profiles only, i.e. students who attempted both components.</th>
<th>2010/11</th>
<th>2009/10</th>
<th>2008/09</th>
<th>2007/08</th>
<th>2006/07</th>
<th>2005/06 (internal compensations removed)</th>
<th>2004/05</th>
<th>2003/04 (no Finance students)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Number completing the module</td>
<td>515</td>
<td>494</td>
<td>475</td>
<td>590</td>
<td>473</td>
<td>491</td>
<td>525</td>
<td>393</td>
</tr>
<tr>
<td>% pass 1st time</td>
<td>94</td>
<td>93</td>
<td>86.3</td>
<td>81</td>
<td>73</td>
<td>81</td>
<td>91</td>
<td>87</td>
</tr>
</tbody>
</table>

As you can see the numbers completing the module have increased and the first time pass rate has also increased and maintained a high level.

- As a part of regular module review (through end of year questionnaires)

Student feedback is that they can see the usefulness of the module. They find they can use the skills developed in other modules and other aspects of their lives. They enjoy that the assignments are set in a business context. They enjoy the fact that they are dealing with data that is based on real organisations and that the data reflects what they hear about in the media.

- Through employer feedback (placements, mainly anecdotal)

Placement partners are identifying the excel skills as being a key skill required by them. One placement partner has sent potential placement students this year two years of data and asked them to analyse their performance in the market and to put together a brief presentation of what actions they should take to stay at the top of their game. This task is basically a hybrid between our two projects.

Conclusions

This module was designed and refined to meet the challenges identified. The approach is a problem based approach to learning. The project work students perform shows good and positive student engagement. Using a spreadsheet package to do the calculating and the structuring of the analysis is what would happen in the business world. This allows students more time to focus ion the results of their analyses and the interpretation. The virtual company poses more realistic scenarios that students can see as being real world decisions.

As already mentioned there are further changes are afoot. Firstly in terms of assessment, the number of summative tasks is going to reduce again in the coming year in response to a University wide decision. Certain summative tasks will become formative but the two main tasks will remain in place.

Further funding is to be sought so that the business can be expanded and developed further so that more modules can make use of the data available as it is believed this will give the business more applications and realism.

One thing we have to be aware of is losing sight of the theoretical background to student's studies and the deeper thinking skills associated with higher education. The module is problem based/ action orientated and we must be careful not to just be training students on how to do things but rather they should be thinking about why they are doing things. Whilst technologies change, the empirical theories that underlie what they are studying do after all lay the foundations of knowledge. Linked to this is also the fact that with the deeper learning skills comes the creation of independent, life long learning?

References


Appendix

<table>
<thead>
<tr>
<th>Entry No.</th>
<th>Description</th>
<th>Individual/Group</th>
<th>Submission</th>
<th>% Contribution to Coursework Portfolio</th>
<th>Aspects of Learning Outcomes assessed</th>
</tr>
</thead>
<tbody>
<tr>
<td>0</td>
<td>Introductory quiz</td>
<td>Individual</td>
<td>Submission is not required unless feedback is required</td>
<td>0</td>
<td></td>
</tr>
<tr>
<td>1</td>
<td>Set of 10 self-assessment tests</td>
<td>Individual</td>
<td>submitted on line - various dates see week-by-week schedule</td>
<td>20</td>
<td>2, 3 and 4</td>
</tr>
<tr>
<td>2</td>
<td>Overall class attendance</td>
<td>Individual</td>
<td>n/a</td>
<td>5</td>
<td>1.4</td>
</tr>
<tr>
<td>3</td>
<td>Poster presentation (Project 1)</td>
<td>Team (4/3)</td>
<td>See Week-by-Week Schedule</td>
<td>25</td>
<td>1.5</td>
</tr>
<tr>
<td>4</td>
<td>Excel on line test</td>
<td>Individual</td>
<td>Workshop of Study Block 5</td>
<td>15</td>
<td>2, 3 and 5</td>
</tr>
<tr>
<td>5</td>
<td>Project 2 Analysis</td>
<td>Team (2)</td>
<td>Workshop of Study Block</td>
<td>15</td>
<td>1.4</td>
</tr>
<tr>
<td>6</td>
<td>Project 2 report</td>
<td>Team (2)</td>
<td>See Week-by-Week Schedule via Ulg</td>
<td>20</td>
<td>4 and 5</td>
</tr>
</tbody>
</table>

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A Re-examination of learning styles and the effectiveness of video screen capture technology

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Introduction and Purpose
Failure rates in introductory Finance courses can be significant and like many mathematically based subjects, classroom instruction is often critical for success. The common pedagogical tool employed in such subject areas, consists of the instructor reviewing a formula or application in handwritten steps on a chalk or white board, while simultaneously providing a verbal description.

The advent of tablet PC’s and electronic ink, combined with video screen capture (VSC) software, however, allows for the easy and cost effective recording of both visual and auditory components of the development of a mathematical concept. A number of recent studies have indicated that learning modules created with VSC and tablet PC technology can be of significant aid in cognition (Folkstand & De Miranda, 2002; Bonnington et al, 2007) and particularly for mathematically based material (Aminifar et al., 2007) Similar benefits have been noted in the use of FlashTM videos for homework solutions (Grinder, 2008).

The value of VSC modules for the instruction of mathematical material has recently garnered significant public attention in the United States (Thompson, 2011; Urstadt, 2011) with the creation of the internet based Kahn Academy by the former hedge fund employee, Salman Kahn. Kahn started employing VSC modules in 2004 to aid his 13 year old cousin in comprehending high school mathematics. His approach to teaching mathematics grew in popularity and in 2009 he established Kahn Academy. By 2011 the non-profit, freely accessible Kahn Academy contained approximately 2,400 VSC modules on high school mathematics and other topic areas. Kahn Academy is being referred to as a revolution in American education (Urstadt, 2011) and in 2010 Kahn received $1.5 million from the Bill and Melinda Gates Foundation and $2 million from Google Inc. in support. In some cases secondary school teachers in the United States have substituted the Kahn Academy VSC modules for textbooks.

The use and effectiveness of VSC modules gives rise, however, to several pedagogical research questions, which Cyr (2011) attempted to address and which the current study builds upon. With the goal of examining several hypotheses, Cyr (2011) surveyed 86 MBA students enrolled in a 13 week introductory Corporate Finance course with respect to their use and perceived value of VSC modules. The modules were designed to provide proofs and applications of relatively difficult financial concepts. The 86 students were comprised of both native English language speakers and/or students with a high proficiency in English, and a cohort of international students with lower English language proficiency. In addition to examining their performance on examination questions covering related material the study examined several hypotheses around the perceived effectiveness of VSC modules relative to the student’s primary learning style as defined by Gardner (1983). Unfortunately statistical significance, particularly in terms of primary learning style was difficult to obtain given the relatively small sample. The current study extends the analysis of Cyr (2011) with an additional cohort of students providing for a total of 167 respondents.

Theoretical Framework
The literature on the concept of multiple intelligences and its potential impact on learning has received much attention since the original work of Howard Gardner (1983). In total Gardner defined nine “intelligences” or learning styles (Gardner, 1983; 1999) and postulated that they relate to the methods in which an individual best receives and retains information. Although the theory of multiple intelligences is not without its critics (Waterhouse, 2006a, 2006b; Stahl, 1999) it remains a popular categorization applied in many educational settings (Berk, 2008).

It would seem reasonable to believe that individuals exhibiting a logical-mathematical learning style would tend to be inherently oriented towards the mathematically based material typically presented in an introductory Finance course. The question arises as to whether VSC modules would also be of value in helping individuals exhibiting other learning styles to master such material. In particular, given the nature of the modules, it is possible that they may also be valuable tools for individuals with linguistic, kinaesthetic and perhaps visual learning styles. In addition their value to international students may also be significantly higher.

Instrument and Data
Three VSC modules were created, with electronic ink and screen capture software, of the visual and auditory proof of two relatively difficult but related concepts in introductory financial mathematics and provided to
course participants. The VSC module relating to the first concept was provided along with a classroom exposition, while the videos relating to the second concept were not.

At the end of the course students were requested to fill out a survey instrument relating to their stated frequency and nature of use of the videos, the perceived usefulness, and whether an accompanying classroom exposition was necessary. A learning style inventory, based on Gardner’s multiple intelligences, was also included as part of the survey.

The data consists of the inventory of learning styles as well as the survey of stated use, perceived usefulness and subsequent testing performance in regards to VSC modules as an instructional tool. The data is derived from two separate years of students enrolled in the course resulting in approximately 167 survey participants with results for both domestic and international students.

**Results and Conclusions**

Cyr (2011) found some hierarchy in terms of the perceived value of the VSC models, with respect to learning styles and international students; however, statistical significance was limited due to the relatively small sample. The additional data in the current study increases the power of the statistical tests.

**Educational Importance**

The rapidly growing interest in the educational technology of VSC modules for the teaching of mathematical based material at all levels of education gives rise to several research questions as to the reasons for its popularity and perceived effectiveness. The current study attempts to address these questions within the context of learning styles. An examination of the role learning styles play in the use and perceived value of VSC models can aid in determining their optimal place in the educational endeavour.
Using voice files to provide feedback to students on assessed work – an evaluation of efficiency and effectiveness perspectives

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Abstract: Sizeable increases in student numbers have placed traditional pedagogical approaches under strain in terms of delivering a high quality student experience which effectively supports individual learners in their personal educational journey. This paper will examine a particular method of providing assessment feedback to students on assessed work – via MP3 voice files – and will explore both the efficiency and effectiveness dimensions of this approach: the number of words produced by the tutor for each minute devoted to the feedback task; a comparison of the time used in the production and distribution of feedback to students (paper-based versus electronic); the extent to which students found assessment feedback supported their learning; and the ease of producing feedback from a tutor perspective. The paper concludes that the provision of assignment feedback to students using voice files is no less efficient compared to the use of traditional written feedback sheets, but is far more effective in supporting student learning.

Introduction
The growth in popularity of business education and the concomitant rise in the numbers of students studying business courses has presented business educators with a number of problems and issues they need to confront in their professional practice. Sizeable increases in student numbers has meant that traditional pedagogical approaches have been under strain in terms of delivering a high quality student experience which effectively supports individual learners in their personal educational journey. Lecture theatres are now often bursting at the seams to accommodate the number of students enrolled in classes, and seminar groups have lost the intimacy of a small gathering where participants can be afforded both the space and time to be guided by tutors in a personal manner. Indeed, with pressure on institutional funding streams, it is often the case that per capita funding is in decline, resulting in less class contact or supervised support for each student, with business educators struggling to find ways to maintain the personal dimension of learning within a mass higher education system.

In this context the issue of assessment feedback has proven to be a particularly challenging one for business educators. Both formative and summative feedback by tutors on assessment tasks undertaken by students is seen as crucial in helping learners develop from novices to experts within a particular disciplinary area. The growth in quality assurance in the higher education sector has resulted in a need for tangible and evidenced feedback, and a plethora of associated processes to ensure that assignment feedback is fit for purpose – moderation of feedback and marks awarded, external examiner comments on feedback, student evaluations of the useful of feedback provided, to name a few. However, this has often resulted in an elongation of the feedback process (the amount of time it takes from submission of an assignment by a student to receipt feedback from a tutor) and a specific approach to the format and articulation of feedback (statements linked to assessment criteria written in academese or some form of subject disciplinary code) which students find difficult to interpret and understand. The result has often been significant dissatisfaction of students with the assessment feedback process – for example, in England, questions relating to ‘assessment’ in the National Student Survey receive the lowest satisfaction scores compared to other categories of questions.

This paper will examine a particular method of providing assessment feedback to students on assessed work – via MP3 voice files – and will explore both the efficiency and effectiveness dimensions of this approach. Student evaluations (student questionnaires) of their assessment feedback on an Intermediate Microeconomics module will be compared and evaluated: in 20010-11 written feedback was provided to students on a paper they submitted using a standard feedback sheet; in 2011-12 oral feedback was provided via the use of an electronic voice file. Descriptive statistics will be used to compare the ways in which these two forms of feedback were received by students, and the qualitative comments of students provide more detailed insights into the extent to which oral feedback was perceived as being supportive to student learning on the module.

Literature review
There is now a voluminous literature on assessment design and assessment feedback. It appears that every aspect of assessment strategy has been investigated by researchers, reflected upon by practitioners, and pronounced upon by policy makers. Unfortunately this has not resulted in widespread satisfaction amongst the student body with respect to the timeliness and usefulness of the assessment feedback they receive. The literature review below is highly selective but indicative of the sub-strands that can be found in the writing on assessment.
Feedback from teachers to students is seen as a key requirement to facilitate student learning (Black and William, 1998; Ricketts and Wilks, 2002, Ramsden, 2003, Brown, 2007, Hattie 1987, Gibbs and Simpson 2004, Hughes 2011). In a somewhat cybernetic formulation Ramaprasad has defined feedback as ‘information about the gap between the actual level and reference level of a system parameter which is used to alter the gap in some way’, (Ramaprasad, 1983, quoted in Tong, 2011). Feedback is usually divided into summative feedback (that substantiates or justifies a mark or grade) or formative feedback (that which guides students to understand the strengths and weaknesses of their assessed submission or activity with aim of promoting learning and improvement). Recently there has been an interest in the notion of ‘feedforward’ (Brown, 2007) i.e. guidance provided to students on how they can make continuing and enhancing actions to improve the quality of their work in relation to defined learning objectives.

In terms of designing assessment feedback, Nicol and Macfarlane-Dick (2004, p. 2) have identified seven principles of good feedback; it:

1. Facilitates the development of self-assessment (reflection in learning)
2. Encourages teacher and peer dialogue around learning
3. Helps clarify what good performance is (goals, criteria, standards)
4. Provides opportunities to close the gap between current and desired performance
5. Delivers high quality information to students about their learning
6. Encourages positive motivational believes and self-esteem
7. Provides information to teachers that can be used to help shape the teaching

Gibbs (2010) has identified the qualities which are important in feedback as:

- Sufficient feedback needs to be provided both often enough and in enough detail
- Feedback should focus on students’ performance, on their learning and on actions under the students’ control, rather than on the students themselves and on their characteristics
- Feedback should be timely in that it is received by students while it still matters to them and in time for them to pay attention to further learning or receive further assistance
- Feedback should be appropriate in relation to students’ understanding of what they are supposed to be doing
- Feedback needs to be received and attended to
- Feedback should be provided in such a way that students act on it and change their future studying

(Summary of these articles produced by Helen Puntha and Wendy O’Neill at http://www.ntu.ac.uk/cadq/quality/res_learn_teach/en-us-113615gp.html, last accessed 16-3-12).

Summarising literature from Race (2006), Irons, (2008), Juwah et al (2004) and Race 2001), Hatziapostolou and Paraskakis (2010, p 111) conclude that in order to be effective, feedback on formative assessment ‘needs to possess a number of qualities: it needs to be **timely**, **constructive**, **motivational**, **personal**, **manageable** and **directly related** to assessment criteria and learning outcomes’ (emphasis added), and suggest that a feedback strategy should encapsulate both the contents of the feedback and the methods used to communicate to students. This latter point is important – as the authors note there is considerable experience (and frustration) in the university sector of students not retrieving assignment feedback after tutors have spent painstaking hours producing this. One explanation of this reluctance on the part of students to retrieve and search out feedback on assessed work could be related to its perceived usefulness. Brown et al (2005) summarise their survey of Open University student perceptions of feedback in science subjects in the UK (part of the FAST project):

“Although the feedback is returned within 3 weeks, its value is limited because it is content-dominated, and no longer relevant to the topic being studied. Comparatively little of it feeds forward to future assessment tasks. The strong content focus to feedback reflects the emphasis within tutor mark schemes but the absence of clear criteria for students against which their work will be assessed leads to the feedback also being omissions-dominated and to dissatisfaction among students.

The overall conclusion from this study is stark. If feedback does not aid learning and understanding and does not feed forward, it has limited value, even if crafted carefully and provided quickly”. Brown et al, (2005) p. 7.
And Glover et al (2005), reflecting on findings from a different group of students at Sheffield Hallam University, UK, which was part of the same (FAST) project reflected:

“Feedback often consisted of unhelpful comments which they did not understand. There was a general lack of detailed explanation of what students had done wrong, and sometimes tutors provided no explanation. Purely negative, or non-constructive remarks (eg poor; lazy), were not helpful to students at all.” Glover et al (2005) p. 3.

More recently, the National Student Survey in the UK provides a sector-wide insight into the perceptions and experiences of students in the English higher education sector. The survey invites students in all English universities to respond to a standard questionnaire of 21 questions plus some additional questions that are selected and framed by each institution in relation to their specific and individual priorities. Questions are linked to particular themes e.g. ‘Teaching on My Course’, ‘Academic Support’, ‘Learning Resources’, and there is a category of questions on the theme of ‘Assessment and Feedback’. The latter group of questions has habitually received the lowest satisfaction scores since the NSS began. For example, in 2011 the overall satisfaction rates for the different categories of questions for university students were as follows:

<table>
<thead>
<tr>
<th>NSS Category</th>
<th>Per centage agreed</th>
</tr>
</thead>
<tbody>
<tr>
<td>Teaching</td>
<td>85%</td>
</tr>
<tr>
<td>Assessment</td>
<td>67%</td>
</tr>
<tr>
<td>Support</td>
<td>77%</td>
</tr>
<tr>
<td>Organisation</td>
<td>75%</td>
</tr>
<tr>
<td>Resources</td>
<td>81%</td>
</tr>
<tr>
<td>Development</td>
<td>80%</td>
</tr>
</tbody>
</table>

The satisfaction scores for the five questions in the category of Assessment and Feedback were as follows:

<table>
<thead>
<tr>
<th>NSS Question and question number in survey</th>
<th>Per centage agreed</th>
</tr>
</thead>
<tbody>
<tr>
<td>5 The criteria used in marking have been made clear in advance</td>
<td>73%</td>
</tr>
<tr>
<td>6 Assessment arrangements and marking have been fair</td>
<td>74%</td>
</tr>
<tr>
<td>7 Feedback on my work has been prompt</td>
<td>62%</td>
</tr>
<tr>
<td>8 I have received detailed comments on my work</td>
<td>66%</td>
</tr>
<tr>
<td>9 Feedback on my work has helped me clarify things I did not understand</td>
<td>61%</td>
</tr>
</tbody>
</table>

Source: National Student Survey 2011, HEFCE, UK.

It can be seen from the above tables that the lowest scores in student satisfaction relate to assessment and feedback practices, and that within this general category students report the lowest satisfaction with the ‘fitness for purpose’ of feedback i.e. with its usefulness in helping students clarify things they did not understand so that they can enhance their learning and make progress in their studies.

The above findings encourage reflection on the forms in which feedback is presented and the characteristics (style, genre, linguistic conventions etc) of feedback communication by educationists, and mandate experimentation with different ways of providing assessment feedback with the aim of making this both more useful and meaningful to students in the context of progressing their learning. It was in this context that the author evaluated the provision of feedback via voicefiles (instead of written comments) on student papers that were submitted as coursework assessment on a level 5 (second year) Intermediate Microeconomics module in semester one of academic year 2011-12.

**THE ASSIGNMENT TASK**

As part of the assessment strategy for the module students are required to produce a written paper of approximately 2,000 words. The brief for the assignment was as follows:

“For your individual written assignment you will choose an economic issue or problem which can be analysed or evaluated using microeconomic principles and analysis. You will need to research this issue or problem, using relevant text books, journals and periodicals, and present an analysis which suggests how microeconomic analysis contributes to both an understanding of the topic, and a range of possible solutions or responses from the perspective of government policy. You are not required to advocate a particular solution/response, but to examine the strengths and weaknesses of the possibilities you have researched i.e. to adopt an evaluative approach.

This assignment is a form of inquiry-based learning, where your learning is motivated by an issue or problem that interests you, and you develop a deeper understanding of this as you research this area, review competing perspectives, and receive feedback from your tutor.”

The assessment criteria for the written paper are reproduced in appendix one.
The feedback process

All student written papers were read and graded by the tutor. Feedback comments were then dictated to a voice recorder which produced an MP3 file. Comments were made in relation to assessment criteria which had been distributed to students as a guide to writing their paper (appendix one). As well as the voice file which was produced for each student, the relevant cells in the assignment feedback sheet were shaded to indicate the standard of the student paper in relation to each of the assessment criteria. After a moderation process, both the relevant MP3 file and completed assessment matrix was e mailed to students using the Blackboard virtual learning environment.

Evaluation of the feedback process – tutor perspective

The voice files were, on average, of 5 minutes duration. When these were completed they were backed up on a PC for safety reasons. In addition, assessment matrix sheets were also completed for each student, and these took approximately 1 minute to complete. The author believes there is no difference between the time required to produce the voice file/assessment criteria sheet and a written feedback/assessment criteria sheet based on his experience. However, and this may be an entirely personal issue, the psychological intensity (degree of concentration, stress, and marking ennui) of producing voice files over a prolonged marking period was experienced as much lower compared to producing written feedback for a significant number of papers.

Four voice files were analysed to establish the number of words of feedback recorded in each file. The average number of words was approximately (due to some possible errors of counting) 650. This number was compared to an average of 450 which was the average total for a similar sized random sample of assignments that were provided with written feedback in the previous academic year of 2010-11.

In terms of distributing feedback to students, this was done in an identical manner in 2010-11 and 2011-12 i.e. via e mail and file attachment, and therefore there was no difference in time experienced.

Extremely positive comments were received from the External Examiner for the module, who commented in his report: “An excellent level of individual feedback given through the use of sound files – very helpful to the students in terms of identifying the strengths and weaknesses of their work. The criteria set were clear and the feedback addressed these explicitly – well done.”

Evaluation of the feedback process – student perspective

In semester one of academic year 2011-12 there were 68 modules in Sheffield Business School that reported student experiences via a module evaluation questionnaire. The rank order score for the Microeconomics module for each question/response in relation to the scores of all modules which received student feedback in semester one is indicated below:

Table 2: Rank order of Microeconomics module evaluation responses compared to all semester one modules at Sheffield Business School, 2011-12

<table>
<thead>
<tr>
<th>Module evaluation survey question</th>
<th>Rank order score in relation to semester one modules 2011-12</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 “In this module the lectures helped me understand the subject”</td>
<td>17</td>
</tr>
<tr>
<td>2 “In this module the seminars/workshops/lab sessions were interactive”</td>
<td>14</td>
</tr>
<tr>
<td>3 “In this module I have developed new skills that will be relevant to my future career/employability”</td>
<td>26</td>
</tr>
<tr>
<td>4 “In this module digital technologies have been used to support my learning (Blackboard, voice files, wikis, blogs, DVDs etc)”</td>
<td>6</td>
</tr>
<tr>
<td>5 “In this module I felt well prepared to tackle the assessment tasks that were set”</td>
<td>5</td>
</tr>
<tr>
<td>6 “In this module the feedback I received on assessment tasks was helpful to my learning”</td>
<td>6</td>
</tr>
<tr>
<td>7 “The staff on this module were enthusiastic about what they were teaching”</td>
<td>3</td>
</tr>
<tr>
<td>8 “In this module I have been able to access the library resources I required to support my study (e.g. books, journals, audio visual, online resources)”</td>
<td>4</td>
</tr>
</tbody>
</table>

The rank order scores for the Microeconomics module show a generally good level of student satisfaction in relation to other modules, but this is especially the case in relation to question 6 which concerns the usefulness of assignment feedback. These scores also suggest there was no ‘halo effect’ in the module, with one element of the module experience setting the pattern for other elements.

The positive responses for all 68 modules in semester one 2011-12 are contrasted with those in the Microeconomics module in the table below for the current and last academic year (where feedback was provided in written form rather than via a voicefile), and the scores for question 6 are highlighted:
Table 3: Comparison of positive responses of Microeconomics module with other indicators

<table>
<thead>
<tr>
<th>Question</th>
<th>All modules semester one 2011-12</th>
<th>Microeconomics module 2011-12</th>
<th>Microeconomics module 2010-11</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>85.7</td>
<td>100</td>
<td>82.69</td>
</tr>
<tr>
<td>2</td>
<td>87.97</td>
<td>100</td>
<td>80.77</td>
</tr>
<tr>
<td>3</td>
<td>87.87</td>
<td>100</td>
<td>71.15</td>
</tr>
<tr>
<td>4</td>
<td>80.57</td>
<td>100</td>
<td>82.35</td>
</tr>
<tr>
<td>5</td>
<td>77.81</td>
<td>100</td>
<td>63.46</td>
</tr>
<tr>
<td>6</td>
<td><strong>82.63</strong></td>
<td><strong>96.16</strong></td>
<td>75</td>
</tr>
<tr>
<td>7</td>
<td>93.1</td>
<td>100</td>
<td>88.46</td>
</tr>
<tr>
<td>8</td>
<td>85.90</td>
<td>100</td>
<td>69.23</td>
</tr>
</tbody>
</table>

These results demonstrate a higher level of satisfaction than the average score for all modules in question 6 for semester one 2011-12 and a higher score for the Microeconomics module than in 2010-11 when written feedback (rather than voice files) was used for the student written paper.

On the module evaluation feedback form students were asked to write qualitative comments in relation to the following questions:

1. What two things have had the most positive impact on your learning experience in the module?
2. What two things could be done to improve your learning experience in this module?

Where comments made reference to voice files this has been reproduced in appendix two. Altogether 50 module evaluation questionnaires were submitted by the student group and 33 made a positive reference to the voice file feedback. Two of these are reproduced below to provide a flavour for the different dimensions of the student experience in this context:

“Audio feedback very informative – knew what were strengths and weaknesses – full scope of feedback not simply boxes ticked and one or two lines of...
Voice files very helpful and personal, more comprehensive than written feedback.”

**Discussion**

From a tutor perspective the use of voice files to provide assessment feedback on student papers was concluded to be more efficient and effective compared to a previous practice of providing written feedback: more efficient due to the production of more words of feedback and electronic distribution to students within a similar timeframe, more effective due to students finding this form of feedback more helpful to their learning, and being endorsed by the External Examiner for the module. Furthermore, although this may be a personal issue, the psychological intensity (degree of concentration, stress, and marking ennui) of producing voice files over a prolonged marking period was experienced as much lower compared to producing written feedback for a significant number of papers. From a student perspective, narrative comments gleaned from module evaluation questionnaires and a comparison of quantitative scores from questionnaires compared with respect to the previous year indicate a much higher degree of student satisfaction with the quality and usefulness of feedback provided in this form. In particular, students appeared to be able to ‘understand more deeply’ the key messages included in the feedback, due to the nature of the communication – written feedback often incorporates summary statements and academic ‘buzz words’ which students find difficult to relate to e.g. ‘needs to incorporate more critical analysis’, ‘needs to be more discursive’. Producing feedback in verbal form appears to allow a more detailed and communicative approach to ‘unpacking’ these terms and issues for students which enhances the ability to interpret key elements of feedback. The technology used to produce voice files was cheap and straightforward to use: a plug and play MP3 recorder which produced files that could be e mailed to students. This micro study further suggests the power of harnessing electronic and digital technologies in the context of assessment practices. Objective testing was one of the earliest applications of information technology in assessment (online multiple choice tests which produce instant marks/feedback to students), but digital technologies now offer enhanced opportunities for assessing skills and attributes as well as propositional knowledge – Yakura (2009) for example discusses the use of classroom videotaping to provide students with feedback on interpersonal and process skills in group decision activities and the concomitant benefit of coaching students in ‘visual intelligence’ so they can maximise the learning from such viewing experiences.

**Conclusion**

This evaluation study has demonstrated the power and usefulness of providing verbal feedback for students on their written work and framed this in terms of efficiency and effectiveness perspectives. The implications of the findings are for a wider adoption and use of voice files in the assessment process as this form of feedback appears to have benefits for both students and tutors. It would be useful for further research and evaluation work to explore the nature of how this form of communication is received by students i.e. why students appear to rate
feedback in this form in a positive manner, so that such key characteristics of feedback communication could be emphasised and prioritised in both this and other assessment feedback practices.

References
Race, P. (2001) Using Feedback to Help Students Learn, the Higher Education Academy online: http://www.heacademy.ac.uk/resources/detail/id432_using_feedback

APPENDIX ONE – ASSESSMENT CRITERIA FOR THE STUDENT ASSIGNMENT
1. Identifies a valid question for inquiry / focus, and has clarity of purpose and objectives within the context of the scope of microeconomics. Supports subsequent analysis. Degree of creativity in choice of topic.
2. Demonstrates a critical understanding and evaluation of a range microeconomic theories and concepts relevant to the specific topic.
3. Demonstrates the ability to apply microeconomic theories and concepts to produce a systematic and discursive account.

4. Demonstrates research and information skills by locating and using sufficient data which are relevant to the aims/objectives of the topic/theme.

5. Produces a high quality written document in report format which includes a logical structure, coherence, clarity, and a high standard of academic which applies the Harvard Referencing System consistently.

APPENDIX TWO

On the module evaluation feedback form students were asked to write comments in relation to the following questions:
1. What two things have had the most positive impact on your learning experience in the module?
2. What two things could be done to improve your learning experience in this module?

Where responses to the first question included comments on the voice file feedback, they have been extracted from the evaluation form and reproduced below. The total number of module evaluation forms received was 50.

“1 Feedback from the voice files was helpful.
2 Voice recorded message was useful for feedback.
3 Voice recordings after assessment hand in was very helpful and will help me when writing academic reports.
4 Very good feedback on assignment. Voice files were clear and concise and helpful to use for future tasks.
5 Voice file really helped me understand where I could improve and where I had succeeded – great idea.
6 The voice feedback was really good as I felt it helped me understand my assignment better. Also I liked that it seemed personal. Overall a really good way of providing feedback as I can access it again any time.
7 The voice file with the feedback from the assignment was extremely useful. I was able to gain a deeper understanding of my report than if it had been written on paper.
8 Voice thingy – very helpful, easier to understand rather than reading comments.
9 Feedback has been given constructively through voice memos which are far more informative than written notes.
10 The feedback received from our assignment (e.g. voice recording) was very helpful and I knew exactly where I had gone wrong. It also commented on the positive things I did as well such as research and this helps as you can recognise your strengths.
11 Assignment feedback was very good with the voice files.
12 I thought the voice feedbacks were good, helpful to have in depth feedback about my assignment.
13 The audio MP3 feedback was very helpful and a good idea.
14 The voice recorded feedback was very helpful and easier to understand than written feedback.
15 The voice feedback was very useful as hearing what my tutor had to say rather than trying to interpret written feedback was much more beneficial.
16 Audio feedback very informative – knew what were strengths and weaknesses – full scope of feedback not simply boxes ticked and one or two lines of...
17 The feedback from the essay via e mail on a voice file.
18 Voice recording feedback was a revelation, brilliant stuff.
19 Voice feedback.
20 Constructive feedback from report (voice files).
21 Voice files very helpful and personal, more comprehensive than written feedback.
22 The voice file feedback for assignment worked very well and would recommend using this in the future.
23 Voice file feedback was new, innovative and extremely helpful.
24 The voice file feedback was clear and easy to understand and explained things better than the written word.
25 Voice file feedback very beneficial.
26 Good feedback particularly audio tapes.
27 Voice recorded feedback.
28 Voice files.
29 Voice files were very useful.
30 The voice files were very useful and I wish all my tutors would provide feedback in this manner.
31 Positive detailed voice file providing constructive feedback/feed forward.
32 The voice feedback files were an excellent way to efficiently receive marks.
33 The voice feedback is helpful and clear. It was a pleasure listening to your voice while I lay in bed.”
ABET: How to get published

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Our Springer book series Advances in Business Education & Training (http://www.springer.com/series/8104) serves as an international forum for scholarly and state-of-the-art research and development into all aspects of business science education and training. In this workshop you will have the opportunity to meet the editors of the series. This provides a unique opportunity to share thoughts about this book series and receive first-hand feedback on your ideas and papers that are possible contributions for the next volume(s) of this book series.

We set two goals for this meeting
1. Give possible contributing authors information on the book series and the demands for publishing in it.

Program of the workshop:

1. The book series

Introduction of the book series by (associate) series editors

2. The procedure Providing insight in the review procedure (and the unwritten rules of writing a great paper).

3. Receive feedback on your paper.

We will organize a short feedback round, reflecting the review round of the book series.

if authors want their papers discussed, they have to bring a few copies.

4. Final discussion
Learning points both for authors, editors and book series are stated.
Keynote: Collaboration and learning cultures

Dr Michelle Selinger, Director of Education Practice, Cisco Systems, mselinge@cisco.com

Elearning, blended learning and lifelong learning are buzz words commonly heard in both academia and in the workplace. What they all point to is the fact that learning is a continuum and it can, and does, take place anywhere and at anytime, with tools like the cloud, smartphones and tablets increasing the mobility of that learning. It is through face-to-face and online contact with others that learning is contextualised and made useful in achieving the task that has to be completed.

What does this look like in practice? How do people learn how to be and how to do their job? What are the emerging technologies that will make those working or studying virtually feel close to and part of a community, and how well, if not better, does this emulate face-to-face experiences?

Research shows that knowledge sharing and collaboration are powerful factors in promoting innovation, creativity and robust learning. It is technology that makes access to a wide diversity of resources and people possible, and in a myriad of ways beyond the classroom or the office. These tools and services connect individuals with others located almost anywhere in the world. Learning can now be “just in time”, “just enough” and “just for me”- meeting immediate needs and being adaptive to learning preferences.

In this talk I will draw on experiences from the workplace and the institution to illustrate and exemplify the possibilities that exist now and reflect on developments for the future.

Bio

Dr Michelle Selinger is the Director of Education Practice for the Global Public Sector practice of the Cisco Internet Business Solutions Group (IBSG). She is based in the UK but has a global remit which included a 3-year placement (2007-10) with Cisco in Sydney, Australia, covering APAC. Michelle’s focus is primarily on education transformation in all areas of formal education. Prior to joining IBSG, Michelle was the education strategist for Cisco’s social investments in education, including the World Economic Forum’s Global Education Initiative. Dr Selinger has extensive experience of working with governments around the world in developing, developed and emerging economies on strategies for education reform through technology.

Dr Selinger has an academic background and was the director of the Centre for New Technologies Research in Education at the University of Warwick, a research and multimedia centre dedicated to research and development in ICT. She has worked in traditional, distance, and online education in all sectors from primary schools to universities, as well as vocational education and training.

She has worked with UNESCO and the European Commission to advise on aspects of e-learning and sits on steering committees for various ICT and education initiatives. She is regularly invited to speak at conferences and meetings internationally, has led evaluation projects on technology-enabled learning, and has published widely on many aspects of ICT in education in academic and professional journals.
Expected market value of the Master’s Degree in International Business Management

Dr. Maria Jakubik, HAAGA-HELIA University of Applied Sciences (UAS), Ratapihantie 13, 00520, Helsinki, Finland, maria.jakubik(at)haaga-helia.fi

Abstract: The system of Master's Degree (MD) programmes of UAS is relatively new in Finland. Previously, research focused on the impact of the MD on graduates' career and employment. In contrast, this research focuses on the expectations of students who start their MD Programme in International Business Management (IBMA). From 2007-2011 data were collected, from 107 IBMA-students from 16 different cultures about expectations regarding their professional development and success; skills and knowledge; and the expected value of the MD for their organization. This was analysed and visualized in a form of ‘word-clouds’, an innovative data presentation technique for exploring emerging themes. The findings indicate that the expected market value of IBMA seen by the new students as understanding international business; writing a work related thesis; learning from others; new ideas, tools and knowledge; research and language skills; MD; and career opportunities. This research has practical implications for curriculum developers, educational practitioners, promoters of MD programmes. Furthermore, it could increase employers’ awareness of the MD market value from IBMA that applies a work-based, practice-oriented learning philosophy.

Introduction

Finnish higher education consists of two complementary sectors, namely, Universities of Sciences and Universities of Applied Sciences (i.e., UAS or polytechnics). The system of polytechnics in Finland is fairly new. The first polytechnics started on a trial basis in 1991–1992, and were made permanent in 1996.

Polytechnics train professionals in response to labor market needs and conduct R&D which supports instruction and promotes regional development. In Finland the total number of young and adult polytechnic students is 130,000 (The Ministry of Education and Culture, Finland).

Finnish UAS MD programmes were put in place during 2005 after a three-year (2002-2005) trial period. There are several reports published about the experiences and results of the trial period from the graduates’, employers’, and from the Finnish higher educational systems’ points of views (e.g., Okkonen, 2003, 2004, and 2005; Ojala & Ahola, 2008). The work-based MD programmes of UAS in Finland have become very popular, the number of applicants was 1,894 in 2005 and 4,290 in 2007. The work-based dimensions (i.e., having a three-year work experience before acceptance; studying while working; conducting a master’s thesis as a work-development task sponsored by the working life) of the studies have been researched (Neuvonen-Rauhala, 2009).

In 2010 a survey conducted by the Union of Professional Graduates in Finland (TRAL) that focused on the career development of graduates with higher degree (Tradenomi 2010, p.13). According to this survey, the average salary of MD graduates from UAS was several hundred euros higher than that of BBA graduates. The TRAL survey shows that 84% of the respondents felt that their position in working life has improved due to completion of their MD. It was felt that the degree has improved their chances to advance in their workplace. Graduates also felt that they received more respect at work and in working life in general. However, the survey showed that the MD of UAS is not well-known by Finnish employers and, therefore, they prefer to employ graduates with MD from Universities of Sciences. This could be due to the novelty of UAS and the lower number of graduates from the MD programmes.

HAAGA-HELIA UAS started a MD Programme in International Business Management (IBMA) during 2007. The yearly intake is around 20 students. This research focuses on this HAAGA-HELIA MD programme. Compared with earlier research, this research is novel in that it aims to assess the expected market value of a MD from the IBMA by exploring the expectations of new students. This research contributes to the work of practitioners and curriculum developers and it provides inputs to MD programme promoters.

Why is it important for education practitioners to understand adult learning processes? Fenwick and Tennant argue that

The understanding of adult learning processes has undergone dramatic changes over the past few decades. New theories informing adult learning continue to appear, existing theories get at tacked or reinvented, while educators must wonder where, amid all the arguments, lies the bes t approach for their practices. The answer of course is that there is no one best way to underst and learning … (Fenwick & Tennant, 2004, p.55).
Furthermore, Fenwick and Tennant offer four perspectives on learning processes to group adult learning theories:

- **learning as acquisition** perspective assumes that knowledge, skills, and competencies can be taught because it views knowledge as a substantive thing;
- **learning as reflection** perspective assumes that knowledge needs to be actively constructed by adult learners and connected with their existing knowledge and their specific contexts;
- **practice-based community** perspective sees that learning happens through active participation in meaningful activities in a specific community; and finally
- **learning as embodied co-emergent process** views learning as an emerging process between people, groups, networks, relationships that happens by sharing, communicating, and working together on a project or assignment in a specific situation (Fenwick & Tennant, 2004, p.56, emphasis original).

The aim of this research is to understand adult learning processes, drives, and expectations from the MD programme. IBMA students’ average age is 34, and work experience is 8 years. Most are employed as middle managers in Finland. It would be naive for educators, practitioner teachers to assume that one best perspective on learning could be followed when teaching in the MD. Thus, teachers need to be creative and apply the right mix of learning approaches for each learning group and each individual. To find the right mix, or to practice a multiple perspective on adult learning, is a complex and difficult task. Therefore, the value and contribution of this research is to support educational practitioners to better understand adult learners by making the findings of this research explicit and available.

The main research question investigated is: **What is the expected market value of the MD in International Business Management?** In order to better understand drives and decisions of students to get a MD, the following three sub-questions were asked of 107 middle managers (five IBMA groups) at the beginning of their studies from 2007:

- **Q1:** How could the IBMA contribute to your professional development and success?
- **Q2:** What skills and knowledge do you expect to obtain from the programme?
- **Q3:** How could the IBMA create value for the organization you work with?

This paper is structured as follows: In the Introduction the need for empirical research is established and the aims of this research are discussed. The importance of a better understanding of adult learners (cf., Fenwick & Tennant, 2004) is emphasized and the questions are presented. In the next section, after briefly presenting the conceptual framework (figure 1), the author attempts to link the research phenomenon to existing theories and concepts of adult educational theories (McIntyre & Grudens-Schuck, 2004), transcendent behavior (Bateman & Porath, 2003), and flow experience (Csikszentmihalyi, 1991). Next, data collection together with data analysis and findings are presented. Finally, the Discussion section reviews the implications of the findings for teachers, curriculum designers, and study programme promoters. Because this research focuses only on one MD programme through 2007-2011 there are opportunities for further research in this field.

**Concepts and relevant theories**

The research focuses on the IBMA programme of HAAGA-HELIA UAS. This aims to develop students’ competencies, skills and knowledge in international business. Competencies are depending on the talents of each student (figure 1). Buckingham and Coffman (2005, p.67) write that great managers define a talent as ‘a recurring pattern of thoughts, feeling, or behavior that can be productively applied’. They (ibid., pp.88-93) argue that competencies, such as skills and knowledge can be taught while others, like talents cannot. This is a paradox because what can be taught is dependent upon characteristics that cannot be taught. Talents are determined by how much one can acquire competencies, skills and knowledge through the formal education process (dotted line in figure 1). Moreover, in order to increase students’ skills, knowledge, and competencies the UAS need to attract more talented candidates with the right attitudes, habits and drives.

This research explores why IBMA-students might want to get their MD in international business. Figure 1 highlights that drive, motivation or passion to gain better skills and new knowledge in international business, are important characteristics of talented candidates. Furthermore, striving, thinking and relating are necessary for talents’ success (Buckingham & Coffman, 2005, p.198).

This research is action research as it aims to contribute to a better understanding of practices of adult educational practitioners (e.g., curriculum design of master’s programmes). McIntyre and Grudens-Schuck (2004), by referring to Carr and Kemmis (1986), note that ‘a critical educational science based on action research that goes beyond both empiricist and interpretive science to achieve, for professionals, a better relationship between their theory and practice’ (McIntyre & Grudens-Schuck, 2004, p.170, emphasis original). They provide (ibid., p.176, table 10.1) several practical guidelines and a list of specific questions regarding the
IBMA aims to educate efficacious and competent international business managers who by applying their new skills and knowledge, gained from the master’s programme, will create value for their organizations. Graduates from IBMA will be able to critically reflect and achieve improvements and changes in their current business realities and practices. Therefore, the concept of ‘transcendent behavior’ presented by Bateman and Porath (2003) is relevant to this study. They consider behaviour to be transcendent when it overrides environmental contingencies or apparent personal limits and creates extraordinary change in the person … or in the environment …” Transcendent behaviour at work is evidenced when people effect extraordinary change by exceeding demands, eliminating or overcoming constraints, and creating or seizing opportunities. (Bateman & Porath, 2003, pp.123 and 125, emphasis original).

Transcendent behavior can be experienced by IBMA-students when they achieve changes in their business environment by solving authentic international business problems in the Master’s thesis. Students attending IBMA will experience change in their skills, knowledge, and competencies (cf., figure 1). This view differs from Lewin’s theory stating that human behavior depends on the person and the environment. The concept of ‘transcendent behavior’ treats behavior as an independent variable that influences the person and her/his environment (Bateman & Porath, 2003).

The flow experience theory of Csikszentmihalyi also provides useful concepts that are relevant to the goal of this research. He argues that the two theoretically most important dimensions of the flow experience are challenges and skills (Csikszentmihalyi, 1991, p.74). He continues that

…flow activities lead to growth and discovery. One cannot enjoy doing the same thing at the same level for long. We grow either bored or frustrated; and then the desire to enjoy ourselves again pushed us to stretch our skills, or to discover new opportunities for using them. … flow activities are freely chosen and more intimately related to the sources of what is ultimately meaningful … (Csikszentmihalyi, 1991, pp.75-77).

Based on flow experience theory middle-managers, after practicing managerial work for several years (i.e., there is a minimum three-year work experience is required in MD programmes of UAS), start their master’s studies and want to increase their skills and knowledge. They either want to satisfy the increased challenges at work or because they are looking for more challenges, new career opportunities. Another driver in a flow experience to start a master’s studies could be expected enhancement of personal skills and professional growth.

This research contributes to practitioners’ understanding of practices in the field of adult education. The research has an exploratory objective of finding out the perceived market value of the MD in International
Business Management. Theories and concepts, presented earlier helped to determine the research questions discussed in the Introduction. The data collection, analysis and the main findings will be presented next.

**Data collection, creative analysis, and findings**

The profiles of five IBMA groups involved in this research are presented in Table 1 below. There were 107 Master’s students involved from 2007-2011. The average age is 34 years and the average work experience is 8 years. Gender distribution shows that there are more women (64%) than men. However, male students’ representation has increased continuously from being 30% in 2007 to 45% in 2011. Students were from 16 different cultures. Nevertheless, in each group Finns were in the majority. Students were in middle-managerial positions within different (e.g., large, small, domestic, international, global, public, private) organizations.

Data were collected systematically in order to better understanding incoming master students’ expectations regarding the market value of the MD in international business. Data analyses occurred in three steps: (1) answers by five student groups were collected and recorded as five text files; (2) a matrix was created according to the key-words found in answers in relation to research questions; and (3) ‘Word cloud’ data analysis technique (Feinberg, 2009) was applied for each question.

The findings related to each research question are presented below in Figures 2, 3, and 4. Finally, through the application of all key-words the expected market value of the MD in international business management was revealed (Figure 5).

This section of the paper presented the profile of five IBMA groups, briefly described the data collection and data analysis process, and finally, showed the findings as ‘word clouds’ (Feinberg, 2009) related to the three research questions. As a synthesis of all key-words, the expected market value of the MD in international business management was visualized in Figure 5. Next, the findings and their implications will be discussed.

**Discussion and Implications**

The findings of this research suggest that a MD from the IBMA programme contributes values to students and their organizations. Next, the findings (cf., Figures 2, 3, 4, and 5) are discussed according to each research question.

**Q1: How could the IBMA contribute to your professional development and success?** The world is experiencing the third knowledge revolution (Nordström & Ridderstråle, 2000, pp.19-23) where knowledge is power. 'Knowledge is the new battlefield for countries, corporations and individuals. We all increasingly face conditions that demand more knowledge for us to function and, in the long run, for us to survive' (Nordström & Ridderstråle, 2000, p.21). IBMA students work as middle-managers (cf., Table 1). The findings reveal (cf., Figure 2) students’ expectations from the master’s programme as follows: MD; networking; new job opportunities; learning from others; new knowledge; personal development; career opportunities; professional-development; theoretical knowledge; updating skills in business; new skills, tools, ideas, viewpoints, perspectives, and new opportunities. MD students started their studies because they felt they needed for new knowledge. Furthermore, students expected to learn more about current topics in IB and acquire new skills during their studies. Students understood that knowledge, skills and competencies in IB (cf., Figure 1) are essential in order to be competitive and successful in their work.

**Q2: What skills and knowledge do you expect to obtain from the programme?** Respondents expect to obtain the following skills and knowledge (cf., Figure 3) from IBMA: understanding international business (IB); research, communication, and language skills; learning from others; new tools; project management and project management skills; management, presentation, analytical, leadership skills. Nordström and Ridderstråle (2000, p.199) argue that changing educational needs will produce changing educational institutions. They refer to Peter Drucker saying that 'Universities won’t survive. The future is outside the traditional campus, outside the traditional classrooms.'

UAS in Finland aim to have a practical, work-based learning approach when practices and theories are linked. Master students have their Personal Study Plans and their master’s thesis is a work-based project supported by theories and sponsored by their employers.

**Q3: How could the IBMA create value for the organization you work with?** IBMA could bring the following value to organizations (cf., Figure 4): a work-related thesis; new ideas; fresh views; applying skills; networks; understanding IB; competent employees; new solutions; know-how; new knowledge; new perspectives. MD students realized that their thesis (800-hours workload) provides a substantial benefit for the organization they work with. Furthermore, IBMA-students see the expected market value of their MD in international business management (cf., Figure 5) as follows: understanding IB; work-related thesis; learning from others; MD; new ideas, tools, and knowledge; research and language skills; communication skills; networking; career opportunities; new job opportunities; personal development; project management. These are important messages for UAS who wish to promote their master’s programmes.
Table 1: Profile of IBMA-students 2007-2011

<table>
<thead>
<tr>
<th>Year</th>
<th>Number of participants</th>
<th>Average Age (year)</th>
<th>Average work experience (years)</th>
<th>Gender Female/Male (in %)</th>
<th>Cultures (countries of birth and/or nationality)</th>
<th>Position (examples)</th>
<th>Companies (examples)</th>
</tr>
</thead>
<tbody>
<tr>
<td>2007</td>
<td>19</td>
<td>35.4</td>
<td>10</td>
<td>70/30</td>
<td>British, Chinese, Finnish (70%), Indian, Russian</td>
<td>Senior Engineer, IT Specialist &amp; Finance Chief Accountant, Executive Assistant, Assistant Product Manager, Project Manager, Business Analyst, Sales Coordinator, Marketing &amp; Sales Assistant, Office Manager, Export Manager, Development Manager, etc.</td>
<td>Bank of Finland, Fair Trade Foundation, Fortum, Hewlett-Packard, Nokia Corporation, Nordisk Film, Papyrus Finland, TietoEnator, etc.</td>
</tr>
<tr>
<td>2008</td>
<td>21</td>
<td>35</td>
<td>9</td>
<td>64/36</td>
<td>American, British, Finnish (59%), Georgian, Nigerian, Russian, Spanish</td>
<td>Area Manager, Consultant, Export Director, Program Manager, Project Manager, Sales &amp; Marketing Director, HR Partner, Marketing Manager, HR and Communication Specialist, etc.</td>
<td>Capgemini Finland Ltd, Logitech Finland, Nokia Corporation, Nokia Siemens Networks, Sodexo Oy, Teknoware Oy, TietoEnator, UPM Raflatac, etc.</td>
</tr>
<tr>
<td>2009</td>
<td>25</td>
<td>33</td>
<td>8</td>
<td>68/32</td>
<td>American, Chinese, Filipino, Finnish (68%), Russian, Swedish</td>
<td>Solution Manager, Risk Analyst, Project Manager, Project Engineer, Sales and Marketing Director, HR Partner, Marketing Manager, Treasury Analyst, etc.</td>
<td>Accenture Oy, Airbus, Headstart Oy, Ministry of Foreing Affairs, Nokia Corporation, Nokia Siemens Networks, Nokia Research Center, Sampo Bank, etc.</td>
</tr>
<tr>
<td>2010</td>
<td>22</td>
<td>34</td>
<td>8</td>
<td>62/38</td>
<td>Afghan, French, Finnish (75%), Indian, Russian</td>
<td>Credit Manager, Finance Manager, Key Account Manager, Project Manager, Manager Sales &amp; Marketing, Treasury Analyst, etc.</td>
<td>Danone Finland, Deloitte&amp;Touch Ltd, IberO Oy, Nokia Corporation, Nokia Siemens Networks, Ovenia Oy, Sampo Bank, etc.</td>
</tr>
<tr>
<td>2011</td>
<td>20</td>
<td>32.4</td>
<td>7</td>
<td>55/45</td>
<td>British, Colombian, Finnish (75%), Iranian, Nigerian, Romanian</td>
<td>Head of Payment &amp; Collection Services, Sales Manager, Business Controller, Training Specialist, President/Sales &amp; Marketing Manager, National Sales Manager, Senior Director Sales &amp; Marketing, Marketing Assistant, Section Manager, HR Business Partner, Retail Trade Coordinator, etc.</td>
<td>Nordea Bank Finland Plc., Sampo Bank Plc, Blue1 Oy, Merck Oy, Sofi Filtration Oy, The Walt Disney Company, GE Healthcare Finland Oy, Hotel Kämp Helsinki, Nokia Oy, Nokia Siemens Networks Oy, Waco Logistics Finland, Symbicon Oy, etc.</td>
</tr>
<tr>
<td>Total</td>
<td>107</td>
<td>34</td>
<td>8</td>
<td>64/36</td>
<td>16 different</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Figure 2: How could the IBMA contribute to your professional development and success? (created with www.wordle.net)

Figure 3: What skills and knowledge do you expect to obtain from the programme? (created with www.wordle.net)

Figure 4: How could the IBMA create value for the organization you work with? (created with www.wordle.net)

Figure 5: Expected market value of the Master’s Degree in International Business Management (created with www.wordle.net)
The findings of the research also offer practical implications for teachers. Foley (2004), concurring with Brookfield (1986, p.150), argues that learning should not be equated with formal education only because it is multifaceted and complex: ‘… most adult learning is not acquired in formal courses but is gained through experience or through participation in an aspect of social life such as work, community action or family activities’ (Foley, 2004, p.5, emphasis added). This research validates this argument because students perceive high value in networking and learning from others (cf., figures 2, 3, and 5). This finding has implications for educational practitioners. Teachers in master’s programme ‘… for too long … have failed to grasp the complex, contextual and often contested nature of adult education and learning’ (Foley, 2004, p.7). This research aims to contribute to a better understanding of this phenomenon.

Understanding the expected market value of the MD in International Business Management also contributes to curriculum development thus increasing the awareness of the students’ expectations (cf., figure 3). Some further practical implications of the findings could help practitioners to realize that besides subject knowledge (i.e., in this specific case IB knowledge) there are other skills (e.g., language, communication, presentation, research, analytical, leadership, project management skills) are expected.

To conclude, this research explored a new field of study in Finland. Finnish UAS started to offer master’s education only a decade ago. The expectations of students and the expected market value of the MD in International Business Management have not been researched before. The research offers a better understanding of student expectations and the value they expect to gain (i.e., IBMA) in HAAGA-HELIA UAS. The novelty of this research lies in applying an innovative data analysis tool for a visual presentation of the findings (i.e., Word clouds of Feinberg, 2009). The author has followed the advice of Peterson and Seligman (2003, p.27, emphasis original) ‘have fun in the process’. The author is convinced that research and data analysis should not be only mechanical and hard work but also fun. Furthermore, the word cloud analysis has proven to act as a more effective means of communicating the perceived value of UAS master’s programme.

References


**Acknowledgments**

The author thanks the R&D department of HAAGA-HELIA UAS, Helsinki, Finland for supporting this research and Dr. Gerard Danford for his valuable comments and advice for presenting the research findings. Thank goes to students of the Degree Programme in International Business Management (IBMA) because without their answers through 2007-2011 this research would not have been possible.

**General Notes**

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Learning through complexity: Strategies for facing wicked problems and unscripted futures

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Abstract: In light of growing complexity and volatility in the world, universities are challenged to tackle interconnected, ill-defined problems in need of innovative solutions. Yet, higher education finds difficulty in organizing initiatives to address such issues and continues to structure solutions in traditional, hierarchical, and restrictive ways. In order to confront these changes and remain a relevant part of society, a mid-sized European university has started to challenge itself, the manner in which it conducts education and the group of people it offers education. To achieve this goal, a bottom-up project structure was adopted, giving lower-level faculty members the autonomy, money and time to experiment and explore unorthodox methods. The research presented in this paper details the perspectives and experiences of this unique project team, and outlines capacities relevant for dealing with wicked problems.

Introduction

We face an unscripted future that is characterized by dynamic and unpredictable changes in the global, economic, and technological context of our lives (DiPadova-Stocks, 2008). Therefore, it is no surprise that 79% of managers worldwide anticipate greater complexity ahead, while over half doubt their ability to manage the increasing complexity (IBM, 2010). Employers today seek professionals who can manage complexity and who can increase dexterity in the way they work (2010). Friedman (2007) identifies fundamental transferable cross-disciplinary skills necessary for work in the increasingly connected ‘flat world’ of our changing global environment. These skills suggest a need for non-linear paths to learning, creativity, passion, and collaboration (Friedman, 2007). However, tertiary and professional education remains static, using antiquated models for learning, development and overall infrastructure, which produce ill-equipped graduates for the volatile and uncertain workplace (Frenk et al, 2010). Universities experience problems creating a curriculum that suits the needs of the labor market and thus develops graduates able to excel in the workplace. The reason for this slow change, is that this problem is ‘wicked’. In contrast to the usual ‘tame problems’, which offer a direct solution or remedy, ‘wicked problems’ are problems that are essentially unique, with no definitive formulation nor conclusive end, with significant consequences for each action, and interrelated to other ill-defined issues (Rittel & Webber, 1973).

Universities face wicked problems on two fronts: They need to prepare graduates for a world with wicked problems, while themselves being confronted with wicked problems. The wicked problem universities face is related to their place in society and finding new ways to function and operate that are more agile and which better accommodate innovation. This paper will focus on the latter problem facing universities and will review a university-wide innovation project, in which a unique project team approach was used to tackle an institution-level wicked problem. Furthermore, the paper will explicate the capacities needed to tackle wicked problems and sets out possibilities, for business and academia alike, to address the massive set of interrelated changes which require us to better prepare for uncertain futures and increasing complexity.

Background of Research

As early as 1990, Peter Senge expanded our understanding about the structure and function of a ‘learning organization’. Through this concept, he encouraged institutions to facilitate learning of their members to continuously transform their organization (Peddler, Burgoyne, & Boydell, 1997; Senge, 1990). However, the groups that did transform into ‘learning organizations’ were often prompted by a need for change (O’Keeffe, 2002; Peddler, Burgoyne, & Boydell, 1997). Such catalysts included the need to remain competitive in the market, the need to innovate, or the need to become more responsive to their clientele (Hipsher, Lindstrom, & Parks, 1997; O’Keeffe, 2002). Many of the same challenges and triggers exist for
higher education today. Universities face the challenge of a diverse learning population whose demands on instructional formats are constantly evolving (Allen & Seaman, 2010; Oblinger & Oblinger, 2005). These changes result in a shift of university responsibility for society from conserving and transmitting knowledge to creating knowledge. This problem is alleviated by the increased volatility of knowledge (Smith, Ford, & Kozlowski, 1996) with multiple outlets to transmit knowledge and with various modes to create knowledge.

Yet as a result, traditional universities need to compete against other forms of “learning institutes” such as corporate universities, online universities, research institutes and workplace learning. While some of those institutes adopt the static “knowledge transmission” model (Wink, 2000) employed by universities, others offer a far more dynamic approach to learning and knowledge creation, and thus can better serve the needs of society. Steps in trying to implement a solution which suits the learner has consequences on stakeholders within the university, and can be characterized as a wicked problem. The solution to the problem needs to continuously evolve as the environment, in which the learner and the university is embedded, changes.

While many organizations in the corporate world continue to innovate their working structures to remain relevant and pertinent in today’s complex world, higher education remains fairly static, particularly in their structures and functions. Consequently, the more rigid hierarchical model of higher education (organized by rank and discipline) make it challenging to adopt a forward-thinking mindset or to implement innovative initiatives (Gappa, Austin, & Trice, 2007). Furthermore, as faculty rewards are directed to tangible research, service, and teaching, faculty are offered no incentive to heavily invest their time and effort toward innovation (Williams & Peters, 2004). Higher education has traditionally rewarded the single-authored monograph and created a system of content ownership and intellectual property; both which discourage collaborative or cross-disciplinary exchange. Yet today’s world demands the competencies for collaborative knowledge building and knowledge sharing (Friedman, 2007; DiPadova-Stocks, 2008; Edmondson, 2009). We find a lag and stagnation in higher education that fails to support a structure for innovation and adaptation, particularly when facing wicked problems.

Our increasingly networked world is more connected and collaborative, largely due to recent technological advances that allow for agile ways to communicate. And as wicked problems continue to emerge, “highly specialized professionals find themselves needing to collaborate to carry out integrative development projects” (Edmondson & Nembhard, 2009, p.123). The traditional silo approach, confining people to their own specialty, has evolved to support cross-functional, interdisciplinary project work. In the corporate sector, new product development teams exemplify a team structure comprised of professionals from different functions, working collaboratively to create a sound product in a short time (Edmondson & Nembhard, 2009). These teams encounter various challenges, challenges which overlap those of tackling wicked problems. These challenges include: project complexity, cross-functionality, temporary membership, fluid team boundaries, and embeddedness in organizational structures (2009). Yet such challenges are also shown to build new capabilities and team member resilience (2009), which are central to address wicked problems. If universities are seeking strategies to tackle wicked problems, modeling the new product development team approach could be helpful.

Academia must also reconsider how it views project management. While traditional project management strategies are efficient, they rely heavily on a hierarchical chain of command for the division of work and decision-making (Davis, MacDonald, & White, 2010). Typically, each person has a clearly defined role with specific task(s), requiring little need to learn new skillsets or exchange ideas with others. Project management also implies more oversight and direction to manage details of the project and to manage the people completing the tasks. While these methods may work for ‘tame problems’ with direct solutions and easily identifiable action steps, other models should be explored to tackle wicked problems. Collaborative models that promote freedom to experiment are needed.

To affront these changes and remain a relevant part of society, a mid-sized European university has started to challenge itself, the manner in which it conducts education and the group of people it offers education. To achieve this goal, a bottom-up project structure was adopted, giving lower-level faculty members the autonomy, money and time to experiment and explore unorthodox methods. The research presented in this paper details the challenges, successes, and processes relevant for dealing with wicked problems experienced by the team members, using a bottom-up structure. Our research question, “What elements are needed to promote innovation toward solving wicked problems” led to recommendations for a number of characteristics and capacities which serve to optimally navigate these complexities.
Methodology
In 2009, the University set off for new horizons with a unique structure for a university-wide project over a three-year period. The primary goal of this project was to explore and innovate online and hybrid learning strategies to support problem-based learning (PBL), and to develop new educational formats and modes of delivery to engage learners; all while suiting the university’s overarching teaching philosophy of problem-based learning. The project focused on attracting part-time learners, such as working professionals, PhD candidates and undergraduates studying abroad. During the 3-year project (including approximately 13 pilots, 25 courses, and 391 learners) across all disciplines of the university, a new approach for addressing wicked problems emerged. We will share the rich qualitative data from perspectives and experiences of the project team members to make recommendations for the capacities needed to tackle wicked problems.

Fifteen individuals, holding key roles in the project and representing various disciplines, functions, and domains, were interviewed individually. Interviewees had at least one of the following roles: project leader, pilot leader, researcher or support. The interviews were semi-structured and lasted 20 to 45 minutes. Questions focused on three levels: The project (macro), the pilots each project member was involved (micro), and what knowledge was created for the university through this project (meta). On the macro level interviewees were questioned about their perspective of the goal, the team’s process, team members’ and leader’s characteristics. The second level looked into the goal of their pilots and the process of implementing the pilot. The third level asked for success factors and lessons learned from the project. The results presented here will focus on the 1st and 3rd level as they provide insights on how wicked problems can be addressed from an university perspective instead of a small and local faculty basis. The interviews were transcribed and coded using Atlast T.I. analysis software. Based on the data collected, we will offer recommendations and considerations for implementing an innovative project across various disciplines while tackling a wicked problem.

Results
The interviews unearthed 25 categories and identified four overarching themes: 1) Horizontal management, 2) Cross pollination, 3) Fluid Processes and 4) Entrepreneurial spirit. Each theme provides insight into the competencies and elements needed to address wicked problems and shares considerations for the individuals involved, team, and institutional perspective. Therefore, the ideas are presented based on what needs to be done at an organizational level, characteristics needed at an individual level for those involved in such projects, and also the environment needed for a dynamic team process. The following model, descriptions, and affiliated participant quotes are intended to provide recommendations and considerations when addressing wicked problems.

Figure 1: Capacities Needed for Tackling Wicked Problems

Horizontal Management
To address wicked problems, creativity and adaptation are essential, and this type of working environment calls for a unique approach to project work that is more horizontal and collaborative in nature, rather than
vertical or hierarchical. Using horizontal management can be very effective for innovation-based project work, yet it relies heavily on personal relationships between the project team members and may take more time to establish initially. The horizontal management approach promotes faculty involvement through a decentralized decision-making process, which elevates the level of responsibility of baseline employees/faculty and eliminates layers of middle management or upper level administration. Using a horizontal management model, the people who make the decisions related to funding, implementation, and outcomes, are the same individuals at the ‘ground level’ implementing the project. In other words, those most impacted by the decisions are the ones making the decisions. As a result, the communication and feedback reach all people involved in decisions more quickly and incites more frequent interactions between these people. As one interviewee stated,

If you want to innovate, it’s difficult to do that top down because the board doesn’t necessarily know where to go. You need the people at the workplace who see possibilities to innovate and that fit into the curriculum in that faculty and with the colleagues in that faculty. So you look for opportunities that are really there instead of forcing people to do new things. It requires effort and you need people who are motivated to do that.

In this project, one overarching goal was identified and bottom-line faculty were invited to submit proposals for their participation. This strategy attracted individuals across all disciplines who were interested in the same overarching goal of the project. The initial budgetary resources were appropriated for each pilot during the 3-year period. Hence, each pilot/pilot leader in the project team were given a fixed amount of money and were responsible for maintaining how their funding would be used. A system of checks and balances existed within the project team in the form of monthly timesheets (to record hours worked on the project) and regular reporting by financial controllers to share the percentage of existing funds/funds spent for each pilot. To inform institutional stakeholders of progress, bi-annual reports were also shared with the university board that funded the project.

The only predefined components for the project team included the overarching project goal, the assigned team leader, and the amount of money each pilot had to spend. However, once selected, the project team was responsible for defining the path to achieve the goal, independently identifying how each pilot would work, how the money would be allocated, where resources could be shared, and what the anticipated results would be. Moreover, each of these areas continued to change, and were modified and adjusted throughout the process. Therefore, a significant amount of autonomy and freedom were given to the project team. At the *individual* level, with freedom and autonomy comes significant responsibility. Each pilot leader had the opportunity (and burden) of managing his/her own pilot goals, outcomes, and research, in addition to connecting to the overarching project goal. They had freedom to select their electronic platform and tools, (re)design courses in the pilot, and manage the enrollment and payment of new student groups. The team members invested above and beyond their allotted time for the project, yet their passion for this work, and the autonomy and trust given to them, infused a higher level of commitment. Throughout the interviews, participants reiterated the importance of having the freedom to experiment. They expressed a need for the project leader to encourage this autonomy and to navigate bureaucratic bodies to support the team.

A good leader (for this project) is somebody who gives the collaborators enough freedom to go ahead with their own task and does not interfere too much. Who trusts the ones who are involved, who are part of the team, who trusts all team members that they do their job well. And a good leader is somebody who’s able to tackle problems that cannot be solved by individual team members and can bring them under attention on a higher level.

From the high level, *institutional* perspective, the management of such a project necessitated not only the entrepreneurial spirit to pursue (and financially invest in) innovation, but also the ability to patiently support and demonstrate trust in the project team. The role of the team leader and administration, therefore, was to focus on supporting and advocating for the project team and their needs; to focus on encouraging the people in the project rather than merely managing the details of the process. It was important for the institutional leaders to create opportunities for the project team to share recommendations and solutions and to respond in a timely manner. During the project, challenges were encountered that were ultimately issues controlled at an organizational
and infrastructural level. For example, the university-wide contract with a technology vendor expired, while many of the pilots were using the technology. This obviously created significant problems for the pilots and the project team had to quickly create a plan to fund the vendor contract using project funds. On a larger scale, issues with enrollment, payment, and registration of a new learner population also required a centralized solution. The project team recognized the importance and value of having institutional support. As one interviewee states,

> It is a bottom up project...those projects are possible, that every faculty has a few key people who are willing and able to work in such projects. But without commitment and support from the centre, the chances that it fails are big. And after a period of experimentation the central level needs to come in, step in and solve all the bottlenecks which the different faculties encounter. Because those bottlenecks are all at a central level. So you can’t leave it up to every faculty to find their own solution. It needs to start bottom up, maybe it can continue to be bottom up, but at the centre there needs...the centre needs to start moving.

Therefore, scaling up the success of innovation projects and finding solutions to the institutional bottlenecks was needed at the organizational level. Based on the financial investment made in the project, the institution had a responsibility to create the conditions needed for scaling up the many project successes in order to fully benefit from their investment.

**Cross Pollination**

Cross pollination suggests a melding of many areas to create something new or special. Such cross pollination occurred in this project team on two levels through: 1) composition of the project team members, 2) exchange of knowledge. The project team in this study was unique in the way it integrated team members from across various sectors of the university. The project team involved all stakeholder groups with varying expertise and working within different domains. Pilot leaders from each Faculty (discipline) were represented in the team, in addition to experts in educational research, ICT, web design, and eLearning. The cross-functional, cross-disciplinary team adopted a structure similar to new product development teams (Edmondson & Nembhard, 2009), in which fluid boundaries allowed members to float in and out of the team as their expertise was needed. One individual expressed the importance of involvement from various stakeholder groups and team members:

> People who want to take risks, who are creative, innovative and dedicated, who are willing to spend more time than is actually required on paper. And of course they have to come from several groups. Not only teaching staff but also support staff and students. From every, lets say, blood group with in the university we should have such people who contribute.

However, the most significant evidence of cross-pollination occurred in the sharing of ideas, strategies, and development of their competencies related to eLearning tools used in the pilots. They coached and mentored each other individually.

> ...A fellow project member well, showed me the how to do this...how to work with the equipment and of course he shared his experiences with me on how to get the best results. So in that way doing this, well he was really of great importance to me.

The project team self-organized to offer training sessions for one another and dedicated time to ensure that all members of the core team shared their knowledge and expertise. For example, one team member became proficient in using videoconferencing software, and hosted a workshop for all project members, tutors and students to educate them on this tool and its potential application to their pilots. Another faculty member became an expert in web design, created a project team website, and taught the project team members how to maintain and update the project website together. They also fueled the spark for new ideas and innovations through conversations and idea exploration together. As an interview explains,
I was impressed by a fellow project member’s idea of working with the mobile devices and having doctors at the end of the day exchanging experiences. Well I thought immediately: ‘How can we use these kinds of ideas within our pilot?’

Hence, it is not only a cross pollination of team members from various functions and domains, but also an environment that supports a cross pollination of ideas to be explored and shared as a collective group, to improve all pilots. As simply stated,

You need others, colleagues who are motivated too and want to collaborate with you. It requests a lot of effort to initiate innovations. And you cannot do it alone.

**Fluid Processes**

Typically, project-related grants or significant financial allocations are accompanied by clearly defined outcomes and stringent deadlines, which, consequently, offer little room for deviation or creativity. As indicated earlier, wicked problems are unique, challenging, offer no definitive end, and are typically linked to other ill-defined, challenging problems. Therefore, it is imperative that the project team, leaders, and institution maintain a capacity to evolve, and the stamina and perservance for adapting to (and with) those changes. Engaging in such a fluid process requires the capacity to support evolving circumstances.

Accommodating such fluid processes also means embracing failures as part of a learning experience, which will help to improve all future processes. For example, one pilot went through three different pilot leaders, attempting several pilots which did not work due to their target population. However, the funding was not cut, nor penalties made, but simply new team members and ideas were introduced, to continue with new innovations and tactics. Therefore, individuals involved in the project need a capacity for managing change, and the ability to see problems as part of an educational journey. They also need to develop a capacity to continually encounter and accommodate roadbloacks. As two participants shared,

I think some of the things that we have learned most significantly from were the obstacles and speed bumps we encountered and how we can make recommendations university wide to improve those.

I think you need friction. Look for things that don’t fit. That enables, it enables you to learn…to look for the roads less travelled. And then you probably run into obstacles and these obstacles are probably interesting.

The project produced many successful pilots, recommendations, and practices which will benefit the university for years to come, yet it also faced significant volitility and times of transition. Transitions included: new upper level administrators, new project leaders, entering and exiting team members, technological challenges, issues with contract renewals, and project resistance within the faculties. Yet despite such transitions, the project team demonstrated significant resilience,

If something is created at a certain place then you have to meet resistence before it is seriously considered. And of course there are differences between faculties and there are things like signature pedagogies…but that shouldn’t keep people at the work floor from interacting and trying to do things together.

In addition to volitility within the project, personal situations (such as materinty leave, illness, and member relocations) also impacted the momentum of the team. For example, one instrumental pilot leader on the team suffered a serious health condition and had to take a leave of absence from work. Yet, other team members helped continue this pilot leaders’ efforts until able to return, and those pilots continued in the person’s absence. This type of response by the project team demonstrated their adaptive, supportive, and collaborative nature and how their processes were impacted positively as a result. The fluid nature of the team and their adaptive processes allowed the project to maintain momentum and optimism through collegial support. In addition to supporting one another, the team also indicated the importance of having an organic, and naturally flowing process that focused on forward movement and new learning.
What we tried to do is have regular meetings at the beginning between people teaching and the pilot leader to discuss: what is the aim of the project? What do we want to achieve? How do we try to achieve this?...and then in the meantime always have regular meetings with them to see whether there is something that is going wrong or something that is going very well.

In the beginning we were all searching for how to formulate pilots, to implement pilots. In the beginning I think everyone was more busy with his own project and there was not as much exchange....We are moving away from the specific pilots to more organizational broad problems and also organizational broad opportunities for innovation. So I think from everyone (working on their own) we are growing to be a real team with a shared vision, sharing results, sharing wishes for the future.

Entrepreneurial Spirit

Entrepreneurial spirit implies a state of energy and enthusiasm about the project work, in addition to an aptitude for innovation, and presented itself as a capacity needed at the individual, team, and institutional levels. At the individual level, there was a strong need to possess collaborative skills, the ability to innovate and stimulate ideas, to maintain an openness to feedback and paradigm shifting, and to demonstrate enthusiasm and perseverance for the project (particularly when facing obstacles and challenges within their pilots). Below, two interviewees highlight the importance of motivation, critical thinking and problem-solving skills toward an entrepreneurial spirit:

You need people who are really motivated to invest and don’t give up if it’s going a bit difficult and encounters problems. People who are able to collaborate; social skills to contact people, to try to convince people. You cannot work with people who want to sit in their office.

I would say people working on this project would need an aptitude for innovation and creative thinking and problem-solving as well. Many of the pilot leaders, despite facing several obstacles (even just technology wise), were always able to find solutions and work-arounds. So being able to think critically, to problem solve, but also to do it in a very creative and innovative way is something that I feel is really critical for this type of project.

At the team level, the interviews unearthed the need for collaborative knowledge sharing and knowledge building. Members of the project team needed to be very open and collaborative to experiment on their own, but also to share their expertise, to exchange their positive and negative experiences, and to do so in a non-threatening environment. Since part of the entrepreneurial spirit involved creating innovation and learning from one’s failures, the data highlighted the importance of creating a psychologically safe communication climate (Edmondson, 1999) built on trust, mutual respect, and open communication. Members of the team had to focus not only on their own innovation, but also in collaboratively working with others across different disciplines and functions to create resources and recommendations collectively. They needed to be able to make connections between the successes and failures occurring in all parts of the project, and to draw conclusions and recommendations based on those connections. Furthermore, the interviews addressed the need to promote and market their work (successes and failures) to others outside the project team. As one participant shared,

I think it’s important to look beyond one’s disciplinary boundaries and the people in this project team were able to do that. They were able to collaborate and share knowledge and build knowledge together. In a way that is not typically done in academia....for that to happen you have to have people who are willing to be open (to be able) to learn from failures as well as from successes and to be able to share that.

Not only do the pilot leaders have their own individual expertise on research ideas and experiences, they also bring those back to the group so we can all learn from one another and build that knowledge collectively and share it with others.
From an institutional perspective, an entrepreneurial spirit was needed to invest the time, money, and resources into a project team focused on unorthodox and innovative strategies. The university had to support a significant investment and level of trust and autonomy to allow the team to function for 3 years, with little direction or pressure from upper level administration. Two participants expressed their sentiments about the importance of garnishing support from above:

There needs to be clear support from the top that people are allowed to experiment even if there is not immediate return visible. And it should be with people who like to experiment and who like to engage in new things.

That required quite a bit of commitment from the organization because you have to be willing for instance to do a ‘needs analysis’ and to focus on the environment and see where opportunities lie and what kind of programs are feasible or viable. And that requires this entrepreneurial attitude.

As with every project, challenges were faced and provide an excellent source for future learning. During this 3-year project, the most common challenges occurred as the result of two areas: 1) Dissemination toward scaling up success and 2) institutional adoption of innovations (including infrastructure and policies needed). Furthermore, given the dedicated and enthusiastic group of project team members, it was always a challenge to remember that lasting change takes time and to allow the process to develop organically from the bottom-up.

In the future, it will be increasingly important to create opportunities for cross-disciplinary collaborative knowledge building, while learning to embrace ambiguity and uncertainty through adaptive expertise development. To deal with complex issues and wicked problems, we need to explore new models for teaching, learning, and organizational infrastructure (particularly for innovation projects) that extend beyond traditional boundaries and which promote networked knowledge creation. Furthermore, organizational administration will need to consider ways to create an environment that promotes and rewards these types of creative and laborious efforts and promote the scaling up of successful results.

References


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Enabling Active Learning using Prediction Markets

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Prediction markets have been positioned in the literature as a useful pedagogical tool in encouraging active learning. Their scalability offers exciting potential for solving some contemporary problems in higher level education. Prior literature has identified that prediction market participation benefits both the cognitive and affective domains of learning. However, while some empirical work validating the potential of prediction markets exists, evidence supporting these theoretical conjectures remains limited until now. Using both quantitative and qualitative data, this paper investigates the impact of prediction market participation on engagement in information search, cognitive disciplinary knowledge, affect towards the module in question and affect towards information literacy behavior.

Introduction

The constructivist learning paradigm positions active learning as the central element of the educational process. Constructivism posits that individuals learn through modifying their internal representations of reality through repeated interactions with the environment (Jonassen, 1994). The creation of pedagogical environments that facilitate the development and modification of internal knowledge representations is, therefore, a perennial concern of educators (Bostock, 1998). This challenge is amplified by current educational trends, such as the massification of higher education (Cornuel, 2007), increasing student/staff ratios (McAvinia & Oliver, 2002) and increasingly diverse student bodies (Gibbs, 1992). These trends make it difficult for academic staff to implement active learning strategies in the context of the administrative overheads involved. Information Technology (IT) is frequently heralded as the ideal enabler when it comes to active learning (Rouet & Puustinen, 2009; Tsai, 2008). The use of IT allied with appropriate pedagogical design is particularly suitable when addressing the challenges of large group teaching (Wang, 2009). However, IT is not a universal panacea. While some activities, such as delivering multiple choice tests, can leverage IT to scale efficiently, other approaches only scale linearly (Lemak, Reed, Montgomery, & Shin, 2005). A key challenge in integrating IT into the educational experience, particularly in large group teaching environments, is ensuring that the strengths of IT are leveraged to make efficiency gains.

Prediction markets, a relatively novel form of group decision making, can be used to enable active learning in large group teaching environments by leveraging IT appropriately. The pedagogical utility of prediction markets has been explored in the literature recently, albeit only from a theoretical perspective (Buckley, Garvey, & McGrath, 2011). Of particular note is the scalability of prediction markets. When deployed across the Internet using web technologies, they can scale efficiently to classes involving hundreds of students.

This paper builds on the emergent literature on the use of prediction markets in an educational context, making a number of important contributions. It presents empirical work which examines some hitherto unexplored questions regarding the pedagogical utility of prediction markets. In particular, the effects of prediction market participation on the cognitive and affective domains of learning are investigated. A mixture of both quantitative and qualitative data is gathered, facilitating a holistic exploration of the pertinent issues.

Prediction Markets

Prediction markets are “designed and run for the primary purpose of mining and aggregating information scattered among traders and subsequently using this information in the form of market values in order to make predictions about specific future events” (Tziralis & Tatsiopoulos, 2007, p. 75). Their theoretical roots can be found in Hayek’s conceptualization of markets as near perfect transmitters of information (Hayek, 1945). This perspective on market operation led to the formulation of the efficient market hypothesis, which operates on the premise that “stock prices at any time 'fully reflect' all available information” (Fama, 1970, p. 383). In the simplest form of a prediction market, a contract is created whose value is dependent on a future uncertain event. For example, a manager wishes to evaluate whether a project will be completed within the relevant timescale. In order to use a prediction market to assess this
question, a contract is created. This contract returns €100 in virtual currency if the project is completed on time and €0 if the project is not completed on time. The contract is then offered for sale on a market, typically an electronic market, delivered via a website. Market participants can buy and/or sell the contract. If a participant believes the project is likely to be completed on time, they will buy the contract, causing its price to rise. If they believe the contrary, they will sell the contract, driving the price down. The price of the contract can therefore be used as an estimate of the group’s collective estimation as to the probability of the project being completed on schedule.

**Prediction Markets as Pedagogical Tools**

One of the recent applications of prediction markets is as a pedagogical tool (Buckley et al., 2011; Garvey & Buckley, 2010; Raban & Geifman, 2010). Theoretically, they have been positioned as suitable for creating a Rich Environment for Active Learning (REAL), as described by various authors (Bostock, 1998; Dunlap & Grabinger, 1996). REALs are designed to embody constructivist learning attributes. These include authentic learning contexts, promoting learner responsibility and initiative, authentic assessment strategies, generative learning activities and collaborative learning (Grabinger & Dunlap, 1995; Lebow, 1993; Simons, 1993).

Furthermore, prediction markets have other characteristics particularly useful in educational environments. First, they are scalable. Once designed and deployed, prediction markets can leverage IT to efficiently handle hundreds, even thousands, of participants. In a ‘massification’ era, where increasing class sizes without commensurate increases in resources leads to increasing student staff ratios, this attribute is particularly noteworthy (Cornuel, 2007). In a pedagogical environment, prediction markets can be used to create decision scenarios that facilitate learners in applying the knowledge delivered in lectures to real-world problems. This familiarizes students with real-time, real-life problems, which academics and teaching staff can use to contextualize lecture material. In contrast to surveys and other polling mechanisms, prediction markets operate continuously over a period of time. This allows lecturers to use them as real-time feedback mechanisms. If information revealed in a lecture should affect learners’ decisions, the prediction market can be monitored to detect whether learners assimilated the revealed information in the correct manner.

Prediction markets are posited as encompassing a number of benefits for students in the cognitive learning domain. First, decision making skill in particular contexts will improve by interacting with the decision scenarios delivered by the markets. Although limited, the available empirical evidence supports this contention (Buckley et al., 2011). By prompting students to make forecasts and engage with decision scenarios, the market encourages them to search for, analyze and interpret information pertinent to the decision scenario presented. This should have two effects. First, students’ overall comprehension of the domain in question will improve. Second, students’ information literacy skills will improve. This is the set of skills prompting individuals to recognize when information is needed and enabling them to locate, evaluate and use information effectively (Hoffman & Blake, 2003). Most employers now regard information literacy as a vital skill, particularly in any form of white collar work (Ezziane, 2007).

Researchers have also identified a complementary set of benefits in the affective learning domain prompted by prediction market participation. The realistic nature of the problems presented by the prediction market should ground academic theory for students. The decision presented by the market can be designed to be similar to the decisions students will face in their professional careers. Participation allows learners to take academic theory ‘out of the classroom’ and use it to solve real problems. This will facilitate an appreciation of how theory informs practice in the real-world, thus increasing engagement in the educational process (Burke & Moore, 2003). Other research shows that actively engaging in decision making in a problem domain improves student’s self-efficacy (Tompson & Dass, 2000). Prediction markets activate a competitive spirit in the student body. Learners making accurate predictions end up with more virtual cash than those who forecast poorly. While this competitive element must be controlled and carefully monitored, when appropriately harnessed the competitive element of prediction markets is a powerful motivating tool.

**Research Questions**

Previous empirical work has investigated the impact of prediction markets on the decision making skills of participants. However, substantial gaps in our understanding remain (Buckley et al., 2011; Raban & Geifman, 2010).
The prediction market literature suggests that the individualized nature of rewards provided by prediction markets encourages individuals to search out, evaluate and integrate new information into their decision making process (Christiansen 2007; Hanson 1990; Wolfers & Zitzewitz 2004). However, no studies investigating whether or not these hypothesized effects occur in an educational context have been conducted until now. The first research question investigated in this study is, therefore, whether prediction market participation prompts students to engage in information search.

Searching for, analyzing and interpreting new information will improve students’ general knowledge of a specific domain. This study aims to empirically investigate the impact of prediction market participation on general knowledge in the tax domain. To this end the second question investigated in this study is whether prediction market participation will result in a better general knowledge of tax.

As discussed, the literature suggests that a number of operant mechanisms will improve students’ affect towards courses which include prediction markets as an assessment tool (Buckley et al., 2011). Our third research question investigates whether prediction market participation improves students affect towards the module in question.

Our first question examines the impact of prediction market participation on information literacy skills. However, we wish to delve deeper in this regard and investigate whether behaviors around information literacy are only prompted in the context of prediction market participation or whether these behaviors are likely to become part of an individual’s long term behavior patterns. The fourth research question explores this by examining whether prediction market participation improves students affect towards the information literacy behaviors encouraged by the course/module.

Research Methods
In order to investigate the research questions outlined above, a prediction market was designed and deployed as part of an undergraduate module in Taxation. The National Budget Forecasting Project (NBFP) used a prediction market interface to require students to forecast what measures would be introduced in Budget 2012. Put simply, students were asked to forecast the outcome of 12 tax policy questions. Students were also asked to provide a narrative justification as to why they made the particular trade.

In order to investigate the research questions outlined both quantitative and qualitative data were collected. The quantitative data consisted of a pre- and post-NBFP survey distributed to and completed by students in class. The pre-NBFP survey consisted of two sections. The first included a series of general tax knowledge questions specifically drafted so that the answers were not addressed during module lectures. The second section of the survey measured the affective domain of learning using the Affective Learning Scale (ALS). Further information and scoring instructions for this instrument can be found online (McCroskey, 2012).

In addition to the two quantitative sections of the survey described above, the post-NBFP survey also included a free-form text box, where respondents were invited to provide any comments they wished to share about the project. Responses to this open ended question were used to qualitatively investigate the research questions raised above. In order to supplement this qualitative data and to contextualize the quantitative data, a focus group was also conducted with students.

A total of 57 third year undergraduate students taking a module in taxation participated in the NBFP. Both the pre- and post-NBFP surveys were distributed and completed by students in class. 32 responses to the pre-NBFP survey were collected, while 33 responses were received to the post-NBFP survey, representing a response rate of 56 percent and 57 percent respectively.

The NBFP surveys produced three dependent variables. Question_Score measured respondents’ general tax knowledge and was calculated by summing the total number of correct answers to the general knowledge questions included in the surveys. The impact of prediction market participation on the affective learning domain was measured in accordance with ALS scoring instructions. Affective_Learning measured students’ overall affect toward the course and class while Affective_Behaviour measured students’ overall affect toward the behaviors encouraged by the project.

In order to address the first research question (the impact of prediction market participation on engagement in information search), the reasons advanced by students to justify their trading patterns were analyzed. In order to address the remaining research questions a hypothesis was developed for each so that it could be tested quantitatively using the data gathered from the NBFP surveys. The hypotheses developed from the research questions discussed above where:

Hypothesis A: Students’ general knowledge of tax practice and policy will be higher following their participation in the National Budget Forecasting Project
Hypothesis B: Students’ affect towards the module will be higher following their participation in the National Budget Forecasting Project

Hypothesis C: Students’ affect towards the behaviors encouraged by the NBFP will be higher following their participation in the National Budget Forecasting Project

In order to contextualize the quantitative findings from the NBFP surveys, the qualitative comments contributed by students completing the post-NBFP survey and the focus group findings were also analyzed.

**Analysis & Results**

In order to investigate the first research question which concerned whether prediction market participation prompted students to engage in information search, the market itself was the primary data source. Over the course of the project, 3,474 trades were executed while 1,397 valid rationales were contributed.

The reasons advanced by students to justify their trading positions were divided into three categories for the purpose of our analysis. The first category is titled ‘Specific Source’, and includes comments where participants attributed their trading positions to specific sources of information. The second category is titled ‘Non-specific source’, and includes comments made by participants which did not identify a specific information source. Also included in this category were logical inferences which were not directly sourced. The final category, titled ‘Value Opinions’, consists of rationalisations informed by the participant’s own preferences, values and opinions as to the correct course of action.

505 contributions made by participants were Specific-Source comments, 799 were Non-specific Source, while 93 comments were Value Opinions. Based on this analysis, 14.54% of all the prediction market trades can be directly attributed to specific information sources, 23% to non-specified sources and 2.67% to participant’s values and opinions. This is a clear indication that participant’s decision making was informed by information search and analysis of external sources. Furthermore, while participants didn’t give reasons for every trade, it is realistic to suggest that a substantial proportion of the unrationaled trades were also informed by information sources.

The quantitative data collected by the market therefore supports the position that students actively engaged in information search to support their forecasting. This is also corroborated by the qualitative data collected. For example, one student reported in the post-NBFP survey that ‘It made you read the newspapers and watch the news on a daily basis’. The focus group findings also confirm that participants used newspapers, Google and reports from organizations to information their decision making. Focus group participants admitted that the project had a positive effect in this regard, with one participant reporting that he/she ‘definitely learned a lot from it, I wouldn’t have a clue about these things before hand’.

As mentioned above, the NBFP surveys completed by participants produced three dependent variables - Question_Score, Affective_Learning and Affective_Behaviour. In order to investigate differences between the pre- and post-NBFP results and test the hypotheses outlined above, a multivariate analysis of variance (MANOVA) was conducted. The independent variable was categorical with two levels, Pre and Post, used to distinguish between the Pre- and Post-NBFP results. The MANOVA output and estimated marginal means are set out in the tables below.

As can be seen from Table 1, there was a statistically significant difference between the pre- and post-NBFP results on the combined dependent variables, $F(3, 61) = 14.03, p = 0.00$; Wilks’ Lambda = 0.59. When the results for the dependent variables were considered separately (see Table 2), however, the only differences to reach statistical significance using a Bonferroni adjusted alpha level of 0.17 was Question_Score, $F(1, 63) = 32.28, p= 0.00$, partial eta squared = 0.34.

The second research question addressed in this study is whether prediction market participation results in an improved general knowledge of the discipline under consideration (Hypothesis A). The MANOVA analysis (set out in Table 2) shows a statistically significant difference between the pre and post Question_Score variable $F(1, 63) = 32.28, p= 0.00$. The Post-NBFP score (M = 4.21, SD = 1.45) is higher than the Pre-NBFP score (M=2.37, SD = 1.12) – see Table 3. Hypothesis A is therefore supported.

This finding is buoyed up by the qualitative data gathered. Relevant qualitative comments from the post-NBFP survey were largely positive. One participant reported that the project encouraged him to ‘keep up to date on current affairs’. In a similar vein, another commented ‘I have learned a lot from it’, while a third contributed ‘the project was a good way of keeping up to date with news on the forthcoming budget’. The focus group also supported this perception, agreeing that a great deal had been learned from engagement with the project. One member of the focus group specifically commented that what attracted her to the project was ‘you do the research and you answer the questions’.
### Table 1: Results of MANOVA Multivariate Tests

<table>
<thead>
<tr>
<th>Effect</th>
<th>Hypothesis</th>
<th>Partial Eta Squared</th>
</tr>
</thead>
<tbody>
<tr>
<td>Intercept</td>
<td>Pillai's Trace</td>
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<td></td>
<td>Wilks' Lambda</td>
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<tr>
<td></td>
<td>Hotelling's Trace</td>
<td>809.995(^a)</td>
</tr>
<tr>
<td></td>
<td>Roy's Largest Root</td>
<td>809.995(^a)</td>
</tr>
<tr>
<td>PrePost</td>
<td>Pillai's Trace</td>
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</tr>
<tr>
<td></td>
<td>Wilks' Lambda</td>
<td>.592</td>
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<tr>
<td></td>
<td>Hotelling's Trace</td>
<td>14.031(^a)</td>
</tr>
<tr>
<td></td>
<td>Roy's Largest Root</td>
<td>14.031(^a)</td>
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</tbody>
</table>

\(^a\) Exact statistic

### Table 2: Results of MANOVA Tests of Between-Subjects Effects

<table>
<thead>
<tr>
<th>Source</th>
<th>Dependent Variable</th>
<th>Type III Sum of Squares</th>
<th>df</th>
<th>Mean Square</th>
<th>F</th>
<th>Sig.</th>
<th>Partial Eta Squared</th>
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<td>Corrected Model</td>
<td>Question_Score</td>
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<td>54.831</td>
<td>32.279</td>
<td>.000</td>
<td>.339</td>
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<tr>
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<td>Affective_Learning</td>
<td>468.700(^b)</td>
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<td>468.700</td>
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<td>Affective_Behaviour</td>
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<td>262.159</td>
<td>4.461</td>
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<td>Intercept</td>
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<td>.935</td>
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<td>63</td>
<td>100.659</td>
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<td>63</td>
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<td>Total</td>
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</tbody>
</table>

\(^a\) R Squared = .339 (Adjusted R Squared = .328)
\(^b\) R Squared = .069 (Adjusted R Squared = .054)
\(^c\) R Squared = .066 (Adjusted R Squared = .051)
Table 3: Estimated Marginal Means (Pre and Post-NBFP)

<table>
<thead>
<tr>
<th>Dependent Variable</th>
<th>Pre/Post</th>
<th>Mean</th>
<th>Std. Error</th>
<th>95% Confidence Interval</th>
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<td>Question_Score</td>
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<td>1.915</td>
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<td></td>
<td>Post</td>
<td>4.212</td>
<td>.227</td>
<td>3.759</td>
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<td>40.250</td>
<td>1.774</td>
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<tr>
<td></td>
<td>Post</td>
<td>34.879</td>
<td>1.747</td>
<td>31.389</td>
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<td>39.562</td>
<td>1.355</td>
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<tr>
<td></td>
<td>Post</td>
<td>35.545</td>
<td>1.334</td>
<td>32.879</td>
</tr>
</tbody>
</table>

As can be seen in Table 3 the Pre-NBFP survey had a higher Affect_Learning mean (M = 40.25, SD = 8.69) than the Post-NBFP survey (M = 34.88, SD = 11.18). This indicates that student affect towards the module dropped, F(1, 63) = 4.66, p = 0.035, partial eta squared = 0.07. However, this result does not reach statistical significance when using a Bonferroni adjusted alpha level of 0.017. Therefore Hypothesis B is not supported. Indeed, the results suggest that the students’ affect towards the module dropped after participating in the NBFP.

The qualitative data gathered in this regard are mixed. Approximately half the comments contributed on the Post-NBFP regarding affect were positive. Examples include ‘I thought it was a brilliant way to learn. Pure genius’ and ‘Interesting project, I have learned a lot from it and would be interested in participating in a similar project again’. However, the remaining comments were negative. Examples of such comments include ‘Prediction market was very confusing’ and ‘I believe it is more relevant to know what the budget actually brings’. The focus group was much more supportive of the prediction market project, agreeing that the project was interesting, useful, and worth doing again. Overall, data suggests that the NBFP had a negative effect on affect towards the module.

The Pre-NBFP mean (M = 39.56, SD = 9.06), shown in Table 3, was higher than the Post-NBFP mean (M = 35.55, SD = 6.02) suggesting that students’ affect towards the behaviors encouraged by the project, such as searching for information on tax, actually declined over the course of the module. The result is not statistically significant using a Bonferroni adjusted alpha level of 0.017, F(1, 63) = 4.46, p = 0.038, partial eta squared = 0.07. Hypothesis C is, therefore, not supported.

Comparatively little qualitative data was collected from the post-NBFP surveys regarding affect towards behaviors encouraged by the project. The focus group provided more insight, advancing a possible explanation for the observed result. Focus group participants agreed that during the course of the project they did search out emerging tax-related information. However, they considered it unlikely that they would persistently engage in this activity without a specific reason. One member of the group commented that the experience of deliberately searching out information for the purposes of the project highlighted how little of that behavior they typically engaged in and made them more aware of how difficult it was to remain informed. The implication being that without a valid reason, the participant was unlikely to invest the effort required to stay informed.

Conclusions

This paper confirms that prediction markets are a useful pedagogical tool. Bolstering previous results, it demonstrates that prediction market participation has a positive effect on the cognitive domain of learning. Using both qualitative and quantitative data, this paper demonstrates that participation in a prediction markets prompts information search and analysis, creating a learning environment to encourage students to develop information literacy skills. The paper provides evidence that participation in a prediction market enhances a student’s general disciplinary knowledge. Finally, the findings suggest that prediction market
participation negatively impacts upon students’ affect towards a module and students’ affect towards the behaviors encouraged by a module.

References


Why Increased Social Presence through Web-videoconferencing does not Automatically Lead to Improved Learning

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Abstract: The Community of Inquiry (CoI) model provides a well-researched theoretical framework to understand how learners and teachers interact and learn together in Computer Mediated Communication (CMC). Most CoI research focusses on asynchronous learning, while with the arrival of easy-to-use synchronous communication tools the relevance of the CoI model needs verification. Synchronous communication is (assumed to be) superior in establishing discourse due to the ability to express immediate feedback, intonation, body language, and thus the affordance to increase social presence. In a quasi-experimental design, we analysed whether increased social presence led to (perceived) improved learning satisfaction and retention. That is, the learning experiences of 147 students using discussion forums and 256 students using web-videoconferencing over seven consecutive summers (2005-2011) were contrasted using the Students Evaluation of Online Remedial Education Experience questionnaire. Results indicate that students in the web-videoconference design were not more satisfied about their learning experiences, except for the clarity of goals and tasks. Furthermore, in the four years of using the web-videoconference design, a lower retention rate was found compared to the discussion forum designs in the years before. Although web-videoconferencing affords more social presence, more research is needed on how to effectively use synchronous communication in e-learning.

Introduction

Current developments in Computer Mediated Communication (CMC) show that communication tools become increasingly rich, offer more opportunities for synchronous communication resembling face-to-face situations. For instance, synchronous communication tools like Skype or Adobe Connect facilitate real-time communication through audio, video, chat, shared whiteboard facilities, or a combination of those. Recent research in CMC has proposed that synchronous communication, such as videoconferencing (like Skype, Elluminate or Adobe Connect), fosters more direct social interaction and feedback amongst learners and teachers than asynchronous communication which would lead to higher levels of learner engagement (Hrastinski, Keller, & Carlsson, 2010; Strømsø, Grøttum, & Lycke, 2007).

In terms of the well-researched Community of Inquiry framework (Garrison, 2007; Garrison, Anderson, & Archer, 2000), it can be argued that synchronous communication in online learning fosters social presence (the affordance to show your personal characteristics to others (e.g., see Kirschner, Strijbos, Krejns, & Beers, 2004)) stronger than it fosters cognitive presence (meaning construction through communication), or teaching presence (the facilitation of social and cognitive presence). Indeed, synchronous communication fosters more direct interaction and has been found to increase the sense of community (Dawson, 2006) and to be experienced as more social (Chou, 2002). However, some studies suggested that an increase in social presence not necessarily leads to an increase in the quality of collaboration (Caspi & Blau, 2008; Rogers & Lea, 2005). As a result, using rich synchronous tools with more social presence may not automatically equate to a better learning experience. Therefore, this study compares learner satisfaction and retention rates on an e-learning course between cohorts of learners using asynchronous communication tools and cohorts using both asynchronous and synchronous communication tools.
Social presence and communication in CMC

In CMC, learners have to construct meaning and co-construct knowledge in a blended or entirely online setting. The Community of Inquiry framework (Garrison, 2007; Garrison et al., 2000) provides a theoretical model that helps to understand how learners and teachers interact and learn together in CMC, by making a distinction between cognitive presence, teaching presence, and social presence. Cognitive presence is defined as “the extent to which the participants in any particular configuration of a community of inquiry are able to construct meaning through sustained communication.” (Garrison et al., 2000, p. 89).

In other words, the extent learners use and apply critical inquiry in discussions is the key feature of cognitive presence. The second component is teaching presence, whereby Anderson, Rourke, Garrison and Archer (2001) distinguish three key roles teachers have that impact upon teaching presence in CMC environments, namely instructional design and organisation, facilitating discourse, and direct instruction. The third component of CoI and the key focus of this study, social presence, addresses the need to create and establish a social learning space for learners to critically engage with discourse in CMC settings (Giesbers, Rienties, Gijselaers, Segers, & Tempelaar, 2009; Rusman, Bruggen, Cörvers, Slop, & Koper, 2009; Van den Bossche, Gijselaers, Segers, & Kirschner, 2006).

Garrison et al. (2000) have extended the traditional definition of social presence from the focus of the medium and the potential to communicate (see Short, Williams, & Christie, 1976) to the actual communication observed by focussing on the way learners can present themselves onto the group defining it as “the ability of participants […] to project their personal characteristics into the community, thereby presenting themselves to the other participants as ‘real people’” (Garrison et al., 2000, p. 89). For example, asynchronous discussion forums have a perceived low degree of social presence as only text can be transmitted and there is a delay in response (Tu & McIsaac, 2002). Using web-videoconference whereby participants not only can chat but also provide direct feedback based on the audiovisual information shared by other participants have a medium to high degree of social presence (Giesbers et al., 2009; Wegge, 2007).

Several researchers (Caspi & Blau, 2008; Schellens & Valcke, 2005) have found that CMC environments only provide a meaningful and worthwhile learning experience if participants actively contribute to discourse and co-construct knowledge collaboratively. Nonetheless, it has been argued that when using asynchronous communication like discussion forums learners have to cross a substantial threshold before they start making contributions (Garrison, 2007; Rienties, Giesbers, Tempelaar, & Lygo-Baker, 2012; Rienties, Tempelaar, Van den Bossche, Gijselaers, & Segers, 2009). This may, for example, be due to the fact that learners often find it difficult to integrate various points of argumentation in order to provide resolutions to a learning task (Caspi & Blau, 2008; Rogers & Lea, 2005). By affording more social presence, enhancing the sense of community (Dawson, 2006) and increasing the information flow (Carr, Cox, Eden, & Hanslo, 2004), synchronous communication may remedy these issues and foster higher learner engagement. Still, asynchronous communication does allow for more time to reflect and thus for more refined contributions to the discourse at hand (Davidson-Shivers, Muilenburg, & Tanner, 2001; Hrastinski et al., 2010). A combination of synchronous and asynchronous communication in CMC in line with their affordances has been suggested to be beneficial for the sense of community, to enhance the learning process, and as a result to enhance learners’ satisfaction (Hrastinski et al., 2010; Johnson, 2006).

Recent research (Giesbers et al., 2009) found that an increase in social presence not necessarily leads to an increase in the quality of collaboration. In fact, participants using both web-videoconference (synchronous) and discussion forums (asynchronous) were less satisfied about the course design than students using discussion forums only. The development of a shared group identity has been suggested to be a more important factor than social presence, and when achieved, it may help even the leanest form of communication to be a successful tool of collaborative learning. Moreover, Rogers and Lea (2005) argued that visual cues of others might even distract a learners’ attention. As a result, using rich synchronous tools affording more social presence does not automatically equate to a better learning experience.

Because the population of web-videoconference users in the initial study were participating the first summer that web-videoconference was used, minor technical issues and an additional learning curve for students and teachers to use synchronous communication tools may have troubled its results. Therefore, in this article, we aim to build on the initial findings by extending the population with groups of students who participated by using web-videoconferencing in follow-up implementations of the same course. By including students who (we assume) have been more familiar with synchronous communication tools like Skype, and who have been tutored by teachers with more web-videoconference experience, we expect to find that enhanced social presence will lead to improved (perceived) learning and retention rates.
Research questions
Based on previous research where synchronous communication has been shown to enhance the sense of community and thereby student satisfaction (Dawson, 2006; McInerney & Roberts, 2004), we expect learners using (synchronous) web-videoconferences in addition to (asynchronous) discussion forums to be more satisfied about their (perceived) learning than learners using solely discussion forums (H1).

Similar to face-to-face settings, where the complexity of group dynamics that has been widely acknowledged (Decuyper, Dochy, & Van den Bossche, 2010; Järvelä, Järvenoja, & Veermans, 2008; Rienties, et al., 2009; Rusman, et al., 2009), group dynamics in online settings are strongly influenced by social interaction processes, as well as combinations of - and interactions between - different personal characteristics within a group (Järvelä, et al., 2008; Järvelä, Volet, & Järvenoja, 2010; Rusman, et al., 2009). However, several researchers have found that online teams need to spend more time and effort to develop an effective group collaboration processes (Giesbers, et al., 2009; Hrastinski, et al., 2010). Because synchronous communication allows for more direct and straightforward interpersonal interaction compared to asynchronous communication, and because it has been shown to enhance the sense of community (Dawson, 2006; McInerney & Roberts, 2004), we expect the development of group strategies to be supported more strongly by synchronous communication. We therefore hypothesise that learners using web-videoconferences in addition to discussion forums will be more satisfied about the group collaboration than learners using discussion forums only (H2).

In line with the CoI framework, we expect that teachers will find it easier to establish netiquette, and facilitate discourse and direct instruction in a synchronous learning environment (Anderson, et al., 2001; Rienties, et al., 2012). That is, teachers and learners are able to directly interact and provide feedback about each other’s needs and concerns, leading to less miscommunication to occur. Thus, we expect learners using web-videoconferences in addition to discussion forums to be more satisfied about the teacher presence than learners using asynchronous discussion forums only (H3).

Related to the previous hypothesis, in the CoI framework it is argued that it is important that the instructional design of an online course, and in particular its goals and tasks, are clear and well-understood by the learners (Chen & Jang, 2010). Given that synchronous communication allows for more direct feedback between teachers and learners, teachers can gauge whether learners have internalised the goals and tasks of a course and adjust their teaching accordingly. Therefore, we expect learners using web-videoconference in addition to discussion forums to be more satisfied about the clarity of goals and tasks than learners using discussion forums only (H4).

Although synchronous communication requires learners to be present at the same time, which in a way might restrict a learners’ autonomous learning processes (Rusman, et al., 2009; Segers, Van den Bossche, & Teunissen, 2003), the affordance of offering more direct feedback by using web-videoconferencing may help to limit the delay in monitoring activities and may positively affect a learners’ sense of competency (e.g. by providing timely content related feedback by both learners and tutors), sense of relatedness (e.g. by making contact moments and feedback more direct and personal), and sense of autonomy (i.e. by providing timely process-related feedback). We therefore expect that learners using web-videoconferences in addition to discussion forums will be more satisfied about the opportunity to self-determine their learning compared to learners using discussion forums only (H5).

Research has shown that appropriate assessment and feedback methods are crucial for learning, whether in face-to-face or in online contexts (Rienties, Tempelaar, Waterval, Rehm, & Gijselaers, 2006). Assuming that synchronous communication supports direct clarification of goals and tasks and enhances social presence and teacher presence, we expect that learners using web-videoconferencing will be able to critically engage with the various tasks, receive appropriate feedback and as a result also perceive the assessment methods as more appropriate. Thus, we hypothesise that learners using web-videoconference in addition to discussion forums are more satisfied about the appropriate assessment methods than learners using discussion forums (H6).

Finally, in line with the findings of Johnson (2006), who suggests a combination of synchronous and asynchronous communication in online learning fosters both higher levels of student satisfaction as well as performance in a course, we expect that successful completion rates of an online module will be higher for learners using web-videoconferencing compared to learners using discussion forums only (H7).
Method

Setting
The present study took place in the context of an online summer course economics for prospective bachelor students of an International Business degree program at an Institute for Higher Education in the Netherlands. This summer course is part of a wider summer course program that has been offered since 2004 (see Rienties, et al., 2006), the primary aim of this course was to bridge potential gaps in economics knowledge prior to study on a degree program (Rienties, Tempelaar, Dijkstra, Rehm, & Gijseelaers, 2008; Tempelaar, Rienties, Giesbers, & Schim van der Loeff, 2012). The online course was delivered over a period of six weeks within which learners were assumed to work for 10-15 hours per week. Participants never met face-to-face before or during the course and therefore had to learn economics using the CMC environment exclusively. The CMC environment included all course background information, literature, and communication tools.

Tasks and Discussion Themes.
The course design was based on principles of Problem-based learning (PBL; for a recent review of PBL, see Schmidt, Van Der Molen, Te Winkel, & Wijnen, 2009) by letting groups of students collaboratively solve six authentic problems. These problems were constructed to simulate real-world settings but in a semi-structured manner, using a simple-to-complex sequence (Schmidt, et al., 2009; Segers, et al., 2003), whereby the learners themselves could decide their learning actions and future directions. In PBL, learners’ acquisition of knowledge and problem-solving skills is scaffolded according to the so-called ‘seven-jump method’ (Schmidt, et al., 2009; Segers, et al., 2003, Rienties, et al., 2012; Rienties, et al., 2009).

Learners participated in a collaborative learning environment using seven discussion forums. There was one café-forum for social and non-task related interaction and six task-related forums, each dedicated to one task. The first two tasks were introductory and addressed basic terminology of micro - (task 1) and macro (task 2) economics to get a feel for the domain. The following tasks focussed on current authentic problems within micro-economics (tasks 3-4) and macro-economics (tasks 5-6) which became increasingly complex. The CMC environment, tasks, course materials, and assessments were identical in all three settings (see below), although the themes of the tasks were updated to reflect the then current debates in economics.

Three Cohorts of Learners
The population in this study was drawn from three design settings of learners in the same course but in different settings. The three design settings that form the context of this study all originated from the principles of ePBL designed with the first implementation of the summer course economics in 2005 and thus share the above mentioned basis.

ePBL design using discussion forums (2005-2006).
This is the initial design of the course where participants discussed task-related and non-task related subjects using the seven discussion forums. Detailed descriptions of this design have been published elsewhere (See Rienties, et al., 2012a for an elaborate description of the Optima design). In comparison to a typical application of PBL in face-to-face classroom settings, in ePBL the phases of the traditional seven jump might be less obvious as learners interacted with the materials and discourse with peers at various times during a week. In other words, in ePBL learners had a large degree of autonomy in the way how, what and when to contribute.

Optima design using discussion forums and additional scaffolding (2007).
The second implementation of the course was a redesign of the first, offering more explicit scaffolding of the various learning process phases, as well as a more explicit articulation and reflection of activities within the various PBL jumps aimed at supporting higher levels of knowledge construction (see Rienties, et al., 2012 for an elaborate description of the Optima model). For example, an explicit elaboration of seven-jump “Step 4: Elaborate on your findings in Step 3” was added to encourage more interaction, elaboration and higher cognitive discourse. Furthermore, specific scaffolds were given by providing a simple schematic overview (Optima card) that showed which part of the discussion and learning process was represented by each of the seven jumps. The process of going through the seven jumps was further scaffolded by
additional rules. For example, learners could only proceed to answering a particular learning goal (the third jump) when at least three (25% of group members) learners agreed (by using a “thumbs-up” button) with the formulation and relevance of that learning goal.

**VC design using web-videoconference and discussion forums (2008-2011).**
In the third design, participants used a discussion forum and some of the scaffolds (like the Optima card) that were offered in the previous design. The restrictive rules to follow through the seven-jump process, however, had been abandoned because these were found to have a negative impact on student engagement (Rienties, et al., 2012). In addition, four web-based web-videoconferences were organised, separately for each group. The first web-videoconference started with a personal introduction by all participants, followed by an explanation of the content and procedures of the course. Afterward, a pre-discussion of the introductory tasks took place. In the second meeting the introductory tasks were post-discussed, and the next tasks were pre-discussed, etc.

During the web-videoconferences, participants could decide which (combination) of the available tools (chat, audio, camera) they would use. No special hardware was needed to hear and see the audio and video from others and to participate in chat, though a headset and/or webcam were needed to share their own audio and/or image. Most recent findings show that the participants in the videoconferences primarily used all tools of audio, video and chat together to communicate with each other (Giesbers, et al., submitted). The time between the web-videoconferences was dedicated to self-study. For each task, if learners came up with new learning goals during self-study, they could post and discuss this in the designated discussion forum.

**Participants**
Participants were selected for the course based on their scores on an entry assessment in economics (see Rienties, et al., 2006 for more detail). In total, 82 participants were randomly assigned to one of six teams in the ePBL design, 60 participants were randomly assigned to one of five teams in the Optima design, while 274 participants were randomly assigned to one of 22 teams in the VC-design. The 34 teams had an average of 12.29 members (SD= 3.47, range = 7-23). The average age was 19.95 (SD = 2.26) years and 45% of the learners were female. Based on the scores on a demographic entry questionnaire, we could ascertain there were no significant differences in gender, age, ICT skills and previous e-learning experience between participants across the three conditions.

**Instruments**

**Evaluation questionnaire.**
The Students’ Evaluation of Online Remedial Educational Experience (SEOREE) of the summer course economics was used to measure the learning experience of the students (Rienties, et al., 2006). This measure has been used in a variety of online courses for prospective Bachelor’s and Master’s students in The Netherlands. The original questionnaire developed in 2005 consisted of 34 questions on a Likert scale ranging from 1 (totally disagree) to 5 (totally agree). In the initial design of the questionnaire, based upon a literature review and initial pilot of remedial education in 2004, seven key concepts of online learning in a collaborative remedial setting (Rienties, et al., 2012; Rienties, et al., 2009) were identified: appropriateness of assessment; flexibility of course design; relevance of course materials; clarity of goals and tasks; the power of group collaboration; support and instruction by the teacher; and finally, learning satisfaction. For each of these concepts at least two items were constructed. Furthermore, the number of hours worked were measured and a textbox for open comments was included. For both the ePBL cohort and the Optima cohort, the same questionnaire has been implemented. For VC cohort, two items about the entry-test (e.g. “The entry test on the UM website was a good test to show me what I did know and what I did not know”) were removed as most participants reacted similar to this question. The response rates for the ePBL, Optima and VC cohorts were 83%, 77%, and 56%, respectively, leading to a moderate to high average response rate of 64%.

In order to verify the construct validity of the instrument, an exploratory factor analysis (principal component analysis) was performed with direct oblimin rotation. Based upon screeplots and separate factor analyses with 3-7 factors, the best fit both in terms of statistical and theoretical relevance was for a six factor model, explaining a total of 53% of variance. Table 1 gives an overview of these factors.
Summary of Results

In order to be able to aggregate the SEOREE scores per cohort, we first verified whether the scores within each cohort were similar as both the ePBL and the VC cohort incorporated multiple years. An independent samples t-test comparing SEOREE scores between 2005 and 2006, and an ANOVA comparing the three years of the VC cohort revealed it would be possible to aggregate the data for their respective cohort.

Overall, taking a cut-off value of 3.5 as representing a good learning experience, most students were positive about the Learning experience (79%); Teacher presence (86%), Goals and tasks (71%), the possibilities for Self-determined learning (61%), and Assessment (74%). With 48% above 3.5, scores on Group collaboration were slightly lower. When scores are taken separately per cohort and/or per year, all average values are above 3.5 with the exception of scores on Group collaboration in the Optima design, and both the 2008 and 2010 implementations of the VC design.

An ANOVA showed no significant differences across the three designs, with the exception of the Group collaboration scale ($p < .01$). Post-hoc tests showed scores on this scale were significantly lower in the Optima condition. Given that the number of participants in the VC design was substantially higher than the other two conditions, we checked whether it was possible to aggregate the data of the ePBL design with the data of the Optima design as both only employ discussion forums. Except for lower group collaboration scored for the Optima design compared to ePBL design, an independent samples t-test showed no differences in the SEOREE scores between both cohorts. Therefore, we merged scores for both designs in order to create a cohort of discussion forums only ($n = 115$) and a cohort of videoconferencing and discussion forums ($n = 152$) that were more comparable in size. In contrast to our expectations, we did not find any significant difference in SEOREE scores between these new cohorts on Learning experience, Group collaboration, Teacher presence, and Self-determination. A notable exception is that participants in the VC condition were more positive about the clarity of Goals and tasks of the module, thereby providing support for our fourth hypothesis.

Finally, the pass rate of students participating in the discussion forums design (55%) was significantly lower than the pass rate of students participating in the VC design (41%). Thus, in contrast to our expectations, we have to reject our seventh hypothesis. Participants who failed the summer course reported significantly lower on all the six factors of SEOREE, irrespective of the design they participated in. A follow-up independent samples t-test of students who failed the course showed that students in the VC condition scored almost identical to students using discussion forums only, although students in the VC design scored marginally higher ($p < .1$) on the Group collaboration scale. Similarly, students who passed the course in the VC design had similar SEOREE scores to students in the discussion forum designs, except for lower scores on the self-determined learning scale, and marginally lower scores on the assessment scale.

In sum, we did not find confirmation for our first, second, third, fifth, sixth, and seventh hypothesis. Participants using web-videoconferencing indicated to be equally satisfied about their learning experience as participants who used tools with a lower social presence that is discussion forums.

Discussion

In this quasi-experimental study of 418 students across seven years of implementation of an online distance program in economics, we found that providing more social presence in a Community of Inquiry did not lead to an improved learning experience. This finding is in sharp contrast to our initial expectations and arguments that enhancing the abilities of learners to project their personal characteristics in an online community would lead to more engagement and interaction, which in turn was expected to positively

<table>
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<th>Factor</th>
<th>No. of items</th>
<th>loading range</th>
<th>Eigenvalue</th>
<th>Cronbach α</th>
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<td>1. Learning experience</td>
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<td>8.18</td>
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<td>2. Group collaboration</td>
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<td>0.40 - 0.83</td>
<td>2.42</td>
<td>0.80</td>
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<td>3. Teacher presence</td>
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<td>0.46 - 0.68</td>
<td>1.75</td>
<td>0.73</td>
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<tr>
<td>4. Goals and tasks</td>
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<td>0.76 - 0.78</td>
<td>1.48</td>
<td>0.72</td>
</tr>
<tr>
<td>5. Self-determined learning</td>
<td>2</td>
<td>0.61 - 0.71</td>
<td>1.35</td>
<td>0.61</td>
</tr>
<tr>
<td>6. Assessment</td>
<td>3</td>
<td>0.55 - 0.73</td>
<td>1.23</td>
<td>0.63</td>
</tr>
</tbody>
</table>
influence learning. Furthermore, the significantly lower retention scores in the VC design, which was 14 percentage points lower than in the discussion forum condition, is further evidence that not all learners were able to effectively learn in a setting that offers (in theory) a lot of powerful tools that afford establishing social presence. In all four summers where web-videoconferencing was implemented, the retention scores were significantly lower than the initial (ePBL) discussion forum condition, thereby strengthening our findings that fewer students were able to complete the course when together working with web-videoconferencing tools.

One possible explanation for the similar learning experiences and lower learning outcomes in the VC design may be that the degree to which students actually used ICT tools was (in part) determined by the interaction amongst participants. As argued by Rogers and Lea (2005), even in settings with low social presence, such as discussion forums, when learners are able to develop a shared group identity, they can establish and build a powerful learning experience. The similarity between the ePBL design and the VC design on the group collaboration scale points in the direction that a shared group identity was not enhanced by offering web-videoconferences.

A second explanation may be that the success of using a technology is strongly related to the learners’ acceptance of technology. For example, in the Technology Acceptance Model (Davis, 1989) the use of ICT is directly preceded by the intention to perform this behaviour which in turn is determined by the perceived ease of use and the perceived usefulness to use technology. Most likely, the majority of the population were familiar with discussion forums but perhaps the perceived ease of using audiovisual technology (i.e. a headset and/or webcam) and the perceived usefulness of meeting fellow-participants in the web-videoconferences might have discouraged some participants who were less confident about their technological expertise, their ability to engage actively to synchronous cognitive discourse or the purpose of the web-videoconferences in general.

A third possible explanation may be related to the degree to which a learning environment provides an appropriate balance between autonomy and structure (Rienties, et al., 2009). Students in the VC design who successfully passed the module were less satisfied about their ability to self-determine their own learning. That is, a strong advantage of discussion forums is that learners can interact at a time and place of their convenience (Chen & Jang, 2010; Järvelä, et al., 2008; Rienties, et al., 2009), while participants in the VC design were expected to be present online at a particular time for four times. Although this time was determined and agreed upon by all participants in the group (rather than by a teacher setting a time), participants who were unable to join the next web-videoconference may have felt less involved in the learning process.

**Limitations**

The results of this study are based on a seven year consecutive implementation of an authentic online summer course in economics, using quasi-experimental research methods. A limitation of this study is that we did not measure the interactions between individual and mutual conceptions, emotions and shared regulation among participants (Giesbers, et al., Submitted), or explored how the actual learning processes and contributions to cognitive presence and social presence in the various discussion forums and web-videoconferences developed over time. However, a particular merit of this research is that we were able to consecutively implement the three designs over a total of seven years. As our findings were consistently replicated in all designs across the years of implementation, and we did not find any differences amongst participants in the three designs in terms of demographic characteristics, ICT and e-learning experience, we feel that robust evidence is present that in our context increasing social presence in the form of web-videoconference does not automatically lead to more satisfied students.

**Future Research**

Future research should investigate how web-videoconferencing can be better integrated into the design of distance education, as we are convinced that its affordances can help to provide and develop a powerful and interactive learning experience for distance learners. At the same time, we recommend researchers to analyse how learners mutually influence each other in synchronous collaborative e-learning. That is, future research should assess how the type of motivation and the degree of self-determination and technology-acceptance of a learner influences the behaviour of other learners.
References


Learning to Apply the Principles of the Development Centered Paradigm to Foster Functional Maturity in Learners

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Abstract: Education around the globe is in a crisis state, and the effectiveness of educational programs is being challenged in many quarters. As an antidote for this educational malaise, we propose the Development Centered Paradigm, which involves 12 principles that are applied to foster the creation and refinement of 11 defining characteristics of Functionally Mature Individuals. This paper, which summarizes the thrust of our workshop, describes the 12 principles of the Development Centered Paradigm and the 11 characteristics of Functional Maturity, and then discusses a practical DCP application in an Information Management in Practice course taught at the University of Amsterdam. This application identifies the DCP principles that were utilized and the characteristics of Functional Maturity that were nurtured.

Critical Challenges for Education

Not only are the world economy and financial markets in a crisis, so is education around the globe! Education (for business or other careers) is not up to par: the level is too low; it does not properly prepare students for the professional world; it does not teach the right things; and it is hopelessly outdated. These allegations and many other such ‘insults’ are hurled at the education profession with almost daily frequency. None of these criticisms is new and most have some element of truth embedded in them.

Equally ‘old’ is the fact that all the people and parties meddling in the discussion about education cannot agree on what education should be about and what it should achieve. Should education be more about knowledge or about skills and competencies? Should education provide more structure and class hours for the learners or give them more responsibility and focus more on self-guided learning? Should education be about ‘Bildung’ (1) or should it be about job-specific knowledge and skills? The list of questions seems to be endless.

Much of the discussion on education seems to be stuck in the past; it’s an either-or discussion regarding educational models — most notably the Teaching Centered Model and the Learning Centered Model — that have been (moderately) successful in the past. The solution has been a choice between a model that we know versus another model that we know. Somehow, many people — including many educators — cannot seem to approach education completely differently than in the manner to which they have become accustomed. But education needs something different from the comfortable and familiar educational paradigms we have used in the past. Global society has changed. We cannot continue to conceive of education as having one purpose, one direct beneficiary, one goal, and one best pedagogical (or andragogical) method — and then argue about what these are or frequently switch preferences.

In our view, education simultaneously has multiple purposes, multiple direct beneficiaries, multiple goals, and multiple methods. We should transcend the ‘traditional’ models of Teacher Centered and Learner Centered education in order to simultaneously address these multiple purposes, beneficiaries, goals, and methods — and by doing so challenge, empower, and inspire learners. We propose an educational paradigm that is based on human development — intellectual, psychological, physical, emotional, interpersonal, and moral. It is a paradigm that brings forth Functionally Mature Individuals; namely, persons who know who they are, know what they want, and have the courage to pursue it without forgetting to consider others or the bigger picture (McCuddy and Reeb-Gruber, 2008, p.4 and p.13). It is a paradigm that revolves around the learners’ interests, curiosities and talents. In short, we propose the Development Centered Paradigm (DCP).
The 12 Principles of the Development Centered Paradigm

Principle 1: Education has multiple purposes, which are to help people develop their capacities to deal with future uncertainties, develop the capacity to balance their pursuit of self-interests with their obligations to the broader societal community, develop their character, acquire the competencies needed for the profession of their choice, develop their capacities for guiding and leading people and change, develop the capacity to transcend cultural boundaries in a global society, develop into the best that they can be, and learn to live and love well. Principle 2: The educational enterprise has multiple direct beneficiaries, including learners themselves, educational institutions, prospective employers, and the broader community or society.

Principle 3: Education can be accomplished more effectively when the focus of the educational enterprise is placed upon human development — intellectual, psychological, physical, emotional, interpersonal, and moral. Principle 4: Effective human development begins with the learners’ interests, curiosities, and talents. Principle 5: Human beings, at all ages, have the capacity for meaningful and effective self-directed exploration and learning. Principle 6: Effective human development empowers learners through self-determination of the subject content they will master and competencies they will acquire. Principle 7: Effective human development empowers learners through self-determination of the methodology they use for acquiring knowledge and mastering competencies. Principle 8: Effective human development is fostered more through the learners’ intrinsic satisfaction than through extrinsic reinforcement. Principle 9: As learners master their self-determined content through their self-determined learning methods, thereby making progress on fulfilling their own developmental plans, they become more Functionally Mature Individuals.

Principle 10: Learners are the primary creators and executors of their developmental habitats. As such, learners (need to) play a central role in their education, starting with taking personal responsibility for and exercising personal control over their own development. They need to objectively and fully assess their interests, curiosities, and talents as these pertain to personal and vocational activities and aspirations so that they can create a personal development plan that specifies the intended growth for their present and future personal lives as well as their work lives, content objectives, and the methods and learning activities for attaining those objectives, drawing where and when necessary upon the facilitative guidance of professional academics and professionals in their chosen field of endeavor. Next, the learners should faithfully execute their self-determined, personal educational plan and seek out, on an as-needed basis, guidance, information, and instruction from teachers/instructors/professors. Finally the learners should engage in regular assessment of progress in fulfilling their personal educational plan, engaging, as appropriate and necessary, educators in this process.

Principle 11: Educators become collaborators and co-creators with learners. In this role educators are expected to inspire a passion among learners for self-determination of, personal control over, and personal responsibility for their own development and to help students assess their interests, talents, and curiosities. Their role is to challenge students and to facilitate the development of the learners’ self-determined personal educational plan. This entails guiding/helping students to figure out which competencies are critical for credentialing purposes and to encourage learners to meaningfully and substantially expand their developmental horizons by incorporating into their personal educational plan those activities which capitalize on the learners’ interests, curiosities, and talents. Educators should facilitate encounters with ‘role models’ who fit the student’s desired development. Effectively responding to learners’ requests for information, guidance, and/or needed specialized instruction is also part of educators’ tasks, as well as responding to learners’ requests for instructional modules that address their interests, needs, and desires, and/or are critical for credentialing. They should offer reflection opportunities, both guided and unguided and collaborate with learners in assessing their progress toward fulfillment of the learners’ self-determined personal educational plan. Finally, the role of the educators is to be an effective role model of the defining characteristics of Functionally Mature Individuals.

Principle 12: Higher education institutions collaborate in the developmental process by providing the needed social and physical infrastructure. The roles played by higher education institutions include the following seven specific responsibilities: to offer a challenging and facilitative learning environment (i.e., materials, meeting spaces, information technology facilities, experts, coaches, etc.); to facilitate encounters with experts, professionals, and role models who exhibit the characteristics of Functionally Mature Individuals; to facilitate exposure to different perspectives, both national and international; to facilitate encounters with a variety of people (i.e., age, gender, culture, and so forth); to offer a safe learning environment; to certify, verify, or vouch for the students’ competence and maturity; and to explain the DCP.
educational philosophy to (skeptical) outsiders — prospective students, potential employers, accrediting agencies, professional licensing bodies, government, society, etc.

**The Defining Characteristics of Functionally Mature Individuals**
The Development Centered Paradigm focuses on nurturing human potential by facilitating the creation and refinement of *Functional Maturity* in individual learners. Functionally Mature Individuals share a set of defining characteristics; a person who has every one of these defining characteristics would represent, in our view, the ultimate expression of human potential — that is, fully developed in knowledge, competencies, compassion etc. such that s/he is better able to lead an intellectually, psychologically, emotionally, morally, and behaviorally enriched life. Functionally Mature Individuals:
- are self-aware;
- proactively reflect on situations, attitudes, and behaviors, and using it to guide decisions and actions;
- are actively aware of the synergistic relationship between emotion and intellect;
- consider alternate perspectives;
- are aware of the moral implications of their decisions and actions;
- balance self-interests with the interests of other individuals, communities, and society at large;
- are genuinely willing to risk making mistakes and to learn from them;
- know when to let go of disappointment, anger, and/or grudges that get in the way of achieving their goal, that cause them to lose focus, and/or that might significantly change the desired solution or outcome;
- can deal effectively with uncertainty;
- are flexible in switching between behaviors and knowing when a specific behavior is appropriate or inappropriate; and
- know how to act in any type of situation, either personally or professionally.

**Illustrating the Application of DCP Principles to Foster Functional Maturity**
For illustrative purposes, we describe in detail one of numerous applications of different subsets of DCP Principles. This particular application occurred in a course entitled *Information Management in Practice* that is taught in the final year of the Master in Information Management at the University of Amsterdam. Teachers of the course, unhappy with the Teacher Centered Paradigm being used in the course, experimented with a practical restructuring of the course in a manner consistent with the Development Centered Paradigm.

We propose that *being, doing, loving (interacting), and having* from Quality of Life (QOL) theory can be linked to the Development Centred Paradigm as proposed by McCuddy and Reeb-Gruber (2010) in becoming a Functionally Mature Individual. Definitional components of Functional Maturity are reflected in columns 2-5, and of QOL are reflected in rows 2-5 in TABLE 1 below.

<table>
<thead>
<tr>
<th>QOL</th>
<th>Knows Who He Is</th>
<th>Knows What He Wants</th>
<th>What He Has Courage to Pursue It</th>
<th>Considering Self in Relation to Others</th>
</tr>
</thead>
<tbody>
<tr>
<td>Being</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td>Doing</td>
<td>x</td>
<td>X</td>
<td>x</td>
<td>X</td>
</tr>
<tr>
<td>Loving (interacting)</td>
<td>x</td>
<td>X</td>
<td>x</td>
<td>X</td>
</tr>
<tr>
<td>Having</td>
<td>x</td>
<td>x</td>
<td>x</td>
<td>X</td>
</tr>
</tbody>
</table>

As can be seen in the matrix presented in Table 1 above, the concepts of QOL and FMI align very well where knowing who he is, is strongly linked to being; knows what he wants is linked to loving and having; and possessing the courage to pursue it is linked to being and doing. Finally, considering others and the bigger picture (society) brings all elements of QOL together in a meaningful combination of being, doing, loving, and having. The X indicates the most important link between QOL and the FMI characteristics, whereas it can be argued that QOL components can be linked to more FMI components as critical reflection by the learner on how being, doing, loving, and having is intertwined with knowing who
he is, knowing what he wants, and having the courage to pursue it, whilst considering self and his contribution to society. The weaker links are marked as x.

‘Knowing who you are’ is primarily linked to being: options for participation and self-realization such as political participation, possibilities of influence, the possibility of exercising a meaningful professional occupation and free time activities, and making choices (Allardt, 1973, 1993; McCuddy & Reeb-Gruber, 2010). ‘Knowing what you want’ is primarily linked to loving: needs for belonging and social relationships, in the neighborhood, family, friends, participation (Allardt, 1973, 1993). But certainly it is also linked to having: material dimensions as economic resources, living conditions, work conditions, health, education, and the environment (Allardt, 1973, 1993). ‘Having the courage to pursue it’ is primarily linked to doing in the sense of the capability of a person represents the various alternative combinations of beings and doings from which a person can choose (Sen, 1995; Kontos, 2004). ‘Considering (self and others) in society’ ultimately brings together dimensions of quality of life as being, doing, loving, and having with the characteristics of a Functionally Mature Individual who knows who he is, knows what he wants, has the courage to pursue it, while contributing to self and society. Linking the FMI and QOL dimensions thus opens new windows of opportunity to innovate in education — going beyond existing practices of teaching and learning in truly enabling learners to co-construct personal and societal quality of life and becoming a Functionally Mature Individual in the process.

In redesigning the Information Management in Practice course, several challenges had to be addressed. Students in Information Management see real world problems as information management problems, and obviously issues are more complex than that. Secondly, students were never asked before, who they are and what they want, how to pursue it and contribute to society? To design a curriculum that is open, loosely structured, without fixed literature is unusual in a formal university setting. These challenges were addressed by the teachers by drawing on emerging knowledge about DCP and FMI as well as QOL dimensions. Apart from students and teachers, professionals were attracted as coaches for student teams linking learners’ personal passion to generating lasting value for society.

The 2007 course design allowed for the following Quality of Life dimensions of being, doing, loving and having, while putting the student at center stage: (a) Being: freedom to define personal passion and choose a real world social issue. (b) Doing: work on the issue in a team of approximately four to five students with a similar passion for four months of co-constructing (lasting) value. (c) Loving: reach out to people in the real world. (d) Having: to generate (lasting) value for self and clients/networks served.

Reflection

The course design reflects a combination of the extended Quality of Life concept of being, doing, loving (interacting), and having, to empower learners in the transformation to become more functionally mature. As such the course is a real life example of the application of the principles of human development via the Development Centred Paradigm. Learners know better who they are and what they want themselves. They actually have the courage to pursue it, thereby making a real contribution for themselves, and through the client organization, to society. At least in 15 out of 18 cases this statement is valid. As explained in 3 cases, students failed to connect to real problem owners, so the value of their efforts was limited to gaining personal experiences without connecting to society.

This raises questions about the role of teachers and practitioner/coaches during the course. Meetings before, during, and after the course provided moments of reflection on tasks and behavior. In DCP the role of both teachers and practitioners is that of a coach. Each team of four to five students could rely on a teacher and on a practitioner for coaching/guidance in the development process. During team meetings with teachers and practitioners students were encouraged to raise questions that pertained to functional maturity. Who aim I? What do I want to contribute and get out of it? Where should I pursue it? What is my own contribution and that of my team to society in this particular case? The process of students raising these questions provides opportunities for teachers and practitioners/coaches to gently intervene, to offer advice and guidance to help students examine and critically analyze their chosen directions. The difficult part for teachers and practitioners is to withhold any personal preferences, to stop teaching and offering advice and guidance to help students examine and critically analyze their chosen directions. Peer review sessions between teachers and practitioners provide moments for sharing experiences, interventions, and impact on students’ development. This clearly relates to the 11th principle of DCP where as teachers become collaborators and co-creators with learners. Indeed we see our role as teachers to be responsible for inspiring passion for learners’ self development, to help students to assess their interests, talents, and curiosities, to trigger students’ interest and to challenge them. The Information Management in

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Practice Course provides students with the opportunity to develop a personal educational plan to expand their horizons and embark on activities that capitalize on their own talents. Meanwhile, teachers and practitioners/coaches act as role models and as co-creators.

Endnotes
(1) ‘Bildung’ is a German word/concept that is defined as “education, any process, either formal or informal, that shapes the potential of a maturing organism. Informal education results from the constant effect of environment and its strength in shaping values and habits cannot be overestimated. Formal education is a conscious effort by human society to impart the skills and modes of thought considered essential for social functioning. Techniques of instruction often reflect the attitudes of society, i.e., authoritarian groups typically sponsor dogmatic methods, while democratic systems may emphasize freedom of thought.” (http://encyclopedia2.thefreedictionary.com/Bildung)

References
Culture, context, and gender as antecedents of personal goals in social learning contexts

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In this empirical study, we investigate antecedents of personal goals in social learning contexts. Goals are operationalized by a new framework developed by Wosnitza and Volet (2009), that applies a two-facet design, distinguishing three types of achievement goals: performance, mastery, and affect; and four goal orientations: self dominant, self using others for own benefits, others benefiting from self, and others & self confounded. A sample of 4530 first year university students in a collaborative learning program based on principles of problem-based learning is used to investigate antecedents of personal goals. As conceptualisation of the contextual component, students from two international programs, liberal arts and business & economics, both attracting a culturally diverse body of students, are investigated. Cultural influences are operationalized in two, related, manners, both based on Hofstede’s framework of cultural differences (Hofstede, 1980, 1986): by using Hofstede’s cultural indices, and by applying the GLOBE culture clustering (House et al., 2004). In agreement with other empirical studies (see Kimmel & Volet, 2010, for a review), we find strong contextual and modest cultural influences on personal goals. Business students’ personal goal levels are uniformly at higher levels than those of liberal arts students and surprisingly, the differences are largest for the socially oriented goals, rather than the individually oriented goals. Female students achieve higher goal levels than male students, with one single exception: the goal constellation with strongest individual benefits.
The business of business education from a cultural perspective

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Culture drives how internal and external members of business schools think, act and feel. Others speak about the behavioural aspects a culture prescribes and refer to it as the DNA of a group of people. In short, culture is a concept that benefits from a clear demarcation and description. This study is about the culture in business schools. It is an inquiry into the nature of business education, and ‘life’ within it.

This paper analyses the business of business schools and zooms in on how manifestations of organizational culture can enhance performance. The study acknowledges the work of influential international rankers within business and executive education (e.g. the Times Higher Education in cooperation with Thomson Reuters and the Financial Times) and has not the intention to critically evaluate reliability and validity of ranking and accreditation surveys and methodologies.

Based on findings from PhD research (Beltman, 2011) on the identification of manifestations of organizational culture in relation to performance in higher education, and the work of for instance Scott (2002), Yokoyama (2006), Goodall (2009) and Becher and Trowler (2001) a classification of manifestations of organizational culture is made. This results in a framework, which encompasses manifestations of organizational culture in relation to performance within business schools.

This framework is reviewed in the context of policy documents on performance in higher education in general and business schools in particular. Furthermore, the framework will be enriched by means of semi-structured in-depth interviews with staff and students of business schools and policymakers within higher education in England and the Netherlands, observations and a document analysis. By triangulating the data a picture of how manifestations of the organizational culture contribute to performance within business education can be drawn.

So, instead of only focussing on quantitative (financial) indicators this study aims to contribute to the appreciation of organizational culture towards performance in business education: culture does matter, especially related to performance. Unravelled manifestations of the culture of business education are converted into cultural capital, driving performance thoroughly different.

The study results in a description, a realist ethnography, of manifestations of the culture within business education in England and the Netherlands, a landscape of education in which the researcher has a deep-hearted interest.

References


Feedback effects on students' team learning and effectiveness

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Abstract: Researchers have identified feedback as an important predictor of team learning and team effectiveness. In this study, we focused on the role of feedback in enabling team learning behaviour and team effectiveness of undergraduate students. We analyzed the relationships between feedback, team learning and team effectiveness in an educational environment. Also, we examined the potential mediating role of team learning in this relationship. We conducted a field study with 84 last-year bachelor students in a Management degree program of a Mexican university. The results indicated significant positive relationships between feedback, team learning behaviors and team effectiveness. Additionally, we found a mediating effect of team learning on the relation of feedback and team effectiveness. The implications of these findings for team learning and team effectiveness in educational settings are discussed.

Team-work has become an essential component in contemporary organizations because teams are expected to enable increased adaptability, productivity, and creativity, compared with what individual employees can offer (Savelsbergh, van der Heijden & Poell, 2009). A team can be defined as (a) two or more individuals who (b) socially interact (face-to-face or, increasingly, virtually); (c) possess one or more common goals; (d) are brought together to perform organizationally relevant tasks; (e) exhibit interdependencies with respect to workflow, goals, and outcomes; (f) have different roles and responsibilities; and (g) are together embedded in an encompassing organizational system, with boundaries and linkages to the broader system context and task environment (Kozlowski & Ilgen, 2006).

In educational settings the use of teams has increased in order to improve the learning and performance of students. Nowadays teamwork seems to gain advantage in the collective acquisition of knowledge and for the development of different skills in professionals.

Team learning – “a process in which a team takes action, obtains and reflects upon feedback, and makes changes to adapt or improve” (Edmondson, 2002; p. 129) – has been identified as a key factor in team effectiveness (Kozlowski & Ilgen, 2006; Mathieu, Maynard, Rapp & Gilson, 2008). In educational environments the acquisition of knowledge plays an important role, for this reason to train students in activities of team learning could have many benefits for their education and in their future role like professionals.

Researchers have sought to identify the conditions that enable team learning (e.g. psychological safety; Edmondson, 1999; beliefs about interpersonal context, Van den Bossche, Gijselaers, Segers & Kirschner, 2006), and feedback seems to be one of the most power influences on learning, however only a few recent studies have focused on this relationship (Gabelica, Van den Bossche, Segers & Gijselaers, In press; Hattie & Timperley, 2007).

With this in mind, the main objective of this study is to examine the relationship between feedback, team learning and team effectiveness in a sample of bachelor students in a Management degree program. First, we analyze the relationship between the variables. Next, we examine the potential mediator role of team learning behavior in the relationship feedback and team effectiveness.

Feedback

Feedback is a valued resource and is defined as an evaluation about the performance of the other team members or the team (London & Sessa, 2006). “Feedback guides, motivates and reinforces effective behaviors and reduce or stop ineffective behaviors”, without feedback, a group can change but cannot learn (London, 2003; London & Sessa, 2006). According with Edmondson (1999), team learning includes specific behaviors such as information sharing, asking questions, adjusting strategies and seeking feedback. Feedback has been pointed as an important facilitator of learning and performance (Hattie & Timperley, 2007; London & Sessa, 2006). Feedback is useful for several reasons. First, feedback that signals a gap between a current level of performance and some desired level of performance, or goal, can motivate higher levels of effort. Second, feedback can reduce uncertainty about how well one is performing on a task, and
Effective feedback must answer three major questions asked by a student teams: Where am I going? (What are the goals?), How am I going? (What progress is being made toward the goal?), and Where to next? (What activities need to be undertaken to make better progress?) (Hattie & Timperley, 2007). In this way, these questions could help to enhance team learning behavior.

Dominick, Reilly and McGourty (1997) found that peer feedback has a positive influence on team member behavior. More recently, Hattie & Timperley, (2007) pointed that feedback is effective when it consists of information about progress, and/or about how to proceed. Students often seek information about “how they are going,” but teachers not always have the answer. Feedback given by team members could help to answer this question. Hence, we hypothesize the following:

Hypothesis 1: Feedback given by team members has a positive influence on team learning behavior.

Team Learning and team effectiveness
Empirical research has documented the positive relationship between team learning behavior and team effectiveness in different kind of teams (Edmondson, 1999; Savelsbergh, van der Heijden & Poell, 2009). For example, Edmondson, Bohmer and Pisano (2001) found that team learning allowed successful implementation of new technologies in a sample of multi-disciplinary healthcare teams. Van den Bossche et al., (2006) confirmed the relationship between team learning and team effectiveness in bachelor students. More recently, van der Vegt et al. (2009) and Bresman (2010) have reported positive correlations between learning behavior and performance in teams of a large truck manufacturing plant and a pharmaceutical firm, respectively. Accordingly, we propose:

Hypothesis 2: Team learning behavior is positively associated with team effectiveness.

The mediating role of team Learning
Empirical research has documented the positive relationship between team learning behavior and team effectiveness in different kind of teams (Edmondson, 1999; Savelsbergh, van der Heijden & Poell, 2009). For example, Edmondson, Bohmer and Pisano (2001) found that team learning allowed successful implementation of new technologies in a sample of multi-disciplinary healthcare teams. Van den Bossche et al., (2006) confirmed the relationship between team learning and team effectiveness in bachelor students. More recently, van der Vegt et al. (2009) and Bresman (2010) have reported positive correlations between learning behavior and performance in teams of a large truck manufacturing plant and a pharmaceutical firm, respectively.

Hypothesis 3: Team learning behavior mediates the relationship between feedback given by team members and team effectiveness.

Method
Setting and procedure
The study took place in a sample of 84 last-year bachelor students in a Management degree program of a Mexican university. As a course requirement, students formed groups to work on an assignment during a 12-week period in a face-to-face setting. The groups were self-selected. The teams will confront with the business simulation game “Business Strategy Game” (BSG), developed by Thompson and Stappenbeck (1999), which simulates a business in a strategic management mark. The questionnaire was administered in the last week of the course. The following instructions were given to team members before they completed the scales: “Please indicate to what extent you agree with the following statements concerning the team in which you are working and the task with which you are dealing.”
Participants
The study involved a total of 98 participants, who were grouped into 23 teams of three members each. The participants were final year management students at a large Mexican university. The mean age was 22.5 years and 56% of the participants were women. The students participated in the study as a requirement for a particular course, which determined 40% of their final grades. All members of the project teams reported on the variables of the study.

Instrumentation
Feedback was evaluated by 5 items adapted from a scale by Steelman, Levy & Snell (2004). This scale was used in Gerken (2009) study. Items include, “My team member gave me useful feedback about my performance on the task”.

Team Learning Behaviors, were measured by means of seventeen items from two questionnaires. Items were formulated based on the questionnaire of Visschers-Pleijers, Dolmans, Wolfhagen, and Van der Vleuten (2003), measuring learning processes (exploratory questions, cumulative reasoning, and handling conflicts) in a collaborative learning context. This was completed with questions measuring perceptions of learning processes from the Edmondson (1999) questionnaire to cover the full range of identified learning behaviors.

Team Effectiveness, in this study we evaluated three dimensions of team effectiveness: satisfaction, viability, and team learning. Satisfaction was measured by 3 items adapted from the Gladstein’s satisfaction scale (1984). Items include, “I love the way my team members and I work together”. Viability was evaluated by the following item designed by Lewis (2004) based on Hackman’s work (1990): “If I had to participate in another project like this one, I would like to work with the same team again.” And team learning was measured by 1 item from Van Offenbeek (2001) (“As a team, we have learned a lot.”).

Aggregation analysis
All the variables in our research model are conceptually meaningful at the team level. Therefore, the data gathered from individual team members were aggregated at the team level. The within-group agreement was assessed using the average deviation index (AD_{M(J)}; Dunlap, Burke & Smith-Crowe, 2003). This index is based on the computation of the average deviation of each scale item within each team. In addition, we calculated the intraclass correlation coefficient ICC(1) to evaluate the consistency of responses among team members (Bliese 2000).

Results
Table 1 shows the descriptive statistics and correlations between all the variables in the study. In support of our Hypotheses 1, feedback is positively associated with team learning behavior ($\beta = .47$, $p < .01$). In line with Hypotheses 2, team learning behavior is positively associated with team effectiveness ($\beta = .51$, $p < .01$).

Table 1 Chronbach’s Alphas and Intercorrelations Among Team-Level Survey Variables

<table>
<thead>
<tr>
<th>Variable</th>
<th>Variable</th>
<th>M</th>
<th>SD</th>
<th>1</th>
<th>2</th>
<th>3</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Feedback</td>
<td>3.47</td>
<td>.71</td>
<td>.80</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2. Team learning</td>
<td>3.60</td>
<td>.49</td>
<td>.85</td>
<td>.47**</td>
<td></td>
<td></td>
</tr>
<tr>
<td>3. Team effectiveness</td>
<td>3.51</td>
<td>1.13</td>
<td>.92</td>
<td>.61**</td>
<td>.85</td>
<td></td>
</tr>
</tbody>
</table>

$n = 23$ (teams). Scale reliabilities are on the diagonal in bold.

* $p < .05$. ** $p < .01$.

To test Hypothesis 3 about the partial mediating effect of team learning on the relationship between feedback and team effectiveness, we followed the procedure established by Baron and Kenny (1986). As Table 2 shows, feedback were significant related with team learning behavior ($\beta = .47$, $p < .01$) and team
effectiveness ($\beta = .51, p < .01$). When team learning was included in the regression equation, the coefficient of feedback decrease with team effectiveness ($\beta = .29, p > .10$).

| Table 2 Regression Models of Team Effectiveness and Team Learning |
|-----------------------------|-----------------------------|
|                            | Team learning               | Team effectiveness          |
|                            | $\beta$ | $F$ | $R^2_{\text{adj.}}$ | $\beta$ | $F$ | $R^2_{\text{adj.}}$ |
| Feedback                   | .47*    | 26.78 | .21            | .51**   | 35.12 | .26            |
| Feedback                   | .29**   | 38.15 | .43            |         |       |                |
| Team learning              | .47**   |       |                |         |       |                |

$n = 23$ (teams).
* $p < .05$. ** $p < .01$.

**Conclusion and Discussion**

The purpose of this study was to examine the impact of feedback on team learning and team effectiveness. In general, the results support the proposed mediational model: teams with a more feedback report higher team learning, and team learning is positively related to team effectiveness. Our findings suggest the importance of promote feedback in classrooms in order to build team learning behaviors among team members. This study provides empirical support for the statement about that feedback plays a central role in team learning and team effectiveness (London and Sessa, 2006). Especially in educational settings it is very important that students receive team feedback and learn from their errors in order to improve their performance. To sum up, this study contribute to expand the current small body of evidence about the relation feedback and team learning at team level, however is necessary to continue developing more research about this topic.

**References**


Measuring Team Member Effectiveness: Developing a Group Work Competency Scale for Business Students

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Abstract: The ability of job candidates to function well in groups and projects is a much sought-after skill by both public and private employers. For this reason, many business schools have formally integrated ‘professional skills’ as part of the learning outcome for their graduates. One important aspect of the professional skills paradigm is the said effectiveness in group work. Often reported problems, however, concern unclear team expectations, grade reciprocity and social loafing. While there has been ample research on these aspects of team performance, few attempts have been made to look into the matter of individual student team member performance from the students’ perspective. In this paper we report on the development of a new psychometric scale for the measurement of student team member effectiveness. This paper describes the initial qualitative analysis, where students’ open-ended responses were coded as belonging to the following dimensions: (1) meetings, (2) communication, (3) work, (4) attitude and (5) team. In addition, an exploratory factor analysis is provided.

Introduction

The ability of job candidates to function well in teams, groups and projects is a much sought-after skill by public and private corporations and organizations (Alici, Beam, & Carey, 1998). This fact has been recognized by the Association to Advance Collegiate Schools of Business (AACSB, 2009) who requires that business schools show evidence of student experiential learning related to teamwork skills, group dynamics, collaboration, communication and leadership (Aggarwal & O’Brien, 2008). Consequently, most business schools have formally integrated various aspects of ‘professional skills’—sometimes referred to as ‘transferable skills, generic skills, or life-long skills’ (Emberg & Benson, 2010)—as an anticipated learning outcome for business graduates, where one crucial facet is the said effectiveness in group work. Moreover, it is often believed that students will learn the course content in a more thorough way through group projects.

While the use of group projects is a growing component of the assessment for undergraduate business students, it does not come without problems and its effectiveness as a content-related learning enhancer has been questioned (Bacon, 2005). In particular, common complaints among educators and students concern social loafing and free riding, sometimes caused by unclear team expectations, where some students make inadequate contributions to the group project while still sharing the full rewards. The learning outcome of the group project is also largely dependent upon students’ attitudes toward group projects, and their perceptions is affected by the extent to which the instructor takes the lead in discussing group dynamics and uses valid methods to assess individual performance within the group, such as peer evaluations (Chapman & van Auken, 2001).

Although there has been ample research on various aspects of overall team performance, few systematic attempts have been made to look into the matter of individual student team member performance from the students’ viewpoint; in other words, from the peers’ point of view, what constitutes an effective group member. In this paper we report on the development of a new psychometric scale for the measurement of individual student team member behaviours for team effectiveness. Included is a review of the literature that specifically focuses on scales for measuring dimensions of individual student team member effectiveness (Bacon, Stewart, & Silver, 1999; Bormann-Young & Heniquinet, 2000; Brutus & Donia, 2010; Gueldenzoph & May, 2002; Dyrud, 2001; Hansen, 2006 & Siciliano, 1999). In addition, we discuss how to implement this scale in the peer review process in university courses having group projects.

Literature Review

In Table 1 we present an abridged summary of the literature on scales that measure aspects of individual student behavior with regards to team member effectiveness. As is evident, no articles deal with the important issue on what students themselves regard as the most important individual behaviours to exhibit in order to be an effective team member in group projects. In addition, most approaches do not follow the
formal research design when developing scales to achieve both reliability and validity, as proposed by Churchill (1999).

<table>
<thead>
<tr>
<th>Author(s)</th>
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<th>Items</th>
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| Brutus & Donia 2010     | Researcher  | Literature review    | 1. Cooperation  
2. Conceptual contribution  
3. Practical contributions  
4. Work ethics          | 20    |
| Bacon, Stewart & Silver 1999 | Student | Worst/Best team experience | No dimensions                                 | 7     |
| Siciliano 1999          | Student     | Literature review    | Revised by students  
1. Do your part  
2. Share your ideas  
3. Work toward agreement  
4. Keep a positive attitude | 13    |
| Hansen 2006             | Student     | Most satisfying group projects | 1. Cooperation  
2. Leadership  
3. Specific team roles | 14    |

Analysis

The broad aim of this research is to develop and then validate a scale measuring undergraduate university students’ self-rating of their individual behaviours that contribute to them being an effective team member in a group project. More specifically, the objectives of this paper are to (1) generate a pool of items which undergraduate business students use to rate their behavior; (2) synthesize and reduce these items into key dimensions with specific behaviours and (3) validate these dimensions and behaviours. Thus, the scope of this paper is the initial exploratory analysis.

The research design for developing the individual team member performance scale follows the eight stages, as proposed by Churchill (1999). In the initial phase, the original instrument was designed by using a modified critical incident approach (Wexley & Latham, 1981). Students completed a questionnaire to answer the question which specific behaviours, based on their past experiences as group project members, do students demonstrate that make them effective or ineffective team members. Attention is given to both types of incidents because one type of incident may not be the opposite of the other type of incident (Wexley & Latham, 1981, p.41). These open-ended responses were read and coded as belonging to the dimensions (1) meetings, (2) communication, (3) work, (4) attitude and (5) team. A second sample using the same format was collected and the same procedures as in the first survey were followed. This resulted in a revised second instrument with a total of 40 items divided into the same five categories. For each statement, the participants were requested to rate the statements in relation to how important they believed those behaviours, attitudes, and values of students contributed to them being effective team members. The 40 statements were measured on a 5-point Likert scale where 1 indicated unimportant and 5 indicated very important.

In the third stage, the validation of the instrument began with an additional sample of $n = 232$ students. All participants in this study were volunteer students recruited from senior-level courses in the Bachelor of Commerce Program at MacEwan University, Canada.

An exploratory factor analysis of the internal structure of the 40 items for the sample of $n = 232$ students have been undertaken. All estimations were done with PSPP. More specifically, a principal axis factoring extraction method was employed and the factors were rotated using varimax. For this analysis, five factors were extracted and these factors accounted for roughly 47 percent of the total variance. Table 2 presents the rotated factor matrix for all 40 items. Note that any of the correlations with an absolute value
of 0.3 or less have not been printed. Examining Table 2, one can learn that the most important dimension regards aspects of ‘meetings’. Hence, items such as ‘attending meetings’, ‘be on time’, ‘be prepared’, ‘stays on task during meetings’, and so forth. Moreover, the second most important dimension appears to be various aspects of ‘work’, such as ‘does fair share of work’, ‘completes work on time’, ‘does high quality work’, ‘is reliable’, and ‘puts effort into the work’. With regards to the third dimension, the results are a bit mixed. It appears, however, as if aspects of both ‘communication’ and ‘attitude’ load on this dimension.

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**Application of the scale**

The use of the evaluation for providing feedback to students follows a three stage process: (1) preparation, (2) formative feedback, and (3) summative feedback. In the preparation stage, the instructor provides the students with the evaluation form, either as a hard copy or through a PowerPoint presentation. The
instructor needs to inform the students that this is the form their team members will use to evaluate them during the group project.

Halfway through the group project the formative stage happens. This is the 1st 360 degree feedback session. In this stage, each member of a project team completes one of the surveys on themselves and one survey on every other team member. They assign numbers to the items on the scale and also provide written responses in the areas outlined on the scale. During class time, teams give face-to-face feedback to each other, and each student collects all of the feedback forms from their team peers. Based on the in-class 360 degree feedback session, students complete a self-assessment on what they have to keep Doing, Start Doing, and Stop Doing to be an effective team member. This is included in the parallel assignment Team Process Evaluation.

At the end of the group project the summative stage happens. This is the 2nd 360 degree feedback session. During out-of-class time, the team meets and follows the same process as the 1st 360 degree feedback session. An added requirement is that the team determines the contribution mark of each team member to the group project. Team members cannot receive a mark worth more than 110% or less than 70%. This information is included in the expectations agreement that each team creates at the start of the project. Based on the 2nd 360 degree feedback session, students reflect about the feedback given them, how they have changed since the 1st 360 degree feedback, and what they have learned about themselves and being an effective team member. They also have to reflect about what they learned about group structures (expectations agreements; Gantt charts; 360 degree feedback sessions; chairing meetings; use of agenda in meetings; reduction/increase of marks; firing clauses) that they can apply to other group projects. Again, this is included in the Team Process Evaluation.

Conclusions and further research

This paper presented the initial phases of the development of a new psychometric scale to measure student team member effectiveness. The preliminary findings suggest that there is a hierarchy of student behaviours that matter to students when assessing what constitutes an effective team member. In particular, the dimensions ‘meetings’, ‘work’ and ‘communication/attitude’ are the most important ones. With this result, the next step will be to modify the list of items and possibly also modify the categorization of them. In the future we plan to investigate individual self-confidence and its relationship to team member effectiveness in group projects.

References

Project-based learning in the Arabian Gulf: challenges and rewards

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As a relatively innovative teaching/learning approach in the Arabian Gulf region, project-based learning requires progressive amendments and adaptations to the national culture of the learner. The article offers analysis of the current state of the approach in the local educational environment. Furthermore, it introduces benefits and challenges of applying the unconventional type of instruction to the Arab learners and their response to the new learning conditions and philosophy. Also, it offers ideas on the approach adaptation and implementation within the Arab students’ community.

Introduction

The Middle East and the Gulf region in particular, are both sensitive and responsive to progressive changes and modernization taking place in higher education globally. The leading universities of the region welcome and attract innovation and creative approaches to knowledge acquisition, skills development, research advancement and young talent nurturing as preparation for a smooth transition to the post-university phase. One of the recent trends in the field is to establish and maintain a strong bond between educational organizations and industry. Both parties perceive an urgent need for each other’s services as well as huge potential in their collaboration. However, experience shows that existing teaching/learning methods are not potent enough to ensure efficient implementation of modern policies and strategies in the sphere of education. Therefore, the time has come to pay due attention, and give a well-deserved chance, to alternative learning approaches which can bring the external professional world closer to learners. Project-based learning (PBL) is one of the highly recommended solutions to the problem of how to bridge the gap between students’ and teachers’ academic goals and aspirations, real-life requirements and challenges.

PBL is one of many contextualized approaches to instruction. It is learner centered with activities organized around a shared goal. It promotes active learning and introduces the learners to higher-order thinking (Savery, 2006). The paramount aim of this approach is to link theory to practice by transforming students into autonomous learners, enabling them to learn by “doing” (Cheney, 2001: 91-93; Du-Babcock, 1996: 30-32; Kalfadellis, 2005: 42). As a desirable consequence of this transformation, students develop self-awareness and metacognition which lead to self-motivation and an acute sense of responsibility for learning.

Although PBL can be applied for teaching practically any subject, it is particularly suitable for business communication courses. Developing communication skills in the traditional format of lectures and seminars through artificially-constructed communicative scenarios and assignments produce a stifling effect on the learner depriving him of the real purpose of a communicative act and the authentic reaction of his interlocutor. PBL looks at classes as “living laboratories” (Briguglio, 2007: 17) where learners have all the conditions to solve real-life communication problems, negotiate actual meanings, choose appropriate communication strategies to influence real counterparts and observe consequences of their interactive efforts.

Companies and organizations are the enthusiastic supporters of PBL as they can clearly see the limitations and inadequacies of existing teaching/learning approaches (Saatci, 2008). They require a new generation of graduates with an ability to solve complex problems, make independent decisions, be cooperative team players and people-oriented leaders, learn from their mistakes and take initiatives. Research shows that those students, who have experienced PBL, possess skills and qualities which employers are looking for. They have developed excellent adaptation mechanisms and potential for fast career growth.

This article is concerned with a number of issues relevant to PBL in the sphere of business communication and the niche it occupies in the teaching/learning paradigm in the Arabian Gulf region. This paper investigates the approach’s attributes, coherent with Arab cultural orientations, identifies the challenges Arab learners face, lists the benefits of PBL for the learners of the region, describes the difficulties for PBL instructors, and finally, suggests ways to adapt and implement PBL in the educational domain of the Arab world.
Cultural predisposition of Arab Learners to PBL

The pragmatic need for practice-based knowledge and skills for both Arab and international businesses is reinforced by cultural value orientations of learners and their way of living.

First of all, Gulf countries have emerged relatively recently and for centuries their population’s main source of income mainly depended on crafts-making, fishing and agriculture. Historical domination of manual labor in the economic domain of the society imprinted on the apprenticeship tradition in education and continues to shape preferences for those educational settings and formats that promote learning through action (Thesiger, 1995).

Furthermore, Middle Eastern culture is known for its collectivistic orientation. The tribal nature of Arab society and its extended families form a communal problem-solving and decision-making mode of dealing with predicaments and challenges (Hofstede, 2005; Adler, 2002). Thus, students brought up in a group-oriented society feel most comfortable working in a team and having the support of a group. It is also seen as safe due to its shared responsibility factor. PBL thrives on team work which ensures the support of the approach by Arab learners.

Another attraction for Arab students of PBL is the variety of activities it offers. Due to a short attention span caused by late maturity stage and lack of personal responsibility for studies in local population, students are more in need of entertainment than their peers in the West. In PBL classes students get a chance to make phone calls, write requests, create commercials, documentaries, radio programs, organize exhibitions, write articles, etc., which is usually not possible to do in the framework of traditional business communication courses. This abundance of fun and creative activities, constant change of settings, pace, ideas, people help students to stay motivated and fully-involved through the whole semester.

Students also appreciate the absence of rigid structure in PBL course design. It offers them an opportunity to customize the content and activities of the course to their own needs and expectations. Most students from the Gulf region traditionally and contemporarily have been brought up within their indigenous way of life, traditions and norms of behavior. They have quite different perception of the world and conventional boundaries. Therefore, western educational system causes stress and partial rejection of the imposed patterns, rules and requirements which often reflects negatively on students’ performance and morale. PBL, on the contrary, offers students a chance to make the course «speak to them» by bringing in real-life experiences. One of the major principles of PBL is to allow students to come up with the project of their interest and independently from an instructor, plan and implement all its stages.

PBL features new to Arab Learners

Despite quite a few points of intersection between PBL philosophy and Arab culture, the method suggests practices and goals new and non-indigenous to the Arab mentality and established way of life, but crucial for the international workplace. One of them is planning in advance. It is a well-known fact that the cultural predisposition to time is very flexible among the representatives of the Arab world (Hall, 1980). «Urgency», «deadlines» and «punctuality» are not core concepts of their mentality. When plans are made, they are usually related to the nearest future and are short-term oriented. Arranging meetings, keeping deadlines, planning the stages of their project considerably develop students’ ability to make long-term plans and effectively manage their time.

Another innovative feature of PBL is that at the beginning of the project students have to go through the stage of getting accustomed to the idea of keeping a reflective diary as part of PBL course requirements. Arab students have to make a considerable effort to reconcile themselves with this due to a heavy traditional preference of Arab culture for speaking over writing. Writing tends to be one of the least developed aspects of learners in the Middle East (Bowe, Martin, 2007). Therefore, reflective diaries provide students with an opportunity to practice their writing skill which is widely applied at any workplace.

Arab students have to make a conscious shift from memorization to analytical learning practices. In traditionally designed classes, students receive knowledge from an instructor who is perceived as an all-knowing «guru» whose reputation is unquestionable. The responsibility of the student is to listen and memorize (Valiente, 2008). In PBL classroom environment, on the other hand, students are encouraged to question the unknown, use critical thinking, compare and contrast and make their own conclusions. The emphasis moves from exams and grades towards self-motivated, life-long learning.

Immersion in introspection and self-awareness is yet another new experience for students from the Arabian Gulf region. Reflective diaries, self-evaluation, working in teams with exposure to conflicts allow
students to identify their strengths and weaknesses, personality traits, ability to function under stress and time constraints (Luft, 1970). In PBL classes the majority of learners start to analyze their behavior and consciously discover personal and cultural values, expectations and beliefs for the first time in their life. The role of this self-discovery is hard to overestimate as it leads students to reshaping their vision, rearranging priorities and goals, boosting their self-confidence and broadening their horizons.

PBL on the Arabian turf

In order to be congruent with cultural orientations of Arab learners, and at the same time, keep up with innovations in the sphere of business education, the College of Commerce and Economics, Sultan Qaboos University, Oman, supported the initiative of the instructors to implement an alternative approach to instruction within the framework of the Business Communication course (BCOM 2911).

In Fall 2011 a survey was conducted. The aim of the survey was to obtain feedback from students on the effectiveness of the approach in the Arabian Gulf with a view to implementing any necessary adaptations in respect of the local, cultural context.

The questionnaire contained five open-ended questions concentrating mostly on team work as the dominant learning setting, and the strengths and weaknesses of the course. The sample constituted 60 undergraduate (mostly third-year) students with key findings emerging as outlined below.

The respondents mentioned a large number of benefits they obtained by being involved in the course (Question 1 in Appendix). The most significant ones were experience working in teams, research skills developed, professional and interpersonal communication skills improved as well as experience gained working with the opposite gender. All the subjects marked relevance of the project work to their current and future professional and personal needs. There were responses that showed appreciation of long-term oriented knowledge as opposed to short-term, memorized knowledge.

The challenges (Question 2 in Appendix) fell under three main categories: time for regular meetings outside the classroom; interpersonal relationship issues; and external stakeholders’ participation. Due to the absence of public transportation in Oman and gender issues, the respondents found it difficult to work on projects in other settings outside the classroom. Local companies involved in the project didn’t provide enough initiative to support the respondents which resulted in the latter missing deadlines for submitting their work.

The question focusing on self-awareness caused misunderstandings among a number of respondents (Question 3 in Appendix). However, those who interpreted it correctly acknowledged that they learned a few new things about themselves such as their potential to be a good leader. Also, they realized the effectiveness of collaboration in and between teams and the power of synergy that derives from it.

Despite its obvious benefits, teamwork caused most turmoil for the team members. The respondents proposed a number of recommendations on the way how to improve team work among which are: the importance of appointing a strong team leader; more substantial control over the class activities from the instructor’s side; and equality of work load distribution between team members (Question 4 in Appendix).

Comparisons between traditional ways of teaching and the PBL approach revealed the respondents’ preference for the latter (Question 5 in Appendix). Respondents pointed to the pragmatic nature of the approach stressing its real-life workplace orientation compared to a large proportion of theoretical, classroom-oriented knowledge. The respondents suggested that the PBL approach helped them to gain independence and confidence, which is difficult to achieve through teacher-centered classes.

Instructor’s observations

Issues that were left unnoticed by the students due to their active involvement in knowledge acquisition and skills development are worth mentioning for the benefit of future practitioners of PBL in the Arabian Gulf.

The PBL approach can be very confusing and stressful for Arab students, particularly in the first couple of weeks of the course. The most dramatic challenge is the novelty of the teaching method and the new status of the instructor. Students in the Gulf region are used to perceiving an instructor as a figure representing the highest level of wisdom. In the students’ picture of the world, an instructor is expected to spread knowledge, choose the appropriate learning strategies and materials, provide answers to all questions and make decisions for the whole group. The degree of an instructor’s responsibility as well as his power is extremely high while students are destined to be the followers and executors of their superior’s will. What PBL does is to grant students authority, freedom of choice and responsibility for their own educational progress. Now it is the students who decide the topic of their project, its deliverables and
pragmatic implementation of findings. An instructor takes on the role of either a facilitator or a consultant with a minimized degree of interference into students’ plans and activities. Quite naturally, tremendous transformation of students’ learning habits, cognitive structures and role perception, evoke reactions of shock and rejection. However, with time, patience and a positive attitude, learners overcome their initial anxiety and fear of the unknown and learn to appreciate and benefit from the alternative approach.

The unfamiliar in-group dynamics can be the cause of another difficulty with PBL. In the Middle Eastern tradition a team in a classroom environment is viewed as a mini-replica of a local community with the key principles of collaboration, mutual support, hierarchy and face-saving issues being nurtured (Gudykunst, Ting-Toomey, Nishida, 1996). The most capable member of a group is expected to take responsibility for the weaker members covering for them by making presentations, speaking on their behalf, helping them with “collective” writing of reports and assignments. However, university requirements for an individual evaluation of a student's performance dictate the necessity of the student's cultural adaptation to the course design and evaluation criteria despite the fact that this adaptation can be uncomfortable for students at the initial stage of the course. PBL courses aim at group members getting used to the idea of personal responsibility for their decisions and actions and establishing healthy competitive relationships within a team.

**PBL adaptation to the culture of the Gulf region**

The findings of the survey, instructor’s observations as well as the interviews with PBL practitioners and instructors from a range of secondary and tertiary educational institutions in the region suggest that it is crucial to modify western approach to PBL and adapt it to the local social and cultural context. The optimal resolution of tension between the course and the students would be to capitalize on students’ strengths, predispositions, internalized knowledge and minimize their deficiencies.

One of the obvious solutions would be to instruct students to relate their research or project topics to their local community interests and needs reducing the focus on other cultures’ economic and social contexts.

Another idea would be to involve a larger number of local businesspeople to the project along with international companies and organizations. Students tend to show respect and listen more carefully to the elders from their own cultural background. Also, it would be desirable if the students establish first contacts with the organizations through personal connections (relatives, friends) rather than official channels. It seems to work faster and more efficiently in the Arabian Gulf than official letters from the university administration.

Liaison with government research funds and organizations could assist students with data collection and the choice of research topics with strategic significance to the country. It would also raise the prestige of research and grant status to its participants.

Evaluation criteria have also to be modified and an objective component added to course assessment. Local students are extremely concerned with the grades and can turn very argumentative discussing them with the instructor. So, it is advisable to have objective assessment along with subjective one in order to be able to justify given grades.

Instructor should avoid imposing internationally recognized egalitarian approach to team work. On the contrary, teams should develop their own communication pattern and structure. Arab culture operates on strict hierarchy and high power distance principles (Hofstede, 2005) which should have a chance to be maintained in the classroom too.

Instructor might consider the option of tape-recorded reflective diaries to replace the ones produced by hand-writing or typed on the computer. Arab learners find it hard to do actual writing due to the traditionally established passion for story-telling. They might find recording more adhere to their aptitude.

Finally, the instructor should be able to provide local students with prompts (videos, articles, event participation) to guide them and trigger new ideas and alternative perspectives as they need much longer accommodation to the idea of being independent learners.
PBL implementation in the Gulf region

The present situation with PBL in the region is such that awareness about the method, its tools, assessment criteria and benefits is not widespread. So, under these circumstances, academic staff across the universities and colleges in the region, have to be educated and trained in the effective delivery of the PBL approach.

Currently, the large number of students in the class complicates and impedes dramatically the implementation of PBL. Consequently, management should consider smaller classes (15-18 students per class) for business communication courses.

The most critical change has to be introduced to the secondary and high school curriculum. Most of the government and private schools operate on teacher-centered approach to instruction. It results in the lack of critical thinking, personal responsibility and analytical skills. School graduates experience lots of problems when they enter colleges and universities. Therefore, encouragement of students' initiative and competitiveness, field trips and project work at school will contribute greatly to the successful implementation and development of PBL in the Gulf region.

Conclusion

In conclusion, PBL in Business Communication in the Gulf region has all the chances to grow and expand with innovative and pro-active instructors, motivated and self-reliable students and the help of cooperative and progressive enterprises. Despite the challenges PBL entails, the approach offers tremendous benefits to all parties involved. Therefore, PBL deserves more attentive and elaborate care and support at all levels – universities administration and staff, Ministries of Higher Education and Research Councils. As Scollon R. and Scollon S. (2001) argue “the professional communicator is the one who has come to realize his or her lack of expertise”. Being actively involved in real-life projects, observing and participating in authentic every day corporate communication, making mistakes and learning from them is the only valid way to get a feel for what the real value as a communicator is and how much more there is to learn and master.

References


Appendix 1 Project-Based Learning

We would appreciate your reflection and feedback on PBL (project-based learning), an innovative learning approach.

1. How did you benefit from your PBL classes?

2. What difficulties did you experience in your PBL classes?

3. What new things did you learn about yourself while working in a team?

4. What are your recommendations on how to make teamwork more effective?

5. How would you compare the effectiveness of PBL versus more traditional formats (lectures/seminars)?
Digital natives and new teacher's role at higher school: case of ISLB

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Abstract: This paper is intended to stress the importance of new and specific teachers’ competencies and changing role while trying to implement e-learning and distance learning elements at conventional higher education institution. The main issue of topic was a statement that implementing of e-learning and distance studies elements could bring significant influence on quality at conventional higher education institution only under a condition that teachers are able to act and have positive attitudes towards e-learning, distance learning or blended learning mode. There are results of two repeated surveys at International Law and Business Higher School presented in this paper.

Introduction
Many colleges and universities now are offering online degree programs in addition to the traditional campus-based and blended learning programs. International School of Law and Business (ISLB, Lithuania) also is one of those higher schools that adopted a challenge of digital age and implemented distance and blended learning behind campus-based. There are four years of distance teaching experience at ISLB. During this period considerable attention was paid to the development of e-learning strategy and creating of support systems for teachers and students.

Theoretical approach of surveys

Division according to digitalization or following Prensky

The modern world under the influence of fast development of ICT sustained significant changes in economical and cultural life and e-learning in common sense is pointed to needs of modern world. An acknowledgment of phenomenal scale and rate changes of knowledge let to state, that all areas of life not escaped from technological change and education was no exception. The rapid progress of ICTs in recent years such as satellite communications, large capacity optical fiber communications and the Internet have greatly expanded the power of distance and e-learning learning (Lifelong Learning in the Global Knowledge Economy, 2003). From one side ICT penetrated almost every area of our life. From another side, ICT has penetrated tertiary education in technological sense, but not often the pedagogic fundamentals of the classroom. So the challenge is to engage faculty and students to use innovatively and effectively existing technological functionalities (E-learning in Tertiary Education, 2005). So main challenge seems to be not ability to use technology but positive attitudes towards changes related with technology in everyday life, professions, personal and professional communication.

Famous American researcher Marc Prensky (2001a, 2001b) in a two-part series entitled "Digital Immigrants, Digital Natives”, is speaking about an analogy of native speakers and immigrants to describe the generation gap separating today's students (Digital Natives) from their teachers (Digital Immigrants). According to Prensky, Digital natives are surrounded by digital media from early childhood and their brain structures, learning skills and habits may be different from those of previous generations:

Digital Natives accustomed to the twitch-speed, multitasking, random-access, graphics-first, active, connected, fun, fantasy, quick-payoff world of their video games, MTV, and Internet are bored by most of today’s education, well meaning as it may be. But worse, the many skills that new technologies have actually enhanced (e.g., parallel processing, graphics awareness, and random access) - which have profound implications for their learning - are almost totally ignored by educators (Prensky, 2001 a).

Prensky (2001 a) argues that the gap between Digital Natives and Digital Immigrants is the fundamental cause of the failure in the dialogue between students and teachers:
So what should happen? Should the Digital Native students learn the old ways, or should their Digital Immigrant educators learn the new? Unfortunately, no matter how much the Immigrants may wish it, it is highly unlikely the Digital Natives will go backwards. In the first place, it may be impossible – their brains may already be different. It also flies in the face of everything we know about cultural migration (Prensky, 2001 a).

According to Prensky, Digital Immigrants are attempting to teach the Digital Natives with methods that are no longer valid, the only choice may be for educators to change the way they teach. This idea is still relevant or even more important after more than 11 years. But on the other hand, after 11 years schools have younger teachers and older teachers have gained more knowledge and skills to apply technology. On this basis there is much debate about the division to Digital Natives and Digital Immigrants, debated whether is right to divide people based on age only (Bennett S., Maton K., Kervin L., 2008; Lorenzo, G. & Dziuban, C., 2006, etc.). And we have to investigate specific situation in a particular school and only then make decisions on specific e-learning implementation strategies.

**Changing students and teachers’ work place at higher school**

New quality of higher education in 21st century, first of all, is related to implementing ICT (virtual learning environments, supporting of conventional learning by e-learning tools, etc.) and teachers’ abilities to act in e-learning mode (new technological and pedagogical competencies of teachers) still is very important challenge for higher schools (E-learning in Tertiary Education, 2005).

In the 21st century, so many of our old assumptions and strongly held ideas have been turned around - and so many more upheavals are on the way - that it is clearly a different place in which our kids are growing up. <...> A new virtual (i.e., online) world has emerged out of the ether and become the focus of many of our kids’ attention. <...> It is inevitable, in such an environment, that change would finally come to our young peoples’ education as well, and it has. But there is a huge paradox for educators: the place where the biggest educational changes have come is not our schools; it is everywhere else but our schools. The same young people who we see bored and resistant in our schools are often hard at work learning *afterschool* (a term I use to encompass informal learning through peers, the Internet, YouTube, television, games, cell phones, and lots of other emerging opportunities, as well as through organized programs such as FIRST Robotics). <...> They follow their interests and passions, often becoming quite expert in the process (Prensky, 2010).

It means that young people prefer to learn out of classrooms and they use ICT everywhere. So we can keep them near the school or in school if we will be able to create attractive virtual school. How can we prepare virtual classrooms and virtual learning environment for them? Does the gap between digital and non-digital generations is really so deep that it could influence study process with serious consequences on quality of teaching and learning in our case? What kind of support system for teachers and students will fit most for our school? These issues are important and seriously weighted while creating e-learning strategy and implementing it at ISLB.

As was mentioned above, a statement that implementing of e-learning and distance studies elements could bring significant influence on quality only under a condition that teachers are able to act in e-learning mode and have positive attitudes towards e-learning. It was main issue for building the strategy of e-learning system at ISLB. A number of different actions have been implemented at school. Starting from teachers provision of technical and methodological tools (reorganizing of Distance learning centre with focus not only on technical, but on pedagogical methodological activity also and preparing of virtual learning environment Moodle), examining teachers’ competencies and attitudes (permanent monitoring and consulting of teachers activities, surveys), setting up teachers’ and institution’s needs and creating teachers’ and support system adapted to the needs - development of pedagogical (trainings in innovative teaching methods, understanding of digital generation, understanding of new web based teaching and learning tools, etc.) and technological (using of Moodle, open learning resources, etc.) competencies of teachers was on the first place for a few year.

One more very important issue is to hear students’ voices. The school is very flexible in accommodating students’ needs also. This is a reason why we are trying to investigate students’ attitudes and compare them with teachers’ attitudes in our surveys. According to Prensky and again quoting him:
I believe strongly that if we did listen to our students’ opinions on this, and did have such dialogues universally - and, more importantly, if we acted on what we heard - we would do things very differently. Not that our young people have all the answers - they don’t. But they do have the educational needs. We adults have educational needs, too, but a very different set (Prensky, 2011).

The question is how different are our students need and our needs? There are some answers from ISLB below.

**Investigating Teachers’ and Students’ Attitudes**

Teachers’, students’ and institution’s needs – this is the foundation on which we decided to build e-learning strategy and support system at ISLB. Our choice was to examine teachers’ and students’ attitudes and needs and only after that to create e-learning support system adapted to ISLB.

Surveys took place on April 2011 and March 2012.

*The aim of surveys was – to get information which enable to create a focused and targeted e-learning support system for teachers and students at ISLB.*

The surveys among other issues include *one aspect which is presented here* - teachers’ and students’ opinion about e-learning and attitudes towards e-learning.

Teachers and students were invited to participate in surveys by e-mail (from Moodle). A questionnaire with open, semi-open-and closed-end nominal scale and rank issues was published on-line. Questionnaire for first survey and for second one wasn’t the same. March 2012 questionnaire includes more issues, some issues was repeated in partly different formulation.

The surveys involved:

1. **49 teachers** (April 2011, the representativeness of sample with 95 percent probability was about 9) and **46 teachers** (March 2012, the representativeness of sample with 95 percent probability was about 10).

2. **190 students** (April 2011, the representativeness of sample with 95 percent probability was about 7) and **440 students** (March 2012, the representativeness of sample with 95 percent probability was about 5.7).

**Results of surveys (April 2011 and March 2012)**

2011 survey was related to implementation of Moodle (*from September 2010, before WebCT was used at ISLB*) and providing new e-learning strategy and tools for every student and every teacher (*virtual classrooms for all, not only for distance students*). Virtual learning platform was implemented throughout the study process all over the school. We were trying to analyze first year experience in 2011.

2012 survey was related to permanent monitoring actions and main aim of those surveys was to obtain information about differences in teachers’ and students’ opinions and attitudes. For us the voice of students was very important, because we presumed that it is the voice of digital generation and they have specific needs that we as teachers and administrators not fully understand.
It should be noted that in 2011 and 2012 year the most active participants were middle-aged teachers. The age and teaching experience is very similar. We can say that they are Digital Immigrants if we take into account only their age, but data about using of Internet (every day) and Moodle (2-5 per week) let us to presume that their work place is close related to virtual environment.

Students groups according to the study year are less or more similar in 2011 and 2012. But it is interesting to note that activity of participants in 2012 survey was higher. In 2011 survey students have the same questions about using of Internet and Moodle also. Answers were very similar in 2011 and 2012, but using of Moodle is stressed higher in 2012. Of course we need to analyze not only survey data, but, for example, activity reports in Moodle also.
Teachers’ and students’ opinion about e-learning

We asked to evaluate a series of statements in our surveys. There are some results in Figure 2.

Figure 2. Teachers’ and students’ opinion about e-learning

<table>
<thead>
<tr>
<th>Teachers</th>
<th>April 2011</th>
<th>March 2012</th>
</tr>
</thead>
<tbody>
<tr>
<td>If we want to improve quality of studies, students need to be provided with e-learning resources available online.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>1 - not agree</td>
<td>3</td>
<td>6%</td>
</tr>
<tr>
<td>2</td>
<td>2</td>
<td>4%</td>
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<td>3</td>
<td>10</td>
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<tr>
<td>4</td>
<td>15</td>
<td>31%</td>
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<tr>
<td>5 - agree</td>
<td>19</td>
<td>39%</td>
</tr>
<tr>
<td>1 - not agree</td>
<td>3</td>
<td>6%</td>
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<td>2</td>
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<tr>
<td>3</td>
<td>9</td>
<td>19%</td>
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<tr>
<td>4</td>
<td>10</td>
<td>21%</td>
</tr>
<tr>
<td>5 - agree</td>
<td>25</td>
<td>53%</td>
</tr>
<tr>
<td>Studies in virtual space today are very acceptable for students.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>1 - not agree</td>
<td>1</td>
<td>2%</td>
</tr>
<tr>
<td>2</td>
<td>12</td>
<td>24%</td>
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<tr>
<td>3</td>
<td>16</td>
<td>33%</td>
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<tr>
<td>4</td>
<td>8</td>
<td>16%</td>
</tr>
<tr>
<td>5 - agree</td>
<td>12</td>
<td>24%</td>
</tr>
<tr>
<td>1 - not agree</td>
<td>0</td>
<td>0%</td>
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<tr>
<td>2</td>
<td>2</td>
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</tr>
<tr>
<td>3</td>
<td>14</td>
<td>30%</td>
</tr>
<tr>
<td>4</td>
<td>10</td>
<td>21%</td>
</tr>
<tr>
<td>5 - agree</td>
<td>21</td>
<td>45%</td>
</tr>
<tr>
<td>Teachers are not prepared enough to work in virtual learning environment.</td>
<td></td>
<td></td>
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<tr>
<td>1 - not agree</td>
<td>3</td>
<td>6%</td>
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<td>2</td>
<td>10</td>
<td>20%</td>
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<tr>
<td>3</td>
<td>16</td>
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<td>4</td>
<td>15</td>
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<tr>
<td>5 - agree</td>
<td>5</td>
<td>10%</td>
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<tr>
<td>1 - not agree</td>
<td>7</td>
<td>15%</td>
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<td>2</td>
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<td>3</td>
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<td>43%</td>
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<tr>
<td>4</td>
<td>6</td>
<td>13%</td>
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<tr>
<td>5 - agree</td>
<td>6</td>
<td>11%</td>
</tr>
<tr>
<td>Students in virtual learning environment are not enough active.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>1 - not agree</td>
<td>2</td>
<td>4%</td>
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<tr>
<td>2</td>
<td>3</td>
<td>6%</td>
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<td>3</td>
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<td>12%</td>
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<td>4</td>
<td>15</td>
<td>31%</td>
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<tr>
<td>5 - agree</td>
<td>23</td>
<td>47%</td>
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<td>4</td>
<td>9</td>
<td>19%</td>
</tr>
<tr>
<td>5 - agree</td>
<td>30</td>
<td>64%</td>
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</tbody>
</table>
Teachers’ opinion about e-learning didn’t change significantly during the year 2011-2012. It is important to stress that the teachers and students have same positions on relationship between e-learning and quality. Both groups stress that e-learning is very important for higher school and close related to quality.

But different position is observed towards importance of virtual space in learning. Students stress very clear the virtual space acceptability for studies, in teachers opinion it is not so clear stressed.

Teachers are a little confused about own preparation to work in virtual learning environment and students don’t have clear opinion on this too. But the issue about students’ activity in virtual space two groups of survey participants was evaluated very differently. Teachers think that students are not enough active, students think that they are active. But after the year teachers are less categorical on students’ activity. It is interesting that after the year both groups teachers’ and students’ opinions about students activity is more negative.

Conclusions
Survey results (all results, not only presented here) allow us to make some generalization:

1. The importance of new and specific teachers’ competencies and changing role while trying to implement e-learning (blended and distance learning elements) is a challenge for conventional higher education institution. Clear and target institutional strategy for digitalization of study process should be not less important as the voice of students. The school should be very flexible in accommodating students’ needs.
2. According to surveys data teachers are not sure about own preparation to work in virtual learning environment, also students are not sure about teachers’ preparation. It means that teachers need institutional technological and methodological support for e-learning and applying of new pedagogy.

3. Data about students’ activity in virtual space still gives us more questions than answers. Two groups of survey participants (teachers and students) the statement about students’ activity in virtual classrooms evaluated very differently. Does our students are not sufficiently self-critical? Or maybe our teachers try to regulate the activity of students in linear, old fashion way? Anyhow we will need to find common digital language in our process of digitalization.

References


Friday 4th of May 2012
EDINEB General Members Meeting*

1. Announcements
2. Financial situation of EDINEB
   a. Approval of realisation of budget EDINEB Lyon 2011
   b. Preliminary realisation for EDINEB 2012
   c. Proposed future budget for EDINEB 2013
3. Future ambitions
   a. Proposed strategy
   b. Membership
   c. Role of ABET
   d. New markets
   e. Venue for 2013-2014
4. EDINEB Management Board elections (Nov 2012 til Nov 2014)
   a. Procedure
   b. Recruiting new members of Management Board
5. Round-up questions

*Only members that have registered via https://www.conference-service.com/EDINEB-2012/welcome.cgi and have received confirmation of their registration are invited for this meeting. During the meeting, some coffee/tea and snacks will be served.
World Café: The Future of Business Education

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Journals, online discussion forums, newspapers, social media; all of them are teaming with calls, pleas and arguments for educational change. Seth Godin even joined to foray recently with his manifesto ‘Stop Stealing Dreams’ (http://www.squidoo.com/stop-stealing-dreams), arguing that the current educational system is not fit for the way we learn. Following Sir Ken Robinson’s assertion in his TEDtalks in 2006 and 2010 and RSAanimation in 2010 that our educational system hasn’t changed in 100 years, more and more people contend that education needs to step out of the industrial age and join the 21st century, the digital age, the network and experience economy… As in any discussion or debate, not everyone agrees with this view. Some people (most of them working in government it seems) believe that education should go back to the basics, back to knowledge acquisition and back to ‘core’ knowledge like maths and language.

At the core of this ‘disagreement’ are differing views on the purpose of education. Is it to enable people to become to best they can be in those areas they are already talented or interested in? Or is it to prepare them for a specific profession? Or is the purpose of education to help people become self-sufficient individuals and responsible citizens?

Traditionally, the purpose of Business Education has been to prepare people for management positions in corporate life (whether for profit or not). As a result, Business Education has always kept a keen eye on the market, on developments therein and on ensuing changes in knowledge and skill sets the corporate world requires of its (new) employees. And right now the market is rapidly changing, fundamentally! That alone is all the reason Business Schools need to fundamentally change their education, in content and in pedagogy. For Business Schools it’s not about whether education is stuck in the 19th century or not, it’s about preparing students to be leaders in the current (network, digital, experience, global) age and to lead the world to the next age and economy.

What does that mean for the way we design our education? What does it mean for the way we execute it? For the role of teachers and instructors?

During the past two days of the 19th EDiNEB International Conference we’ve heard about all kinds of innovative initiatives to change, improve, evolve our Business Education. And we’ve all been inspired. In this interactive, fun and creative World Café session, we will attempt to bring all these initiatives and inspirations together and map out the next steps (and maybe take a few) in the development of Business Education. Join us in the discussion: bring all your ideas and your thinking caps and be prepared to construct the Business Education of the future!
Commentary on the Growing Failure of Modern Education: Illusions, Delusions, and the Missing Link

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Abstract: Despite all of the debate about the causes of student’s poor academic performance and their being inadequately prepared for life or work, one factor remains largely ignored. We believe the role that learners themselves play, and especially the responsibility they must assume, in the educational process is largely disregarded by the critics who embrace other explanations for poor student performance and failing educational systems. The blame seems to be placed on everyone and everything except the students themselves! However, the failure of educators and society to recognize the important role of students’ personal responsibility for their own motivation merely serves to create illusory explanations for and understanding of declining student performance in many nations of the world. Such illusory explanations delude educators and the public into thinking that the solutions for failing education are found in a host of factors that essentially do not address student motivational responsibility. This is not to suggest that these other factors are not important, for indeed they are. We do contend, however, that unless the missing link — students’ responsibility for their own motivation — is addressed effectively, only limited progress will be made in reforming education systems by focusing on these other factors.

The Growing Failure of Modern Education

Throughout the world, education systems at all levels — primary, secondary, and tertiary (or higher) — are increasingly being described as failing. Fortunately, not every nation suffers from failing education; indeed there are occasional islands of educational excellence in the world. Finland, for example, is touted for the effectiveness of its educational system (Maes, 2010). But educational systems that were once highly touted — such as the primary, secondary, and university systems in England and America — are deteriorating as well (Arum & Roska, 2011; Folbre, 2010; Gallagher, 2011; Golding, 2009; Puriefoy, 2012)

Even a casual review of literature from the scholarly community as well as publications targeted toward the general population reveals the breadth and depth of this concern with failing educational systems in many nations around the world. For instance, Sweden’s educational model that allows private operators to compete with public schools for governmental funds is accused of being incapable of distinguishing between grade inflation and real gains (Anonymous, 2011). Russia — once known for its educational excellence — has declined precipitously in the comparative ranking of nations by the Program for International Student Assessment (PISA). Alexander Kondakov, a research adviser to Russia on educational standards, asserts that in recent years Russian “schools have offered only knowledge and not education” (Lonskay, 2011). C.N.R. Rao, the head of the Scientific Advisory Council to India’s Prime Minister, asserted to the PM that India has a failing system — he says it is an examination system, not an education system. Rao asks: “When will young people stop taking exams and do something worthwhile?” (Seshagiri & Chhapia, 2011). In Kenya, the educational system is described as a burden to both teachers and students, and its failure has been blamed on financial constraints and inadequate teacher training (Kenya…, n.d.).

The education system in the United Kingdom is perceived to be failing as well (Gallagher, 2011; Golding, 2009). The British Chamber of Commerce (BCC) maintains that UK employers are recruiting workers from European Union countries because many young people who have gone through the UK education system are deficient in basic reading, writing, and math skills (Golding, 2009). According to Gerwyn Davies, of the Chartered Institute of Personnel and Development, the problem is not just with low-skilled jobs; rather it is “across the board.” Britain’s failing schools have “produced a lost generation of young people who lack essential literacy, numeracy and communication skills – and cannot be trusted to turn up to work on time” (Gallagher, 2011).
In recent years the quality of higher education experiences in the United States has drawn increasing criticism from the scholarly community as well as in the popular media. For example, two recent scholarly publications — Academically Adrift: Limited Learning on College (Arum & Roska, 2011) and Saving State U: Why We Must Fix Public Higher Education (Folbre, 2010) — have documented deterioration in American higher education. With regard to primary and secondary education, Wendy Purifoy (2012, p. A5), the founder and president of the Public Education Network, which is America’s largest community-based school reform organization, asserts that the American people “must demand and expect three things [from its public education system]: educational excellence, accountability of elected officials and school leaders for quality education, and adequate financial resources for public schools.”

Commonly Accepted Explanations for Failing Education Systems

Various critics reveal a willingness to blame incompetent teachers, stubborn and unresponsive teachers’ unions, weak-willed educational administrators, uninvolved parents, inadequate government funding, and unfavorable socioeconomic conditions, among other factors, for the failure of students to learn and perform well academically. Of course, various solutions are proposed to address these purported causes of students’ poor academic performance — and some of these solutions have been tried. Yet, the downward spiral in student academic performance continues.

Recent history is strewn with accounts of failing education systems around the globe and the reasons for it. Asserting that all member nations of the Organization for Economic Co-operation and Development (OECD) face the problem of school failure and students dropping out at the secondary level, a report entitled Overcoming School Failure: Policies That Work cites causal factors such as student’s learning difficulties and heterogeneous educational needs, their families’ socio-economic background, and inadequate resources, incoherent curriculum, and inappropriate teaching methods (Organization for Economic Co-operation and Development, 2010, p. 3). In another recent report that focused on Europe, Psacharopoulos (2007, p. 4) argued that school “failure could be traced to the school system as a whole, and/or to the individual student and his/her family.” Interestingly, however, in discussing the individual student, the role of students’ motivation — which the authors of the present paper consider to be a critical variable — was never mentioned. The failure of the education system in Tanzania has been attributed to many different factors, including “limited recognition of the importance of the schools’ academic leadership and staff, … limited cooperation among stakeholders, inadequate qualified teachers, inconvenient working environment for teachers, lack of motivation and unattractive learning environment for students, … indiscipline, lack of administrative controls, [and] inappropriate teaching facilities and materials” (Kupaza, 2011). Although lacking sufficient resources to fund India’s desired expansion of its higher education system, the country’s government cannot muster the political courage to start charging students realistic fees (Anonymous, 2005a). Moreover, public spending on universities in developing countries is highly regressive, with resources targeted toward the more elite and wealthier segments of the population. In addition, the majority of universities in developing nations are poorly managed (Anonymous, 2005a).

Midway through the first decade of the 21st century, the Educational Failure Working Group (2006) published a report on the state of education in the United Kingdom which identified several factors that contributed to the system’s failure. These factors included government policy and funding, lack of parental involvement, unmet material needs, social and cultural influences, the curriculum and structure of schooling, poor student behavior, and lack of school leadership (Educational Failure Working Group, 2006, p. 2).

The Economist, in a September 2005 critique of European universities asks: “Why have European universities declined so precipitously in recent decades? And what can be done to restore them to their former glory?” Answering its own questions The Economist states: “The answer to the first question lies in the role of the state. American universities get their funding from a variety of different sources, not just government but also philanthropists, businesses and, of course, the students themselves. European ones are largely state-funded. The constraints on state funding mean that European governments force universities to ‘process’ more and more students without giving them the necessary cash — and respond to the universities’ complaints by trying to micromanage them.” The article goes on to observe that “America is not the only competition Europe faces in the knowledge economy. Emerging countries have cottoned on to the idea of working smarter as well as harder. … Forget about catching up with America; unless Europeans reform their universities, they will soon be left in the dust by Asia as well” (Anonymous, 2005b). However,
although China’s university system harbors great ambitions it is challenged by funding that is subject to political favoritism and lobbying, rife with corruption and plagiarism, and limited by authoritarianism and the suppression of information that contradicts the party line (Anonymous, 2005a).

In a *Time* magazine article discussing the major concerns of the American voting public, Joe Klein, a political analyst and commentator, addresses the role of education in a global economy. He writes: “The more-advanced economies had to produce more-advanced products, which required a better-educated workforce. But that argument has fallen apart as countries like China and India have leapfrogged past the U.S. in some high-tech sectors and the American education system has proved entirely incapable of taking students to a higher skill level” (Klein, 2010, p. 42). “Blaming teachers for low test scores, poor graduation rates and the other ills of American schools has been popular lately, but a new survey wags a finger closer to home. An Associated Press-Stanford University Poll found that 68 percent of adults believe parents deserve heavy blame for what’s wrong with the U.S. education system — more than teachers, school administrators, the government or teachers unions” (Blankinship, 2010, p. A3).

Although the preceding discussion of commonly accepted explanations for failing schools does not exhaustively cover the nations of the world, it is sufficiently comprehensive to convey the breadth and depth of the growing challenges posed by failing education systems at all level. With regard to the growing failure of higher education, in particular, we can turn to the succinct observations of well-known cartoonist and social commentator Garry Trudeau in a comic strip published August 14, 2011. The dialogue of this particular comic strip captures two high-level college administrators discussing a recently published report on what contemporary college students are learning. First administrator: “What am I looking at?” Second administrator: “A report on what college students are learning today. It’s based on testing that measures critical thinking, complex reasoning and writing skills. Almost half the kids tested made no gains after two years of college. It turns out they spend three times as many hours socializing as studying.” First administrator: “Shocking. C’mon, Dean, that’s why they come! And as long as we give them good grades and a degree, their parents are happy too! Who cares if they can’t reason?” Second administrator: “Uh… employers.”

**Countering the Embedded Illusions and Delusions**

Although the commonly accepted explanations are important reasons for failing educational systems and effectively dealing with them will be an important part of any solution, we assert that focusing on these factors is illusory and deludes the populace into believing that by addressing these issues students’ academic performance and acquisition of needed competencies will improve dramatically. Effectively dealing with these factors will definitely help, but improvements will likely be marginal and incremental unless the educational enterprise and the general population recognizes fully and deals effectively with the heretofore missing link in fostering genuine student success. And that missing link is none other than students’ responsibility for their own motivation.

Writing in a September 2010 issue of *Newsweek*, Robert Samuelson, says that educational “reforms” have disappointed for two reasons. First, no one has yet discovered transformative changes in curriculum or pedagogy…that are (in business lingo) scalable — that is, easily transferable to other schools, where they would predictably produce achievement gains. … The larger cause of failure is almost unmentionable: shrunken student motivation. Students, after all, have to do their work. If the students aren’t motivated, even capable teachers may fail. … The unstated assumption of much school ‘reform’ is that if students aren’t motivated, it’s mainly the fault of schools and teachers” (Samuelson, 2010, p. 21). Later in his article, Samuelson states: “Motivation has weakened because more students (of all races and economic classes, let it be added) don’t like school, don’t work hard, and don’t do well” (Samuelson, 2010, p. 21).

Based upon an extensive review and synthesis of the literature, Campbell and Pritchard (1976, pp. 63-130, especially p. 65) succinctly articulated what behavioral scientists had previously discovered about the fundamental nature of human motivation — namely, it concerns the choices each of us makes regarding the direction (*i.e.*, on what actions we will exert effort), amplitude (*i.e.*, how much effort we will exert), and persistence (*i.e.*, how long we will exert effort) of behavior. Since then this fundamental conception of human motivation has been strengthened and expanded. Initiation of behavior has been added to the mix and amplitude has been relabeled as intensity of effort/behavior (Green, 1995, as reported in Pew, 2007, p. 14). In capturing initiation, direction, amplitude/intensity, and persistence of effort/behavior, “[m]otivation has been defined as the level of effort an individual is willing to expend towards the achievement of a certain goal” (Brennen, 2006, p. 4, as quoted in Pew, 2007, p. 14).
The powerful role of motivation in education is captured quite effectively in Ramona Depares' (2012) critique of the Maltese educational system. Depares says “we can chalk the current disaster to a generation of young adults who sport a rather well-developed sense of entitlement and who seem to think that not only does the world owe them a living but heavens forbid if anyone — including school teachers — dare burst their bubble.” She goes on to state: “Today we have parents siding with their kids whenever their teacher dares discipline them. We have kids whose idea of writing an essay is googling (the fact that googling has become an accepted word is quite indicative), cutting and pasting. The result is a generation of dimwit school leavers who can barely string two sentences in Maltese, let alone in English. And a generation of layabouts who expect to be given plum posts as soon as they leave university, because wow... they have a Bachelor in Uselessness chalked down to their name.” The Maltese sentiment is echoed in the tongue-in-cheek but disturbingly realistic novel entitled Degrees for Everyone, in which Bob (Sir Robert) Jones (2004), a New Zealand-based writer, critiques the modern-day university system.

We assert that little meaningful and sustainable change in student learning and outcomes is likely to occur unless proper attention is given to the critical role played by the students themselves in their motivation. When people commit crimes, others maintain that the criminals chose to do what they did, that they are responsible for their actions and must be held accountable. When people succumb to alcoholism or drug abuse, society says that no one can make them cease their self-destructive behavior; instead, the substance abusers must want to change. Countless other examples exist of society holding individuals responsible for their own behavior and the outcomes resulting therefrom. Yet, when it comes to learning, particularly learning in the context of the formal education system (be it primary, secondary, or higher education), society is willing to hold everything and everyone responsible except the learners themselves. Unless educational systems and society at large embrace the missing link — the role of students’ responsibility for their own motivation — the prospects for meaningful and sustainable educational reform are quite dim. Recognizing and addressing the role of students themselves is essential for achieving a satisfactory, if not excellent, return on society’s investment in human capital. And, of course, “[h]uman capital is the best and [most] basic investment that society can and must make: human capital — education, knowledge of history, sociology, care of the environment, and adequate employment is not [societal] debt but the only means of protecting society and its future” (Krehm, 2010, p. 5).

**Students’ Responsibility for Motivation: The Missing Link**

The role of student motivation in education is recognized by an increasing number of scholars: “[s]tudent motivation is an essential element that is necessary for quality education ... very little if any learning can occur unless students are motivated on a consistent basis” (Williams & Williams, n.d., p. 2); “[a]ll learning and development requires an investment of time and effort by the student” (Davis & Hillman Murrel, 1993, p. 93); “[m]ost people believe that success in higher education has more to do with the effort the students bring to the college experience and much less to do with the quality of the college. ... There is overwhelming agreement (88%) with the idea that it is the student’s effort that is the key factor ... [and] people feel that no amount of good teaching can compensate for a lack of motivation in a student” (Anonymous, 2000); and “[p]eople will not learn until they are ready and motivated to learn” (Conner, 1997-2004, p. 12, as quoted in Pew, 2007, p. 17).

Since motivation is fundamentally about the choices each individual makes regarding his/her own behavioral intentions and the direction, amplitude/intensity, and persistence of effort/behavior, motivation is ultimately each individual’s own personal responsibility. This is true regarding any area of human activity, including learning — whether the learning occurs informally or through a formal educational system or some combination thereof. And this responsibility grows as one matures, moving from the primary school years to the secondary school years to higher education and beyond into lifelong learning. As Robert Schuller (as quoted in Williams & Williams, n.d., p. 2) observed: “You cannot push anyone up the ladder unless he is willing to climb himself.”

Student motivation concerns whether students make educational activities a true priority and whether students choose to fully invest their time and energy in their educational experience (Crone, 2007). “Students [— especially at the university level —] need to become intentional architects of their own learning, actively setting goals, exploring, reflecting, and integrating acquired knowledge and experiences into existing worldviews” (Crone, 2007, p. 18). The challenge of personal responsibility for one’s own motivation is particularly acute in higher education. As Davis and Hillman Murrel (1993, p. 93) assert, “[s]tudent responsibility is the key to all development and learning. Research has demonstrated that college
outcomes are tied to the effort that students put into their work and the degree to which they are involved with their studies and campus life.” However, “an accompanying expectation for students to assume responsibility for their own education often has been lacking [in our educational institutions]” (Davis & Hillman Murrel, 1993, p. 93). In short, there is a strong articulated consensus concerning each student’s responsibility for being and staying motivated in order to achieve educational success — and by logical extension, to avoid educational failure — but putting those consensus beliefs into actual practice in guiding educational reform is an emerging apocalypse.

Further Illusions and Delusions: Misconceptions about Students’ Responsibility for Motivation

The majority of the relevant literature regarding motivation for educational success seems to start from a belief that every student comes into the classroom with a need they want to have satisfied by education. This already implies a certain level of motivation. But what if — as seems to happen quite frequently nowadays — students enter the classroom because it is “the thing to do”? What if attending class and ostensibly pursuing an education is merely another acquisition to be made (Crone, 2007) rather than reflecting the effort to fulfill a specific, articulated need? Or what if students come to their course work with needs that would be better satisfied somewhere else (like the need to make contact with peers)? What if students don’t make a conscious choice to enroll in a study program or course with a goal to learn something, but instead “just go with the flow” or choose the path that will demand the least effort on their part?

Many authors, including Jones (2009), state that students need to believe they can succeed if they invest effort into their learning, and that teachers should foster that belief. We assert that student’s beliefs regarding the effort-success relationship are more appropriately cultivated at the primary level and reinforced at the secondary level. In higher education, we wonder: Why do students come into the university not believing that they can succeed if they put some effort into it? Why would they start a study program or course if they do not believe they could do it, especially considering the wildly increasing costs of higher education around the globe? Why would they expect that disbelief to change during the course of their education and why would they expect someone else to change it for them? If it’s true that humans want to avoid incompetence and being unsuccessful (Jones, 2009), shouldn’t believing that one can achieve (and wanting to achieve) be a prerequisite for admission into higher education? How can a teacher work with a student and enhance his/her belief and need, if it’s not there in the first place?

The educational literature also discusses things the teacher/institution should do to develop the students’ drive to achieve. Yet, shouldn’t students already have a drive to achieve, prior to enrolling — particularly at the university level? A runner does not start a marathon expecting the sponsoring organization and the crowd to motivate the runner to finish! Others can help maintain the drive, but developing and having it is the individual’s responsibility. According to Gross Davis (1993), the belief that achievement is possible is important in developing the drive to achieve. But is it the responsibility of teachers in higher education to instill that belief? Should not that belief have been developed a long time before students end up in higher education? Do not parents (and perhaps primary school) play a crucial part in developing that belief? Teachers should help students set achievable goals, tell students what they need to do to succeed in their course of study, help strengthen students’ self-motivation, avoid creating intense competition among students, be enthusiastic about their subject, get to know their student population and make a connection with their students, challenge students, give students a sense of self-control, enthuse students, and so on, but this must be done so as to not inhibit the students’ motivation and drive to achieve, not to create it.

Jones (2009, p. 272) contends that “the design of a course is the key to whether or not students are motivated to engage in learning during the course” and that teachers should make intentional decisions regarding their course design. There is nothing wrong with the teacher making intentional decisions about his course design, or with consciously designing activities to boost motivation, but that does not mean that the teacher is responsible for motivating students to engage in learning. Unfortunately, in the actual practice of course design, many of the lists of “things-to-be-done-by-the-teacher” that are presumed to be major contributors to student motivation create the illusion that education is some kind of entertainment and/or performance act that a student can simply consume. This deludes people into thinking that education should fully cater to the students’ expectations, including their expectation that motivating them is the responsibility of the teacher (with the students’ responsibility simply being enrolling and showing up).
However, “[m]otivation is a personal responsibility [of students] while inspiration is the responsibility of leaders [teachers]” (Luongo, 2008).

Williams and Williams (n.d., pp. 1-2) maintain that “[t]he five key ingredients impacting student motivation are: student, teacher, content, method/process, and environment” (emphasis on student added). Interestingly, much of the literature on student motivation focuses on the other four ingredients, without even mentioning or considering the students’ own role. In other words, much of the literature neglects the students’ personal responsibility for their own motivation, thereby further clouding the picture with illusions and delusions. One might as well argue that it is the students’ responsibility to motivate the teacher to teach them or to keep teaching them. This perspective — so obviously perverted — is no more or less questionable than the argument that university teachers are responsible for students’ motivation to learn. Students who are not motivated to engage in learning are wasting their own time, the teachers’ time, the time of other students who are motivated to learn, university resources, and the taxpayers’ money! Higher education is not a birthright; it is an opportunity and a privilege. It should be available and accessible to everyone who is motivated to learn, not to just anyone who doesn’t have anything better to do. Students who are not motivated or committed, or who don’t have any articulated needs, but expect the university and the teachers to give them some clues and to entertain them, and who want the rewards of a good education (diploma, good job) without applying themselves, should not be admitted. They should be advised to go somewhere else (the movies, or a counselor)!

Jones (2009) reports on a potentially useful educational framework or model consisting of four phases of interest: triggered situational interest; maintained situational interest; emerging individual interest; and well-developed individual interest. The goal of education should be to foster individual interest, as that is of enduring personal value, internally activated, and topic-specific (Schraw & Lehman, 2001, in Jones 2009). We would question whether the first three phases of the model should take place in higher education. Rather a student should matriculate in higher education with an emerged individual interest and the purpose/role of the higher education experience is to help develop individual interest. If university students do not matriculate with emerged individual interest, on what do they base their choice to pursue a particular program of study? Primary and secondary education, as well as parents, should take care of phases 1 through 3. Higher education should pick up from there — and in some cases might lead to students going through the first three phases again as new interests emerge — but the primary responsibility of higher education is in helping students navigate through phase 4.

With regard to higher education for business, perhaps (most?) students at the bachelor level haven’t gone through phases 1 through 3 of the interest model — and this might be at the root of the motivation responsibility problem we are encountering in higher education. That would mean that primary and secondary educational institutions (and parents) have failed in fostering development through the first three phases. Still students at the primary and secondary levels cannot be made to do what they do not want to do or to cease doing something they truly desire to do.

Consider how many of our students might answer the question: “Why did you choose to enroll in this program of study?” Their likely answers, to name but a few, could include: “I like working with people” (management); “I like to do creative stuff” (marketing, creative business); “I want to have an international career” (international business); “I like to travel” (international business/tourism management); “I enjoy talking” (communication management); or “I’m good with numbers” (accounting and finance). These responses provide ample evidence that the students are still at the beginning of phase 1.

The student who does not complete assignments; listens to music through headphones during lectures; and doesn’t master the material or take an active, engaged leadership role in their education, might be assumed to be insufficiently motivated to engage in a discourse of higher education. The solution is not for the teacher to immediately assume the task of instilling motivation in the student, beyond conveying the expectation that ‘if you don’t do the work and master the material, you will fail the course.’ Instead, teachers might consider directing externally motivated students to counseling resources” (Pew, 2007, p. 18-19). “As teachers we may affirm, support, or encourage their motivation, but it is [the students] who are in charge of themselves, and through sharing our resources with theirs we can together create greater energy for learning. Such a learning environment is neither teacher-centered nor learner-centered but more community-centered, with the teacher serving the agreed-upon leadership role” (Wlodkowski, & Ginsberg, 1995, p. 25).

In the final analysis, “those who teach must have a clear understanding of who is responsible for motivation. If we assume that we are focusing on adult learners, not on children, the model must be that of andragogy, not pedagogy. Subsequently the responsibility for student motivation lies primarily within the
student, with support from faculty, but it is not the responsibility of faculty to be the motivator” (Pew, 2007, p. 18). Teachers, at any level, should not do things to hinder that development or motivation, but that is not the same as being responsible for the development. “Faculty as the primary source of motivation may result in the educator’s complicity in creating a student culture of childish self-indulgence in which the responsibility for student success lies with someone else” (Pew, 2007, p. 18).

We assert that educators should approach the design and execution of higher education from an andragogy angle instead of a pedagogy angle. Students in higher education are adults — at least legally they are. They’re allowed to vote, to drive cars, to get married, to buy/rent houses, among other privileges and opportunities. We should treat them as adults — with adult consequences for not behaving as an adult, such as not being admitted into or allowed to continue in a university course or program. We all know that if we want people to behave as adults, we should treat them as adults. That’s not always a guarantee that people will behave as adults, but treating them as children is definitely a guarantee that they will NOT behave as adults. Universities and teachers do need to take a crucial role students’ motivation — not by taking responsibility for it, but by holding the students responsible for it!

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Assuring Quality in Flexible Delivery

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Abstract: With ever-increasing demands for transnational educational provision higher education institutions are obliged to develop new programmes which meet the requirements of learners around the world. The challenge is to create and deliver programmes which reflect the quality of educational content and learner experience found in traditional, classroom based approaches. The proposed model combines face-to-face delivery with delivery through an advanced live video lecture facility that supports synchronous communication and learning activities augmented by material within a virtual learning environment. The flexible and distributed learning raises additional concerns regarding quality assurance and enhancement which are addressed using the UK QAA framework and University codes of practice. The modular nature of the described MSc offers greater flexibility for the learner to complete the programme in stages over a period of time.

Introduction

In the current global economic climate higher education institutions (HEIs) have to compete more aggressively to ensure adequate numbers of students register for places on taught programmes. The need for an alternative to conventional modes of programme delivery has arisen partly out of the demand of potential students and their sponsoring organizations for programmes which allow greater flexibility in time, place and pricing. With respect to postgraduate courses, professionals in full-time employment are reluctant to take a year or more out of work to study for a master’s degree. Without guarantee of a return to work after a full-time programme they are turning to part-time programmes offering the subjects they require. These working professionals also expect the same quality of experience as that of students on full-time courses. HEIs seeking to meet the requirements of these students by adopting flexible approaches to delivery cannot sacrifice academic quality, maintain staff-student ratio and reputation over these expectations in order to encourage increased participation.

This paper describes how staff at a UK postgraduate university are proposing to respond to the challenge of providing a flexible variant of a hitherto conventionally taught MSc. The paper relates their approach to assuring academic quality while meeting the requirements of full-time professionals and their sponsor organisation. An outline of the rationale for the flexible variant is given before a description of the challenges of programme design and delivery. This is followed by discussion of a proposed solution to the problem of providing the variant together with aspects of quality assurance.

Rationale

The context is that of a postgraduate university in the UK providing defence education to a client organisation in India. (The university is also contracted to the UK Ministry of Defence to provide defence education.) The client has identified an existing taught programme which it wants delivered in India. The typical costs for sending students to the UK are prohibitively expensive to scale up the education.

Equally, bringing teaching staff to India for the same full time delivery is expensive, disruptive and severely constrained by capacity. Travel and subsistence costs alone account for 21% - 39% of the tuition fee. Moreover, the university is unable to meet the demand in a way that is economically and logistically viable. The situation is worsened by the turbulence caused as a result of the effects of UK defence cuts which leaves the university with a product which the customer values but cannot afford, and the university unable afford to send its staff to India to teach. A solution to the problem is to explore other means of delivering the course to the client’s location without degradation in academic quality or the student experience.

Current Delivery Approach

An MSc consists of 12 modules of 10 credits each and a research project worth 80 credits (See Figure 1). All together 200 credits (2000 hours over 48 weeks) make up an MSc. There are three exit points - PGCert:
six modules (60 credits) plus written exams; PGDip 12 modules (120, 1200 hours) credits plus written exams and MSc (200 credits) plus written exams and a project report.

Typically each module is delivered in five days consisting of lectures, tutorials, syndicated discussions, and practicals totalling 35 contact hours. For each module there are an additional 65 hours of directed study, an assignment and examinations. In total, there are 100 notional hours of study per module.

M-level descriptors (See Appendix A) emphasise critical assessment throughout the taught postgraduate programmes. This is achieved by placing more emphasis on individual learning, group discussions and peer group presentations, and a research project utilising the tools and skills learnt during the taught phase. A key part of the face-to-face delivery is timely interventions to student-centric learning; this is based on work carried out by the learner during tutorials, group discussions and assignments.

Figure 1: Delivery of Postgraduate programme. Each card represents a module. Top row shows the classroom delivery of the programme. Bottom row shows the proposed blended delivery using a combination of Global Classroom and Distance Learning delivery of the module.

**Proposed solution**

Since all the postgraduate programmes are delivered in modular format, it is possible to sequence the programme in such a way that it lends itself better to a blended approach (See Figure 1, bottom row). In order to connect with the cohort and to assure that University standards are maintained, we propose to deliver the first and the last module of the PGCert programme are delivered face-to-face in India. A similar format is used for PGDip. This will enable staff to orient the students and conduct examinations consistent with institutional standards. Accordingly, we discuss the delivery of the block of six module comprising the PGCert component. The blended programme consists of two modules delivered in-country and the remaining four modules delivered either through Global Classroom or as distance learning via Virtual Learning Environment (VLE) (See Figure 1, bottom row).

Assuming two members of teaching staff for delivery of a module of 10 days maximum duration, cost/benefits analysis is carried out for a flexible variant to the full-time residential MSc in Systems Engineering for Defence Capability (SEDC). The results indicate that a solution to the challenge is possible for a minimum of 15 students per cohort. The solution takes into account the problems posed and is offered as a cost-effective means by which the university can fulfil the client’s educational requirements while maintaining its quality standards. It is important to emphasise that the proposed solution places a significant amount of responsibility on the learner and this expectation needs to be managed by the institution as well as the sponsoring organisation.

The overall cost for an overseas student to undertake a conventional PGCert course (six modules and assessment) in UK is approximately 30% more than if they were to study for the same qualification in India using the model proposed in this paper. This reduction in cost is attractive to the sponsoring organisation and the student numbers can be increased up to a maximum of 30 without compromising any reduction in quality of educational delivery and learning experience.

Up to three modules are offered as residential face-to-face components. Others will be taught, where appropriate, using the Global Classroom and some designed for self-study supported through the VLE. The thesis component may be undertaken as residential in UK at additional cost. This staged
approach with multiple exit points allows both the sponsoring organisations and the learners to choose their preferred pathways.

**Challenges**
Some of the challenges faced in implementing the proposed format include learner dynamics, timetabling of live lectures across time zones, *transactional distance* (Gorsky & Caspi, 2005; Moore, 2007), and adherence to the standard of learning expected at masters level.

**Learner dynamics**
Technical support needs to be available for reliable online tutorials. Software licensing and support for software-based tutorials has to be managed. Questions arise about how to replicate a one-to-one tutorial experience online. These reflect problems around learner dynamics and ensuring a satisfactory experience for cohorts of students at a distance. They must be engaged and their motivation maintained to ensure successful completion. This could be partly addressed using the on-campus ‘Global Classroom’ facility which is a new videoconferencing capability for local and distance teaching, training and collaboration installed at the Shrivenham campus of Cranfield University. The facility is designed as a flexible space able to accommodate up to 22 local participants in sessions delivered to both local and remote audiences simultaneously. Its primary purpose is to allow live interactive lectures to be delivered overseas or recorded for subsequent playback.

Figure 2: View from rear of Global Classroom showing 1) presentation screen 2) projector units 3) high definition camera 4) remote video feed 5) visualiser 6) optional connection for laptop computer 7) classroom controls. Not shown are the rear confidence monitor and rear-mounted high definition video camera. A high sensitivity microphone array is mounted on the ceiling.

The room is equipped with high-definition cameras and projectors, high sensitivity microphones and speakers which are managed through a touch-screen user interface mounted on the lecturer’s position.
(see Figure 2). It can connect to any other networked facility around the world with the appropriate technical configuration.

The Global Classroom permits a good degree of interaction during online sessions but despite this, it might not be enough until we have identified the most effective ways in which to use it. Recorded lectures and video content also raise issues of copyright. These issues are underpinned by the theme of maintaining standards and assuring quality.

Timing of Lectures
Between UK and India, lectures can be scheduled for best part of five hours without causing too much inconvenience and creeping into unsocial hours. This reduction of commonly available work day hours require careful scheduling of the programme to make the best use. It is proposed to delegate bulk of ‘individual reflective’ exercises and some of the group interactions to the later part of the day, focussing on traditional lectures during the earlier part. This may not work right across all disciplines. When dealing with technical subjects, the lectures are traditionally interlaced with practical sessions or group activities every 30 minutes. There is scope however to design meaningful short group exercises to the later part, and review the content the following morning. Short formative assessment at the end of the day will encourage the learners to review the material. On the positive side, certain time zones offer unique advantages in that the time for a response can be quicker than the norm in a single time zone. For example, looking at Figure 3 it can be seen that a query raised at the end of the day (e.g., at 17:30) in India will be received at 13:00 that can be addressed during normal working hours in UK.

Figure 3: Available lecture hours. The cells shown in green (lighter) are acceptable timetabled lectures while the cells shown in red (darker) are potentially unsuitable.

<table>
<thead>
<tr>
<th>India (UK winter)</th>
<th>13:30</th>
<th>14:30</th>
<th>15:30</th>
<th>16:30</th>
<th>17:30</th>
<th>18:30</th>
<th>19:30</th>
<th>20:30</th>
</tr>
</thead>
<tbody>
<tr>
<td>India (UK summer)</td>
<td>12:30</td>
<td>13:30</td>
<td>14:30</td>
<td>15:30</td>
<td>16:30</td>
<td>17:30</td>
<td>18:30</td>
<td>19:30</td>
</tr>
<tr>
<td>UK</td>
<td>08:00</td>
<td>09:00</td>
<td>10:00</td>
<td>11:00</td>
<td>12:00</td>
<td>13:00</td>
<td>14:00</td>
<td>15:00</td>
</tr>
</tbody>
</table>

More technical subjects requiring practical hands-on laboratory sessions pose a serious challenge. Where appropriate these are delivered either in-country or in UK which will incur additional costs. Software licenses could potentially be an issue. Some of the licenses an institution subscribes to do not permit their use beyond national borders. These licensing issues for software and datasets need to be identified and comparable alternatives found which will work within the sponsoring organisations context.

Transactional distance
Learning at a distance is characterised by the concept of transactional distance introduced by Moore (2007) in which he argues that the issue is not spatial and temporal distance, but the quality of dialogue or interaction between the learner and the teacher, the structure or responsiveness of the learning content and the self-directedness or autonomy of the learner. The dialogue between the learner and teacher is encouraged in the proposed solution through the use of Global Classroom that facilitates synchronous communication. Social presence need also be accommodated to encourage dialogue among learners. This requires careful structuring of the content and introducing collaborative instant messaging boxes similar to chat pods (see Griffin, 2012).

M-level descriptors
Taught post-graduate courses at Cranfield University adopt the Masters (M) level descriptors based on the Quality Assurance Agency’s (QAA, 2008) Framework for Higher Education Qualifications. A key component of M-level descriptors is the emphasis on critical thinking skills applied to, for example, critically evaluating developments in current research within the chosen field or discipline. An extract of the QAA M-level descriptors is included in Appendix A.
Quality Assurance

Quality is often used to refer to how well products, programmes, services and other outputs measure up against predefined standards in industry, health, and other fields. It is usually accepted as a measure of fitness for purpose against pre-defined indicators. In the UK education sector it is a subject of much debate with arguments for its place in an education system often countered by accusations that frameworks for measuring quality are no more than managerial tools or are too prescriptive (Hoecht, 2006; Doherty, 2008; Teelken & Lomas 2009). However, for the purpose of this paper we accept the need for ways in which to measure quality of education and use the following working definition provided by Fry et al. (2009):

Quality assurance (QA) refers to the policies, processes and actions through which quality is maintained and developed. Accountability and enhancement are important motives for quality assurance (Fry et al., 2009, p.187).

Here there is an emphasis not only on reviewing and evaluating what has been done but also on improvement. Importantly, the authors also refer to the concept of accountability which imposes a greater degree of legal responsibility upon HEIs. Since the proposed solution involves the delivery of the programme overseas we are, like other HEIs developing overseas teaching partnerships, obliged to follow additional quality measures which are taking on an increasingly legal dimension. To this end we give a brief description of the institutional context in which the proposed solution sits.

Collaborative Provision

The QAA Academic Infrastructure is a set of quality assurance guidance documents for UK higher education institutions (HEIs) which aims to provide a point of reference for assuring the quality of learning experiences and standards of awards and programmes. Section 2 (QAA, 2010) defines collaborative provision as ‘educational provision leading to an award, or to specific credit toward an award, of an awarding institution delivered and/or supported and/or assessed through an arrangement with a partner organisation’ (p.13). During 2012-13 the Academic Infrastructure is being replaced with the UK Quality Code for Higher Education Part B, Chapter 10 of which sets out indicators for HEIs to use as guidelines for reflective evaluation and improvement of their processes for the management of collaborative arrangements (QAA, 2011). As with QAA 2010, the chapter extends earlier understanding of collaborative provision to recognise the ‘broader and more diverse portfolios’ of activity in UK higher education. These have emerged in HEI activities in the wake of UK Government policies such as widening participation in higher education, lifelong learning and the promotion of partnerships not just in education but also business.

In parallel with the broadening of collaboration activities at other universities, Cranfield has been identifying opportunities for collaboration both within the UK and internationally for many years. However, like other HEIs taking a similar route to develop their portfolios, the road has not always been a smooth one and a 2009 audit of UK HEI relationships with India revealed several points for the University to consider (see QAA, 2009, documentation on outcomes from Collaborative provision audit available from www.qaa.ac.uk).

As a result of the audit, Cranfield University made clear its commitment to adjust mechanisms and processes to be ‘truly fit for purpose for the full range of its collaborative enterprises’. Since then it has defined four types of collaborative partnership in response to increased interest from overseas and lessons learned from its partnership with ICRI. Some of these lessons highlight the need for robust frameworks.

In addition to changes already underway, the Cranfield University Senate approved a code of practice which outlines the policies and principles governing all collaborative partnerships leading to formal awards of the University. Although adherence to the code involves additional activity during the process of designing and presenting a new course for approval, it provides a much firmer basis upon which to establish collaborative partnerships. The first three types of partnership identified by the senate are programme validation, joint provision, and partial award recognition. The proposed solution to the need for a flexible variant MSc comes under the fourth type, partner support. However, there is a distinct possibility for the partner support to evolve into the other modes of collaboration and therefore we provide a brief description of each.

Programme validation represents the highest level of academic provision where the partner has entire responsibility for the design and control of the course structure and delivery. Academic awards are validated by the University which remains responsible for ensuring the academic quality of the course.
Currently programme validation is limited to a number of partnerships with UK MoD organisations for a range of postgraduate courses, mostly at masters level, in nuclear technology, military engineering, geographic information and flight dynamics. The Cranfield University partnership with ICRI is an example of joint provision where teaching provision and assessment is shared with the partner organisation. Depending on the type of arrangement, this may not be the case with programme management which will remain in the University’s control. Another example of joint provision is the Doctorate of Medicine.

Cranfield has some partnerships where it shares teaching provision and assessment of parts of a programme with other universities and partner organisations; partial award recognition. In most cases this means that the academic partner is responsible for delivering elements of a programme using their own facilities and resources although the University will award academic credits for student achievement. The code includes processes for recognising the contribution of individuals who do not possess formal academic status. Current partnerships falling into the category of partial award recognition include working as part of an international consortium of universities to deliver and assess a joint European master’s degree in space science and technology with seven other HEIs in Europe, Japan and the USA.

The kind of collaborative provision described in this paper is that of partner support. In these kinds of arrangements Cranfield University staff are responsible for the majority of teaching provision and assessment which are delivered off campus using the facilities and resources of the partner organisation. Cranfield has considerable experience in this form of collaborative provision and currently has arrangements for delivery of several MSc programmes through partner support contracts around the world. The key distinction between these and the solution we are proposing is the reliance on technology for maintaining quality of learning and teaching at a distance.

Flexible and Distributed Learning (FDL)

The QAA’s definition (2010, p14) definition for FDL is similar to that of collaborative provision except rather than being delivered, supported or assessed through a partner organisation, educational provision is achieved through ‘means which generally do not require the student to attend particular classes or events at particular times and particular locations’. The following summary is described within the context of the proposed flexible variant which will be delivered via the Global Classroom and distance learning.

Distance Learning will be supported in the Moodle Virtual Learning Environment (VLE) which will be used to host resources, materials and structured learning activities. In addition to working within the VLE’s conferencing forums and chat facilities, lecturers and students will be able to communicate using the University’s online video-conferencing service (WebEx) and email.

Technology enhanced learning (TEL), also referred to as e-learning, can be used in various ways to provide blended, flexible and distance learning opportunities. The range of technologies available for use in these modes is ever-changing but their effective use in programmes of learning is reliant upon good teaching practice and institutional provision and management of the necessary technology infrastructure. Many of the academic aspects of quality within these modes do not require separate guidance from that provided in the QAA’s Academic Infrastructure. However, the QAA identifies ‘precepts and explanations that are the concerns of e-learning alone’ (QAA, 2010) which it incorporates into Section Two of the Code under the headings of delivery, support, and assessment.

The delivery format influences quality assurance on several fronts. The geographical and temporal separation of learner and tutor, absence of a teacher who can keep a watchful eye on what is going on and instantly intervene at the appropriate times during tutorial sessions, and lack of social presence (Short et al., 1976) are some of the factors that can significantly affect learning experience, and in turn affect the quality of educational delivery. Many of the precepts for quality assurance have been developed for the traditional classroom delivery. These have been extended for the technology-based delivery format.

Following the practical view that ‘Quality assurance is the process for checking that the standards and quality of educational provision meet agreed expectations’ (Leyland, 2012), quality of blended delivery can be maintained with careful pedagogical constructs that demand significant amount of discipline from the learner as well as the teacher in equal measure. The quality pinchpoints can be addressed through adherence to the QAA’s Framework.

QAA have identified precepts specific to FDL. These are listed under three categories; 1) Delivery, 2) Learner Support and 3) Assessment. These are discussed below with comments on how they are being addressed in the proposed programme. The alphanumeric codes following the sub-headings indicate the specific QAA (2011) Code of Practice elements and are included for ease of reference.
Delivery (B1-B2)
The guidelines emphasise the importance of making expectations clear from the outset. To this end, the documentation setting out learners’ responsibilities, Intended Learning Outcomes (ILOs), Schedule and study material are published on the VLE. The students are given specific orientation during induction that takes place within the face-to-face component. In the proposed model, all the taught material is delivered by the University’s teaching staff and it is therefore critical that they are fully inducted into using the Global Classroom, and any concerns addressed before the programme begins. In the rare situations, where staff are uncomfortable facing a video camera, their lessons will be recorded and played back. The video recording of the complete lesson is subject approval of all participants which will be obtained at the beginning of the course. Teaching staff will be able to participate in the discussions by turning off video transmission.

The reliability of the network connections is fairly robust between UK and India. Since students may be participating from home and not necessarily from major cities in India, the importance of having a reliable network connection and uninterrupted power supply as course pre-requisites is reinforced. The sponsoring organisation has also been made aware of this requirement. In the event, that delivery to some students is interrupted, a complete recording is made available for later viewing although they will also be able to play back any other video as revision.

Where possible, the lesson will also be repeated. The lessons delivered in the Global Classroom are reviewed at the end of the module through mandatory feedback at which time module content is periodically reviewed for its currency and delivery format used. The study materials are subjected to the same rigorous scrutiny as per the classroom delivery thus meeting the specified institutional expectations of study materials. The events for Global Classroom are published in advance and ample provision is made for testing the technology works. FDL arrangements are reviewed along with ILOs and form part of the course documentation.

Learner Support (B3-B6)
To manage student expectations, generic guidelines for using the study material, individual responsibilities, and the expected degree of participation in online discussion forums are published on the VLE. Additionally, students will be encouraged to remain actively engagement. Where appropriate, forum discussions are tracked using features such as Participation Map in Moodle 2.0. To support the development of good academic practice, students are also alerted to the issues of plagiarism in relation to group work and individual assignments.

Tutor support is provided during the course work week using a web-based conference system (WebEx). Students are inducted into the VLE and GC during face-to-face session in country in addition to receiving online support. Local support is limited to minimal administration and no subject specific support is provided. Learner responsibilities are published in the Course Handbook, highlighting those specific to FDL.

Assessment (B7-B8)
Judging academic achievement for modules delivered either through FDL remains a challenge. The risk is minimized by mandating the use of written examinations for these modules. Assessment methods, together with relative weighting of modules are described in the Course Handbook published on the VLE. Each module offers self-assessment and formative assessment during delivery and students are encouraged to participate in these activities which are monitored by the module leader.

A simple dashboard application is provided to monitor students and keep them informed along with the module leader, who in turn will be able to offer appropriate feedback. All assignments are submitted through plagiarism detection software such as TurnIt-In. These tools do not confirm the authenticity of the submitted work and authentication of identity for submitted assignments remains a challenge in FDL environments. Typically coursework element is given weighting of no more than 40% and the written examination carries a weighting of 60%.

Summary
In this paper we have presented a model for delivery of an existing full-time MSc programme in a flexible format suitable for distance learners. The programme is proposed for delivery in India within the terms of a defined collaborative partnership. This partnership involves the accrediting UK university and the Indian
university providing facilities. The distance learning elements of the programme will be delivered full-time. Flexibility within the programme is offered in terms of cost savings for the customer and convenient scheduling that minimises time away from the workplace. Further, multiple exit points within the programme offer additional flexibility to leave the programme at either of two exit points and rejoin at a later date in order to complete the full MSc programme as a part-time student.

The novelty of the proposed model is in exploiting the Global Classroom facility which enables synchronous multi-modal communication and teaching, distance learning, and face-to-face learning. This particular blend minimises the risks of higher attrition rates, student alienation, and reduces the likelihood of impersonation in examined coursework.

Quality assurance issues associated with flexible and distributed learning are addressed through adherence to the UK Quality Assurance Agency framework and University Senate codes of practice for collaborative provision. The proposed programme is currently subject to Senate approval prior to anticipated delivery in August 2012. We hope to present the experiences gained from this experience in a future paper.

References

Appendix A. M-Level Descriptor for all Taught Masters Courses
Taught courses at Masters (M) level at Cranfield University provide students with a broadly based education in subjects directly related to the University’s mainstream research activities. They are designed to build on a student’s first-degree or equivalent prior knowledge and/or experience, to encourage individual personal development, and to enhance students’ skills and expertise for employment in the private and public sectors, nationally and internationally.

A Masters level qualification of Cranfield University shall be awarded to students who, through successful completion of an approved taught programme of student, have demonstrated:

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• Acquisition of an appropriate body of knowledge and associated higher level critical skills including:
  o an ability to demonstrate a systematic application and a critical awareness of current research at the forefront of their chosen discipline, together with the capacity to evaluate its relevance to industrial and commercial practice;
  o conceptual thinking that enables the student to evaluate critically current research and/or methodologies, develop critiques of them and, where appropriate, adapt them in the context of both advanced scholarship and industrial/business/commercial/professional relevant;
  o an ability to acquire and use information effectively in any appropriate medium, including the increasing range of networked information resources;
  o originality in the application of knowledge, including data and information collected by the student, in relation to an extended individual or group project or piece of research or a series of projects focusing on industrial/business/commercial/professional problems;
  o an independent learning ability and interest in advancing their knowledge and understanding and developing new skills to a high level;

• Problem solving and communication skills including:
  o self-direction and originality in tackling and solving problems, working effectively both individually and in teams at a professional level, making informed judgements in the absence of complete data and communicating conclusions clearly, both orally and in writing, to specialist and non-specialist audiences;

• Other qualities and transferable skills including:
  o the qualities and transferable skills necessary for employment requiring exercise of initiative and personal responsibility in a real world, industrial/business/commercial/professional context.

Note: The Postgraduate Diploma and Postgraduate Certificate are M-Level qualifications that may be awarded to students who have successfully completed an approved taught programme of study and demonstrated all the above characteristics save those associated with completion of an extended individual project or piece of research.

[This provision is available only in the following cases: where a student has initially registered for an approved PgDip or PgCert course, where a student, having initially registered for a Masters course which is associated with an approved PgDip or PgCert course, has satisfied all the requirements to qualify for the award of the PgDip or PgCert as if he/she had been registered for that associated course.]

Approved by the Senate: 2 July 2001, amended 7 July 2003 and 1 October 2005
Basic Economics Education in a Chaotic World

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Abstract: Triggered by the necessity of life long learning the topic of basic economics education for adults has been moved into the focus of academic research. Applying a general approach of Amartya Sen for basic education we define the purpose and aims of economic and business literacy as the skills that individuals and groups need to achieve self-propelling aims to reduce economic uncertainties within their social contexts, which are the cause of poverty resp. incapacitation. Basic economics education is empowerment in a social context. Persons without basic skills are excluded from life long learning. As the degree of economic uncertainty is the higher the lower the income of a person is, the increase in old-age–poverty in OECD-Countries constitutes a serious challenge for third age basic economics education.

Introduction

Third agers are more or less integrated into the economy in various ways. The economy is a part of their living environment. As consumers they decide about purchasing goods and about saving, and in the early old age (<70) more and more of them take part in the working world. However, to act as an economic agent is more than to attend to one’s own affairs within the scope of freedom of contract. The economy is not only a private but also a public affair, viz. in a democratic and open society its shaping is a mission of polity. In an inclusive society the elderly take part in public life pari passu. There is no fundamental difference between the old and the young ones concerning economics education. For both of them economics education is needed to order one’s personal affairs and to act as a politically responsible citizen.

However, special problems arise when people are getting old. The focus of this paper is on the intensifying challenge of old-age-poverty. There is a growing literature on old-age-poverty in the OECD (OECD 2011), but we are rather ignorant of the level of education and economic competencies of the old aged.

We want to tackle the question whether a lack of economics and business education of third agers might alleviate the problem of old-age-poverty and how an adequate basic economics education might be shaped.

The analysis is mainly conceptual and aims to sketch a new and probably political relevant field of research. First we develop an approach to basic economics education stressing the empowering role of education (Sen 1999). In the next step we examine the phenomenon of old-age-poverty und its links with (lack of) skills and education. In the discussion und conclusions section we shortly discuss possibly successful ways of basic economics education and outline further need for research.

Basic Economics Education

Basic economics education for adults has not been discussed in research over years. Literacy concepts were generally based on the OECD “Programme for International Student Assessment “(PISA). PISA aims to evaluate education systems worldwide by testing the skills and knowledge of 15-year-old students (OECD 2010). However, triggered by the necessity of life long learning the topic of basic economics education for adults has been moved into the focus of academic research (Schlösser & Schuhen 2011,2012). The first results of the OECD “Programme for the International Assessment of Adult Competencies (PIAAC)” will be released in 2013 (OECD 2011).

Basic Education and Participation

A wide definition of basic education (foundation skills) includes all competencies required for orientation in society. In this effect basic education comprises various fields, for instance literacy, numeracy, problem solving, handling of technical appliances, acquaintance with money, health-conscious conduct, in particular with respect to sanitation and nutrition.

In conjunction with basic education participation means that humans – individuals, population groups, organizations, unions, parties – are free and capable to take a stake in all decision making with an impact...
on their lives. Participation is conducive to exhibit and accomplish people’s interests (empowerment). Furthermore it implies that people contribute their experiences and their ethic values to common enterprises thus appropriating these enterprises and taking responsibility for their outcome (ownership).

Basic education implies the competencies which are adequate for the target audience to participate in their various living environments (Basic Skills Agency 1993): coming to terms with society, achieve own goals, and develop one’s own knowledge and individual options (OECD 2011a).

**Basic Economics Education: Empowering in Social Context**

Basic economics and business education involves the skills that individuals and groups need to achieve self-propelling aims to reduce economic uncertainties within their social context, which are the causes of poverty and prohibition resp. incapacitation. The role model of economic literacy is the educated stakeholder who takes economic affairs in her own hands and participates in the formation of her own environment (Sen 1999).

Basic economics education is empowerment in social context. A social contextual approach (Auerbach 1989) brings into focus the strong points of the target audience and takes their social reality seriously. Basic economics education is therefore not considered as a “one way road”, where “experts” feed knowledge into individuals and groups suffering from deficits. Consequential is a curriculum construction which is informed by the concerns and cultural specifics of the target group. Centering strengths and not deficits is an important point in the case of the elderly with their treasure trove of life experience.

The road to success leads across the development of own resources and potentials. An essential resource is social capital (Bourdieu 1998) as a condition sine qua non for mutual beneficial collaboration with others. Therefore it depends on the specific social, cultural, economic, and political context whether basic competencies are adequate (Scottish Executive 2001). As social conditions change so do the requirements for basic economics education.

Economics education exceeds the pure accumulation of economic knowledge. It is rather a matter of application of skills in dynamic social contexts, involving recognition of repeating patterns, economic structures, and interrelationships.

Legitimate claims cannot be recognized and accomplished without basic economics education. An important facet of economics education is the competence to call upon expert advice. Low income groups often do not manage to employ professional services.

Functional economic illiteracy constitutes a barrier for participation. Problem situations are not identified and needs and claims cannot be brought forward. When “voice” fails and “exit” (Hirschman 1970) is not an option in low income groups the opportunities to influence polity and the chance for equitable attention decline. “Literacy in social context” (Scottish Executive) is to act empowering and inclusionary. The target audience should not be treated as passive recipients but as active agents with the ability to change their lives.

**Old-age Poverty**

In many countries pensions for low income groups are regarded as too low (OECD 2011b). On the other hand the imperative to reorganize the public finances particularly after the recent economic and financial crises has aggravated the trade off between adequacy and financial sustainability of pensions. For many individuals it becomes more and more difficult to reflect the new financial realities and to change their work, retirement, and saving decisions in the face of sudden changes of the pension systems.

Demographic change poses another challenge, particularly in pay-as-you-go pension schemes. The link between individual contributions and benefits “is already being powerful tested by demographic realities, which require public schemes to pay low implicit rates of return on contributions to maintain financial sustainability” (OECD 20011b: 10). Fewer and fewer contributors have to finance the benefits of a growing portion of pensioners (Börsch-Supan & Essig 2005) Mainly two possible solutions to fill the resulting pension gap are up for discussion (OECD 2011b): Longer working lives and private funded pension provision.

A policy of longer working lives viz. higher pension ages would have the advantage of providing a clear signal of the need to work longer. We argue that with respect to intergenerational justice given a higher life expectancy a higher pension age would not substantially reduce the present value of the pension. After all the result of the increase in life expectancy is an increase in the length of time people spend in retirement. However, to work longer is difficult for those older workers who face barriers in finding and retaining jobs.
because of age discrimination, lack of training opportunities, and exhausting working conditions. So long-term unemployment is a greater problem for older than for younger workers.

In our view the necessity to work longer makes further vocational training an important provision for early old age security. Renewing the human capital of older workers requires continued investment. Globalization, technological change, and change of work organization and life styles demand for changing skills. These transitions will require greater resources – both private and public – for training, career counseling and help for older people in setting up their own business i.e. entrepreneurship education.

Another way to achieve adequacy and sustainability of pensions is to encourage people to save for their own retirement. Four critical factors are relevant for this solution (Börsch-Supan & Essig): the anticipated life expectancy, the level of personal assets, the expected age of retirement, and the anticipated interest rate. As to the interest rate a cause of concern is the “asset meltdown” hypothesis according to which demographic change will result in a decrease in demand of and therefore in the returns on assets.

At any rate the public sector’s role in providing incomes in old age will diminish and an increasingly important role will be played by supplementary private provision which is less sensitive to demographic developments than pay-as-you-go public pension systems. Yet the voluntary nature of supplementary pension provision represents the risk that particularly low income households – which would be most in need of additional sources of income in old age - are not willing or able to set aside additional savings for old age on a consistent basis. “Empirical findings confirm that lower-income groups are less willing and able to make additional savings for their old age pensions, and that this is exacerbated by these groups being less well informed about financial matters” (Börsch-Supan & Essig 2005: 3). Unemployment poses a further challenge as it causes difficulties in saving for retirement and less entitlements in pension insurance.

There is a strong, positive link between training, educational attainment and pension level (OECD 2011b). Krenz & Nagel (2009) present German data to show the link between vocational skills and the pension income distribution and growing post retirement poverty. They disaggregate pension distribution with respect to gender, vocational education level, and place of residence. Below we focus on the education aspect.

The individual “Pension Points” (PP) are the dominating factors for the pension level of a person in the German statutory pension system. Individual PPs are calculated for each of the n years of the working life as the ratio of the individual gross salary (IS) and the mean gross salary (MS)

\[ PP_t = \frac{\sum_{t=1}^{n} IS_t}{MS_t} \]

In another arithmetic which is not a topic of this paper (for the details of the calculation methods of the German statutory pension system see Krenz & Nagel and their references) the PPs are translated into monetary values (Pension Point Values).

A person without vocational training is classified as low skilled, a person with a completed vocational training is classified as medium skilled and an academic degree leads to a classification as high skilled. Further training and non-professional work also influence the skill level status. Table 1 gives a comparison of average PP levels of men in West Germany in 2008 by skill and age group cohorts.

Table 1: Pension levels increase and poverty risk decreases with education.

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<tr>
<th></th>
<th>1939-1941</th>
<th>1955-1957</th>
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<tbody>
<tr>
<td>Low skilled</td>
<td>32.32</td>
<td>30.44</td>
</tr>
<tr>
<td>Medium skilled</td>
<td>39.84</td>
<td>38.70</td>
</tr>
<tr>
<td>High skilled</td>
<td>42.29</td>
<td>47.48</td>
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</table>

Source: Krenz & Nagel 2009: 15.

The results for other groups (e.g. East Germany and women) do not differ substantially in the education aspect. Table 1 shows the impact of education on the expected pension claims. Comparison of the situations of low skilled and high skilled men reveals that the old age poverty risk depends on the skill level. To asses the risk of old age poverty a threshold of 30 PPs is assumed. In 2008 30 PPs were equivalent to 796 Euros which was the level of social assistance. Considering that table 1 gives mean PP-values it becomes clear how high the age poverty risk of the low skilled with their mean PPs near 30 is.
Discussion and Conclusions

A main cause of old-age poverty is lack of education and a lack of saving in the years before. Low income and low skills on their part cause a low level of saving – obviously a vicious circle that should be broken. It would be quite cynical to argue that the “child has already fallen into the well” when a person is old and poor.

Fields of economics and business education for third agers are consumer education – e.g. how to scope with a tight budget - , financial education and vocational training to find ways to increase income, including entrepreneurship. To set up an own business may constitute an appealing option for early old agers as they can choose their hours of work and the efforts they make. However, concepts of entrepreneurship education for the elderly have still to be developed.

In any case it must be considered that the risk for old-age poverty is the highest for the unskilled. So it is basic education that is needed. The target audience is often stigmatized by negative experience in the school system, suffers from a negative self-perception and does not consider learning as a chance and an option for self-development. They rather associate learning with restraint and pressure. Maybe they pass their negative attitude towards learning, further training and education at large to the next generations.

In the light of negative experiences of the target audience in formative educational processes a dissociation from school environments is purposive. Intergenerational approaches in the pattern of family literacy programs should be developed, programs like Parent and Child Education (PACE) should also integrate third agers.

Basic economics and business education for the elderly must attach to daily life problems. It is essential to go up to the target audience, to regard the concerns and interests of the target audience and to create new learning environments.

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Hierarchical positions and their influence on network structures within Communities of Learning

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Abstract: Facilitating an interpersonal knowledge transfer among employees constitutes a key building block in setting up organizational training initiatives (Argote & Ingram, 2000). With practitioners and researchers alike looking for innovative training methods (Yamnill & McLean, 2001), online Communities of Learning (CoL) have been promoted as a promising methodology to foster this kind of transfer (Rehm, 2009). However, past research has largely neglected characteristics that constitute a major obstacle to such collaborative processes, namely participants’ hierarchical positions (Romme, 1996). The current study provides empirical evidence from 25 CoL of an online training program, provided for 249 staff members of a global organization. Using social network analysis (SNA), we are able to show significant differences in participants’ network behaviour and position based on their hierarchical rank. This translates into higher in- and out-degree ties, as well as centrality scores among participants from higher up the hierarchical ladder. By incorporating these insights into the implementation of future CoL, it is not only possible to anticipate participants’ behaviour. Our findings also allow to draw conclusions about how collaborative activities within CoL should be designed and facilitated, in order to provide employees with a valuable learning experience.

Introduction
In today’s turbulent economic environment, employers and employees constantly need to update their knowledge and skills in order to face new challenges (Chalmers & Keown, 2006). Moreover, it has been suggested that facilitating an interpersonal knowledge transfer among employees constitute a key building block in setting up organizational training initiatives (Argote & Ingram, 2000). This notion is further supported by researchers like Hakkarainen and colleagues (2004), who stipulated that knowledge is being created while collaborating in social networks composed of diverse groups of people. However, in practice, the most prominent delivery method, with more than 60 percent of organizations implementing it, continues to be instructor-led classrooms (Armstrong & Sadler-Smith, 2008). While this method is well suited for preparing participants for more advanced learning (Soden & Halliday, 2000), this approach has been criticized for offering knowledge that has limited applicability in real-life working environments (Eraut, 2000). Consequently, practitioners and researchers alike have started looking for new approaches to design and implement organizational training programs (Yamnill & MacLean, 2001).

In this context, online collaborative learning has received a growing amount of attention in recent years (Brower, 2003). According to Garavan and colleagues (2010), in 2009 the American training industry spent $ 20 billion, out of a total expenditure of $ 90 billion, on online workplace learning. Furthermore, this market is forecasted to be worth € 40 billion by 2012. One promising methodology that has been developed within this framework of online collaborative learning is the concept of virtual Communities of Learning (CoL). Being defined as groups of people “engaging in collaborative learning and reflective practice involved in transformative learning” (Paloff & Pratt, 2003, p. 17), CoL have been proposed to foster the effective exchange of knowledge and experience between members of an organizations workforce (Stacey, Smith, & Barty, 2004).

The process of connecting people via CoL greatly builds upon the extensive use of electronic communication tools, such as asynchronous discussion forums. These types of communication channels have been proposed by researchers to effectively enable the establishment and development of new work designs and task processes that build upon networked communities (e.g. Venkatraman, 1994). Yet, it has also been established that for these technologies to achieve their intended goals, a clear understanding is needed of how existing organizational structures and contexts influence not only their adoption, but also
their implementation (Zack & McKenney, 1995). Organizations cannot assume that once a technology is introduced and the appropriate structure has been designed the rest will follow. Instead, communication is an inherently social act (Pearce, 1976). New tools and methodologies, which incorporate them, can only reach their full potential, if organizers fully understand how existing social relationships influence communication patterns and participants’ behavior therein (Wellman, 2001). However, past research on online (learning) communities has either provided only limited empirical evidence from real organizations (Edmondson, 2002), or neglected characteristics that constitute a major obstacle to their underlying learning processes, namely participants’ hierarchical positions (Romme, 1996).

The present study addresses these shortcomings by providing empirical evidence from 25 CoL of an online training program that was provided for 249 staff members of a global organization. Each CoL consisted of 7 – 13 participants and was centred around asynchronous discussion forums, where participants from different parts of the organizations hierarchical ladder collaboratively enhanced their knowledge and skills. In order to analyze whether participants’ communication behavior was influenced by their hierarchical position, as well as to determine the degree with which social relationships were transferred into CoL, social network analysis (SNA) was employed. The great benefit of SNA is that it provides an x-ray of how communities and networks are structured and develop over time (Cross, Laseter, Parker, & Velasquez, 2006). Moreover, Garton and colleagues (1997) have suggested that SNA is particularly useful for analyzing (collaborative) learning networks. Based on the resulting findings of our study, organizers of CoL will able to anticipate (groups of) individuals holding crucial positions and design actions targeted at participants who tend to be situated more towards the fringe of the network (Hatala, 2006). Moreover, incorporating our findings into the design and implementation strategies of future CoL will allow a more refined setup that contributes to employees’ learning experience and can foster the knowledge creation within an entire organization.

### Communities of Learning – Still a Black Box?

CoL are typically implemented in a formal, organizational context and allow an organizations staff to update their knowledge and skills on a certain topic or content domain (Rehm, 2009). Moreover, they are largely based on asynchronous discussion forums, thereby effectively overcoming barriers of time and place. By connecting participants in such a way to share their practical experiences, while encouraging them to apply the newly gained knowledge to their own working environments, allows each individual participant to contribute their own piece to the overall puzzle (Kozlowski, Chao, & Jensen, 2009).

Given its growing popularity and importance, a considerable amount of research has already identified possible success factors of similar online communities (e.g. Stacey, et al., 2004). However, past research has neglected CoL and was mainly concerned with the conditions for effective online collaborative learning. These studies looked at issue such as the impact of group size on online learning (e.g. Vrasidas & Zembylas, 2003), or the technological tools being used (e.g. Alavi, Yoo, & Vogel, 1997). However, experiences from settings in higher education, indicate that other issues also need consideration, as online training is more complex and demanding for learners than regular face-to-face settings (e.g. Järvelä, Järvenoja, & Veermans, 2008). More specifically, research has shown that participants react differently to online learning, which translates into significant differences in the amount and level of discourse (Rienties, Tempelaar, Van den Bossche, Gijselaers, & Segers, 2009). Consequently, new insights are required on the conversational patterns within online collaborative learning programs, in order to better understand how this approach can contribute to the learning process of participants (Van den Bossche, Gijselaers, Segers, Woltjer, & Kirschner, 2011).

### Hierarchical Positions and their Impact on Network Structures

It has generally been established that asynchronous communication reduces the amount of social context cues that are and can be transmitted between participants (e.g. Gunawardena & Zittle, 1997). As a result, some researchers have been able to show that the use of electronic communication technologies within organizations decreased the amount of hierarchical differences in organizational communication. More specifically, by analysing the electronic mail community of a Fortune 500 office equipment firm, Sproull and Kiesler (1986) discovered a “status equalization” process among participants (p. 1507).

However, there also exists a considerable amount of research that suggests quite the opposite. For example, Holmqvist (2009) implied that all organizational learning processes are subject to the influence of a dominant individual or group of individuals (p. 279). In his view, this dominance stems from formal,
organizational structures, such as hierarchical positions, and is supported by the attitude and behaviour of the subordinate group. Similarly, work by Edmondson (2002) suggests that management is very sensitive to hierarchical relationships, closely following established rules of conduct. The validity of these claims has been, among others, empirically tested by Sutton and colleagues (2000). Based on qualitative data from ongoing workgroups and focusing on the level of participation within learning teams, the authors found a positive relationship between the hierarchical position of participants and their level of activity. More specifically, higher level management tended to replicate their accustomed behaviour of leading teams in real-life, translating into them also leading their assigned online groups. The authors suggest that this mode of conduct stems from a drive to dominate discussions, in order to reinforce a prevailing status quo. Yates and Orlikowski (1992) also argue that top management will spend more time to proactively setting the tone, as they are concerned with losing control of online groups, which could potentially feed through to the real world. Taking into account these findings and considerations, we formulate our first research hypothesis as:

**H1:** Participants’ propensity to actively contact other colleagues will be positively influenced by their hierarchical position.

Focusing more on the opposite side of the hierarchical spectrum, Edmondson (2002) has shown that lower level management is particularly concerned about how colleagues perceive them and their work and therefore tend to experience a certain “fear of speaking up and making mistakes in the group” (p. 139). Additionally, members of this group tend to be more passive in discussions within training initiatives (Nembhard & Edmondson, 2006). However, while Sutton and colleagues (2000) follow this general notion and propose that members from lower hierarchical positions will rarely interject into topic related discussions, they also suggest that these participants have a high propensity to integrate into the group, trying to blend in while not upsetting the status quo. In practice, this then translates into activities such as flattering, or providing higher level management with basic, complementary information that does not question their position (Bird, 1994). Furthermore, Casciaro (1998) noted that occupying high-level positions within an organization provides individuals with an intrinsic attraction to lower level management. Given their position within the organization, they have privileged access to (vital) information and knowledge sources that are relevant for all employees. This power can create a type of vortex, where lower level management is trying to get connected and stay in contact with higher level management (Krackhardt, 1990). Taking into account these considerations and placing them in the context of CoL, our second research hypothesis therefore translates into:

**H2:** Participants holding higher hierarchical positions will attract more connections from other colleagues.

Based on the underlying reasoning of the first two hypotheses, it is possible to establish a connection with participants’ general position within the network structure of a CoL. A commonly used SNA measure to determine the location of individuals within a network is centrality (Hatala, 2006). It departs from the general notion that the structure of a network is related to the access to valued resources (e.g., Ibarra & Andrews, 1993; Sparrowe, Liden, Wayne, & Kraimer, 2001). As has been noted before, holding certain hierarchical positions can generally be attributed to this type of access (Casciaro, 1998). Additionally, Borgatti and Cross (2003) have argued that lower level management, with only constrained access to valued resources, will be less likely to be contacted for information. As a result, they should hold more peripheral network positions. Johnson-Cramer, Parise and Cross (2007) have found empirical evidence for this argument. In their study of a consumer electronic company, they were able to show that higher level management was situated at the centre of the organization’s information sharing network, with lower level management primarily occupying positions at the outer fringe of the same network. Considering these deliberations and findings, our third research hypothesis therefore is:

**H3:** Whether participants are at the core of their CoL, as measured by their network centrality score, will be positively influenced by their hierarchical position.

**Method**

**Setting**

The present study collected data from an online training program, whose aim was to enhance the capacity and skills of a global organization’s staff in daily work. The training program was delivered twice during a 6-month timeframe and specifically focused on five pre-defined content modules, covering different aspects of Economics. Participants engaged into two types of learning activities. First, using (multimedia)
learning materials, such as web lectures and online quizzes, participants conducted self-study. Second, and constituting the backbone of the training program, participants collaboratively discussed real-life tasks via asynchronous discussion forums. The forums were situated in dedicated CoL, each consisting of 10 – 15 randomly assigned participants. Each content module had a separate task and discussion forum. Participation in these forums was obligatory and taken into account for determining participants’ eligibility for receiving a certificate of participation. The latter was accomplished by assigning two academic staff members to each CoL. They were responsible for grading participants’ contributions, facilitating discussions, and providing help in case of technical difficulties. The facilitators were trained in working with online discussion groups and received elaborate guidelines and answers keys for all training activities.

In addition to the obligatory, content-driven discussion forums, each CoL also had its own “Café-Talk” forum, where participants could socialize and exchange private information. These forums provided the only opportunity for participants to get to know each others’ hierarchical position.

Participants
Overall, 337 participants were randomly assigned to 30 CoL. In order to be eligible to participate, participants had to be nominated by their supervisors. The present study analyses a subset of 25 CoL and 249 participants (73.88%). These decreases in CoL and participants were based on incomplete datasets of some participants and biased CoL, where not all applicable hierarchical positions were represented. The 25 CoL had an average of 9.96 members (SD = 1.72, range = 7 – 13). The average age was 43.92 (SD = 7.33, range = 27 – 58) and 54.61 % of the participants were female. Overall, 79 nationalities and 8 operational regions, in which the organization is conducting business, were represented. The participants’ educational backgrounds included Master’s (71.37 %), PhD’s (14.51 %), Bachelor’s (7.26 %) and other degrees (6.85 %). The underlying disciplines of the latter included, Health Sciences and International Law. With respect to the hierarchical positions, 82 participants held low hierarchical positions (32.93 %), compared to 93 (37.35 %) and 74 (29.71 %) for middle and high hierarchical positions respectively.

Instruments
Data on Participants’ Hierarchical Position
Participants reported their own hierarchical position via the training’s official registration form. The indicated options were subject to the organization’s official job categories. Based on the target group of the training program, three main categories were identified, namely “Low”-, “Middle”- and “High”-level hierarchical positions. Generally, representatives of the “Low” group were associated with project level work, contributing to sub-parts of the overall product. Members of the “Middle” group were leaders of such projects. Finally, participants from the “High” group were responsible for departments and often entire regions in which the organization was operating.

Data Analysis & Procedure
Network Statistics
All network statistics were computed with the help of UCINET 6.357 (Borgatti, Everett, & Freeman, 2002). The visualization of an exemplary CoL network was conducted with the help of the incorporated visualization software NetDraw (Borgatti, 2002). The underlying data was based on the user statistics from the discussion forums within the different CoL. This approach provided valuable insights into participants’ interaction patterns, without interrupting the actual learning process (Zembylas & Vrasidas, 2007). The amount and nature of an individual’s network connections was determined via out- and in-degree measures. Out-degree network connections are links between colleagues that originate from a particular CoL member. Consequently, this measure formed the basis for testing the validity of our first research hypothesis. The in-degree measure indicates how often and by how many colleagues a particular individual has been contacted from within a CoL. Therefore, this constituted our main variable to check our second research hypothesis. Both values were determined on the basis of the mean number of ties, instead of nominal ties, as this allowed to factor the size of the network in. The analysis of our third research hypothesis, focusing on the overall position of individual participants within their CoL, was based on the Freeman Degree Centrality measure. Taking into account that we were dealing with multiple CoL, we used
the standardized versions (Hanneman & Riddle, 2005). Finally, and following the work of Daradoumis and colleagues (2004), we subdivided the data according two different types of network links, namely indirect and direct links. Indirect links refer to passive connections that can take on the form of reading a colleague’s contributions, but not replying to it. This was captured via Read-networks. In case a participant actively reacted to another CoL members contribution and replied, therefore establishing a direct link, this was included in Reply-networks. Based on this distinction it was then possible to make inferences about the type of learning actions underlying a certain network connection.

**Hypotheses Testing**
Testing for the normality of the data’s distribution revealed a violation of the parametric assumption for all measured variables. Consequently, we used Kruskal-Wallis tests (H) to assess differences between groups and Jonckheere-Terpstra tests (J-T) to identify any possible linear trends. The occurrence of possible patterns underlying the H-test results was determined by post-hoc Mann-Whitney (U) tests. Being designed to only measure differences between two independent conditions, the U-test results were corrected by the Bonferroni method. As a result, our adjusted critical value of significance was .016 for this part of the analysis. Finally, we also estimated the effect size of our findings. However, the vast majority of effect size measures are only suitable for parametric data (Snyder & Lawson, 1993). Consequently, we followed the suggestion of Rosenthal (1991) and approximated the effect size (r) on the basis of the U-results. This measure takes on values from 0 to 1, where small, medium and large effects are associated with .10, .30 and .50, respectively (Cohen, 1992).

*Figure 1: Read (a) and Reply (b) Network of an exemplary Community of Learning*
Note: The layout of the figure has been determined using iterative metric multidimensional scaling; the different hierarchical positions are denoted as: “Low” – light circle; “Middle” – grey square; “High” – dark diamond

**Results**

Figure 1 provides a graphical representation of the Read- and Reply-network of an exemplary CoL. A first glance already indicated a great amount of divergence between these two types of networks. Participants were highly connected and exhibited very similar communication patterns with respect to their reading behavior (Figure 1a). However, considerable differences prevailed on whether and how participants replied to each other (Figure 1b). Moreover, a closer look also revealed a first preliminary sign that participants behavior and network position was related to their hierarchical position within the organization.

This visual impression was further supported by our hypotheses tests. Table 1 summarizes the results of our analysis of participants’ in- and out-degree network ties for both types of networks. All measures for the Read-networks were negligible. In contrast, our Kruskall-Wallis tests clearly indicated significant differences between hierarchical positions and the degree with which participants’ either replied to their colleagues, or attracted replies themselves. Moreover, the Jonckheere-Terpstra tests showed a clear trend that the amount of in-degree ties and out-degree ties were both positively influenced by participants’ hierarchical position. Additionally, an investigation of the underlying pattern revealed that the observed differences were especially pronounced between the “Low” and “High” groups (In-degree: U = 2261.50, p < .01; Out-degree: U = 2338.00, p < .05), which is also reflected in the observed effect sizes ($r_{in-degree} = -.23; r_{out-degree} = -.20$). We therefore accepted research hypotheses H1 and H2.

Table 1: Results of Kruskall-Wallis and Jonckheere-Terpstra Tests for In- and Out-Degree Network Measures

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<th>Kruskall-Wallis</th>
<th>Jonckheere-Terpstra</th>
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<tr>
<td></td>
<td>$\chi^2$</td>
<td>df</td>
</tr>
<tr>
<td>In-Degree (Reply)</td>
<td>8.89*</td>
<td>2</td>
</tr>
<tr>
<td>Out-Degree (Reply)</td>
<td>6.66*</td>
<td>2</td>
</tr>
<tr>
<td>In-Degree (Read)</td>
<td>1.16</td>
<td>2</td>
</tr>
<tr>
<td>Out-Degree (Read)</td>
<td>0.10</td>
<td>2</td>
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*p < .05
**p < .01

Table 2: Results of Kruskall-Wallis and Jonckheere-Terpstra Tests for Centrality Network Measures

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<th>Kruskall-Wallis</th>
<th>Jonckheere-Terpstra</th>
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<tr>
<td></td>
<td>$\chi^2$</td>
<td>df</td>
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<tr>
<td>In-Degree Centrality (Reply)</td>
<td>9.82**</td>
<td>2</td>
</tr>
<tr>
<td>Out-Degree Centrality (Reply)</td>
<td>8.90*</td>
<td>2</td>
</tr>
<tr>
<td>In-Degree Centrality (Read)</td>
<td>.83</td>
<td>2</td>
</tr>
<tr>
<td>Out-Degree Centrality (Read)</td>
<td>2.67</td>
<td>2</td>
</tr>
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*p < .05
**p < .01

A similar picture emerged with respect to the CoL centrality measures (see Table 2). Again, no significant differences between hierarchical positions were found for the Read-networks. However, our results for the Reply-networks did again sketch another picture. More specifically, the Kruskall-Wallis tests revealed significant in- and out-degree centrality measure differences between hierarchical positions. Another set of Jonckheere-Terpstra tests was then conducted to determine the underlying trend. The results showed that whether participants hold a central position within their network was significantly and positively influenced by their hierarchical position. In order to determine the pattern of the main effect we conducted another range of Mann-Whitney tests. Similarly to the first two hypothesis, the most pronounced difference was
again found between the “Low” and “High” groups (In-degree: $U = 2202.500, p < .01$; Out-degree: $U = 2234.500, p < .05$; $r_{\text{centrality-in}} = -.23; r_{\text{centrality-out}} = -.24$). We therefore accepted research hypothesis H3.

**Discussion**

The purpose of this study was to determine whether and to what extent participants’ hierarchical positions influence the network structures of CoL. We thereby were able to address a number of shortcomings in current research and contributed to the discussion about how existing organizational structures can affect training initiatives. In order to investigate the relationship between hierarchical positions and network structures, we employed SNA and conducted a range of hypotheses test that aimed at providing a valuable contribution to the discussion.

When considering Read-networks, we did not find any evidence for divergent behaviour between hierarchical groups. Furthermore, as everyone read everybody else’s contributions, this can be considered as a preliminary indication that CoL stimulate an interpersonal knowledge transfer (Argote & Ingram, 2000). When considering Reply-networks, we found significant differences in participants’ network behaviour and position based on their hierarchical position. More specifically, we were able to show that participants from higher up the hierarchical ladder replicated their accustomed behaviour and continued to lead their online teams by actively contacting their colleagues. Additionally, our evidence suggests that there really exists a vortex that allows higher level management to attract attention and connection from their colleagues. Finally, and building up upon the previous findings of our study, we were able to show that while higher level management held central positions, lower level management was located towards the fringes of their CoL network.

Taken together, our study provides valuable insights for HRD practitioners that are dealing with similar training initiatives. By incorporating these insights into the implementation of future CoL, it is not only possible to anticipate participants’ behaviour. Our findings also allow to draw conclusions about how collaborative activities within CoL should be designed and facilitated, in order to provide employees with a valuable learning experience. For example, acknowledging the considerable influence of hierarchical positions on CoL, organizers can device interventions that stimulate higher level management to actively draw upon the input of their colleagues, thereby allowing participants from lower level management to gradually move towards the centre of the CoL network.

**Limitations and Future Research**

The current study exhibits two main limitations that should be taken into account when considering our results. First, the current analysis considered SNA indicators that were based on individuals overall behavior within CoL. While this provides a first indication of how CoL were affected by hierarchical positions, this does not allow to determine whether and how the CoL network might have evolved over time. More specifically, did the members of the “High” group have their central position as of the beginning, or did this evolved over time. Consequently, future research should extend the current analysis and also conduct a longitudinal, more dynamic analysis (de Laat, Lally, Lipponen, & Simons, 2007). Second, connections between participants did not take into account the content of the shared information. Consequentially, network ties between individual participants might have reflected personal commonalities that have no direct link with the actual content of the training and are therefore difficult to control for by organizers of similar initiatives. Moreover, although SNA provides a valuable building block to understand how CoL are affected by existing social relationships within an organization (Wellman, 2001), this does not allow to draw concrete conclusions about the actual level of content and knowledge that has been exchanged. This could be achieved by implementing a comprehensive content analysis (CA). As a next step, future research should therefore combine SNA with the findings of CA. This would shed more light into this aspect of CoL. Moreover, by mapping the CA results against individuals’ network positions, it would be possible to provide a detailed picture of who has been in contact with whom, what they talked about, and whether this has had an impact on their network position (de Laat, et al., 2007).

**References**


Achievement Motivation across expertise levels—Implications for business education and management development

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Increasingly much attention has been given on the development of business graduates to be equipped with dealing with uncertainties and maturing into business experts (Arts, Gijselaers & Boshuizen, 2006). Likewise, the business workplace is characterized by the constant search in not only attracting eligible graduates but continuously trying to develop them, eg Nokia Corporation is committed to continuous learning and assists its people to determine the type of competencies required in various jobs (Masalin, 2003). Also, employees prefer organizations that are committed to employee development more than other rewards (McDowall and Fletcher, 2004). Hence, the need for understanding how people learn and how they develop is a prerogative of both business schools and the workplace.

However, while it is one thing that business schools and the workplace emphasize the need for continuous development, in reality much of the development and learning goes amiss. In fact, a survey of employees from Learning development company, MaST International, revealed that less than half of the employees who underwent training actually put the learning into practice (Honey and Mercer, 2009). Also, most business graduates (e.g. MBA’s) despite being exposed to superior pedagogical practices still do not deliver immediately at the workplace (Pfeffer & Fong, 2002; Gijselaers, Arts, Boshuizen, & Segers, 2006). A pertinent question at this point is, besides ailing from several institutional drawbacks like non-integration of business disciplines (van den Bosch, 2006), lack of cultural fit of the curriculum in business school (Cabreta & Bowen, 2005; Howe & Martin, 1998), why do some graduates fail to deliver at the workplace? What prevents the proper absorption of training into practice? One key differentiator could be the way people address their achievement goals in learning and development.

What we know from research is that expertise is a ‘product of high levels of motivation, effective learning, development, training, and experience and is characterized by performance levels at the uppermost ranges of a domain’ (Salas & Rosen, 2010). Further, it has been researched that as novices develop into experts they use more relevant information and make better inferences by focusing on the semantics of the information when presented with fuzzy, ill-structured problems (Arts, 2007). Also, expert set themselves superior goals of achievement; e.g. Zimmerman argued that in the development of novices to experts and adaptations to different conditions, experts as compared to novices, set specific goals with superior outcome expectations and different goal orientations (Zimmerman, 2006). In fact, therefore, it can be concluded that superior goal orientations differentiate an expert from a non-expert.

More recently in the field of professional development, people have been researching on the types of goal orientations aspired in terms of mastery goals (seeking to increase competence through learning something new) and performance goals (seeking to gain favorable judgments of competence) (Elliot et al., 2001). Such different goal orientations produce different ways of ‘approaching, engaging in and responding to achievement situations’ (Ames, 1992). Despite its applicability, the goal orientation theory has been fragmentally used in either studying college student motivation (Shell and Husman, 2008; Debnath, 2006) or employee motivation (Elliot and McGregor, 2001). To the best of our knowledge there has been no empirical evidence on understanding achievement motivation across a trajectory of development of graduates to managers. Moreover, though it has been studied in the context of business managers, not much attention has been paid to motivation in business graduates. The present study hopes to understand the development of novices to experts in terms of the differences or similarities in the goals they pursue such that business education and management development programs can be better informed while implementing interventions.

References


PBL in a culturally diverse world

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Abstract: Educators are challenged with complex forces of globalisation and responsibility to prepare students for global mobility, employability, and culturally diverse working environments. Student cohorts are becoming increasingly multicultural, but there is a lack of focused research on the approaches of learning in intercultural environment. This resulted in stereotypical views on learning behaviours of international students, discussion of suitability of western teaching methods in multicultural settings, and controversial research findings. This paper evaluates four PBL projects which were piloted to enhance undergraduate marketing students’ employability skills and motivation. The outcomes revealed unexpected aspects from a multicultural perspective. The author critically reflects on the effects of cultural composition of student groups, the level of motivation depending on the projects’ relevance, and the suitability of the PBL method.

Introduction
In the era of global transformation, the educational system is challenged with complex forces, including rapidly developing technology, emerging employability requirements, as well as growing interconnectedness of a global society. In the real world context, business educators are given the responsibility to prepare students for the needs of globalisation (Cheung & Chan, 2010), a mobile workforce (Olcott, 2009), and more culturally diverse work environment (Crossman & Clarke, 2009). Universities encounter a growing cultural diversity of student cohorts due to international exchange programs which are predicted to grow to 7.2 million international students worldwide in 2025 (UNESCO, 2006). Teaching of multicultural student groups poses questions regarding the instructional design, culturally preferred learning styles and intercultural teamwork effectiveness (Holtbrügge & Mohr, 2010; Umans, 2011).

This paper will look into how people from diverse cultural backgrounds work on action learning and PBL projects in business studies, and what the outcomes such projects yield. In forty years, PBL evolved into many variants, and the PBL may refer to ‘almost any form of learning that incorporates at least one of the elements described by Barrows’ (Taylor & Miflin, 2008, p. 752). PBL is a constructivist method which requires students to work proactively in a problem-solving process as a team, to discuss and present their findings. Western educators, however, voice concerns regarding the international students’ ability to adapt to the western methods of learning such as debates and presentations. Due to existing academic ethnocentrism (Durkin, 2008), international students are often evaluated from an English-dominant perspective, as most of studies on international students are conducted in the UK, USA and Australia, using western research instruments. Consequently, Asian students are stereotyped as memory and groupwork dependent (Ramburuth & McCormick, 2001; Heffernan, Morrison, Basu, & Sweeney, 2010).

The author reviews four student projects facilitated during the 2009-2011 at Swinburne University of Technology in Melbourne (Australia) in multicultural student groups. Multicultural student cohorts are representative of the Australian population. Statistically, 44% of Australians were either born overseas or had at least one overseas-born parent, and 44% of recent migrants were Asian-born (Cultural diversity overview, 2006). As Australia became a destination for international students, there were 256,087 enrolments by full-fee international students on a student visa as at January 2012 (Australian Government, 2012). At Swinburne, large numbers of students come from Asia and Latin America. Many of them apply for a Permanent Resident visa after graduating, making cultural collaboration vital for the country’s economic prosperity. The author piloted action learning projects in the School of Business aiming at developing employability skills of the marketing undergraduates as well as increasing their motivation for learning. The overview of the outcomes revealed unexpected aspects from a multicultural learning perspective. First, the author describes the learning (instructional) design, student profile and PBL projects’ results. Further, the paper discusses how the synergy of employability skills creates new capabilities.
Finally, it presents conclusions based on the evaluation of PBL implementation and considerations for further research.

**Learning design and student profile**

The School of Business strongly encourages constructivist teaching strategies such as PBL and action learning, to enable students to experience practice-based learning. This also allows for the incorporation of employability skills into the learning design. This paper overviews four projects which were imbedded in a curriculum of a semester’s length subjects (units). Different groups of students were challenged with Client problems and had to present solutions for by the end of the semester. The tasks were: Project 1: Advertising strategy development for an ecological skin care company; Project 2: Research of reasons of low blood donation rate among young Australians, Project 3: Consumer’s buying preferences in a shopping precinct in Melbourne, and Project 4: An in-house student business event.

The extent of theory provided in PBL projects varied slightly. The Advertising Project (1) incorporated most of theoretical guidance, and was implemented in the second semester of study. Both research projects (2 and 3) were carried out during the third semester of study and relied on students’ initiative to discover underpinning theories. Project 4 relied on application of theoretical knowledge gained during 2 years of study and piloted a team-teaching technique.

The assessment structure incorporated the tutor’s feedback, mentoring and coaching of students. Grading rubrics which are considered to be beneficial to international students (Crose, 2011), were used consistently in all project assessments to detail marking criteria. Students also self-evaluated their teamwork and contribution of individual team members.

The projects were implemented in groups of students under the age of 25, with a varied proportion of international students (from 16% to 45%) per group. Groups were divided in teams of four or five. Project 1 student cohort included international students from Japan, India, Indonesia, Vietnam, Mauritius; Project 2 students from China, South Korea, Vietnam, Kenya, Mexico, Colombia, India, US; Project 3 from Brazil, Vietnam, and India. Project 4 was carried out by the same Project 2 group except of a few students.

**Discussion**

Project outcomes may be evaluated by comparing students’ “pass” rate (achieving the overall grade of over 50%), a proportion of teams selected for external Client presentations, and employability skills development. Table 1 below summarises the results, which should be viewed in conjunction with the employability skills evaluation summarised in Table 2 which will be discussed further.

<table>
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</thead>
<tbody>
<tr>
<td>Semester of study</td>
<td>2nd</td>
<td>3rd</td>
<td>3rd</td>
<td>4th</td>
</tr>
<tr>
<td>Students enrolled per group</td>
<td>n=20</td>
<td>n=23</td>
<td>n=40</td>
<td>n=20</td>
</tr>
<tr>
<td>Proportion of international students in a group</td>
<td>33%</td>
<td>45%</td>
<td>16%</td>
<td>41%</td>
</tr>
<tr>
<td>Proportion of students selected for Client Presentation</td>
<td>47%</td>
<td>91%</td>
<td>20%</td>
<td>n/a</td>
</tr>
<tr>
<td>Pass rate</td>
<td>100%</td>
<td>96%</td>
<td>85%</td>
<td>95%</td>
</tr>
<tr>
<td>Grade average (out of 100)</td>
<td>75.5</td>
<td>71.3</td>
<td>73</td>
<td>70</td>
</tr>
<tr>
<td>Grade average of international students (out of 100)</td>
<td>73</td>
<td>75</td>
<td>70</td>
<td>79</td>
</tr>
</tbody>
</table>

The assessment results suggest that the most successful PBL projects were those which motivated students most. Project 2 highlighted blood donorship in the aftermath of the bush fires which killed 170 people; the sample corresponded to the students’ demographic profile. The Advertising project (1) involved product testing and operational application of consumer behaviour theory. Surprisingly, the in-house student project did not incite such an excitement and the sense of responsibility as external projects.

The outcome of the Project 2 is noteworthy: the overall group results are the highest, and the results of international students surpassed those of the overall group (75 grade average to 71.3, respectively). The proportion of the international students in that group was the highest (45%) with a very
diverse cohort (China, South Korea, Vietnam, Kenya, Mexico, Colombia, India, and one American). These international students were unable to gravitate to one specific cultural group and spread into different teams. Also, the nature of research projects required close team cooperation in fieldwork and data processing stages. Project 4 was implemented during the following semester by almost the same student group composition. Project tasks were delegated to different teams which proved to be ineffective: international students formed their own high performing team but the internal group communication was lacking. The employability aspect of Project 4 will be discussed further. The experience confirms research findings that ‘creating balanced groups is key to successful PBL’ (Pennel & Miles, 2009, p. 391).

The overall achievement rate of the PBL projects was higher compared to a teacher-centred delivery. For example, the grade average for a non-PBL delivery of the same Advertising subject by the same tutor the same year was 63 (n=79) and pass rate of 70%. It is evident, that Swinburne PBL projects created exciting real-life experiences to students. The key, according to Dewey (1938, cited in Kolb & Kolb, 2005, p. 207) is ‘to select the kind of present experiences that live fruitfully and creatively in subsequent experiences’.

**PBL and employability skills development**

Employability skills development is incorporated in competency-based education and Australia’s national policy of qualifications (AQF, 2011). It was decided that inclusion of selected facets of all eight employability skills was relevant to all four projects. Table 2 illustrates the level of employability skills’ requirements established before the commencement of the projects and the actual level demonstrated by the end of the semester.

Table 2: Observation of employability skills development

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<tbody>
<tr>
<td></td>
<td>required</td>
<td>achieved</td>
<td>required</td>
<td>achieved</td>
</tr>
<tr>
<td>Communication</td>
<td>M</td>
<td>H</td>
<td>H</td>
<td>H</td>
</tr>
<tr>
<td>Teamwork</td>
<td>M</td>
<td>H</td>
<td>M</td>
<td>H</td>
</tr>
<tr>
<td>Problem-solving</td>
<td>M</td>
<td>H</td>
<td>M</td>
<td>M</td>
</tr>
<tr>
<td>Initiative and enterprise</td>
<td>H</td>
<td>H</td>
<td>H</td>
<td>H</td>
</tr>
<tr>
<td>Planning and organising</td>
<td>M</td>
<td>M</td>
<td>M</td>
<td>M</td>
</tr>
<tr>
<td>Self-management</td>
<td>H</td>
<td>H</td>
<td>M</td>
<td>H</td>
</tr>
<tr>
<td>Learning</td>
<td>M</td>
<td>H</td>
<td>M</td>
<td>M</td>
</tr>
<tr>
<td>Use of technology</td>
<td>H</td>
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</table>

L-Low level of skill, M-Medium level of skill, H-High level of skill

Projects 1 and 2 appeared most advantageous for employability skill development. Students’ motivation and engagement could be an underlying reason which was expressed in high level of “Problem Solving” and “Learning”. The “Learning” facet incorporates coaching of underperformers by co-learners, which was the case during the preparation for Client Presentation in the Advertising Project. This project oozed initiative and creativity: students created concept boards for creative ideas. Projects 1 and 2 excelled in an overall group cooperation and teamwork. Project 4 group was divided into designated task teams which proved to be detrimental to the entire group’s learning. It has to be noted that the international task-team outperformed other teams and showed more initiative, for example, by creating interactive and online promotional materials. Unfortunately, the learning was not shared due to a lack of internal communication. This may suggest that PBL is better suited when the entire group is involved in the same stages of the problem solving process, as in marketing research projects.

**Students’ critical reflection**

In all projects students were asked to conduct self and peer evaluation, and write informal reflection reports on their learning process and teaching quality. Analysis of *verbatim* (English expression not corrected)
Relevance of learning styles in PBL projects

multicultural groups are encouraging indicators for the future multicultural workforce. The performance outcomes of student groups demonstrated a drop of motivation and self-regulation. attitude increased significantly during the PBL project over fifteen months, while the non-PBL control groups Self-regulation skills (time management, concentration, and self-testing) as well as motivation and Kwong, Chan, Lam, & Downing, W-K., 2008). Downing et al. (2008) demonstrated that in the PBL student a Hong Kong university on the impact of PBL approach outside the field of medicine (Downing, K., Kwong, Chan, Lam, & Downing, W-K., 2008). Downing et al. (2008) demonstrated that in the PBL student groups Self-regulation skills (time management, concentration, and self-testing) as well as motivation and attitude increased significantly during the PBL project over fifteen months, while the non-PBL control group demonstrated a drop of motivation and self-regulation.

Swinburne PBL outcomes suggest that there is no significant difference how culturally different student groups develop employability skills in the PBL environment. The performance outcomes of multicultural groups are encouraging indicators for the future multicultural workforce.

Relevance of learning styles in PBL projects

Another aspect of PBL success in a multicultural environment is a natural learning space for different learning styles. There are very few attempts to research different learning styles of business students and the effects of cultural values on learning styles (Jaju, Kwak, & Zinkhan, 2002; Holtbrügge & Mohr, 2010). Heffernan et al. (2010) researched marketing students in Australia and China, and noted considerable differences in the preference of learning style and teaching aids. Jaju et al. (2002) established differences of learning styles based on Hofstede’s cultural dimensions and Kolb’s Experiential learning model (Kolb & Kolb, 2005), arguing that ‘students in high Power Distance culture are not expected to seek knowledge actively through their own experiences’ (Jaju et al., 2002, p. 52). Holtbrügge and Mohr (2010), however, challenged the stereotypical belief that learners from high power distance cultures would exhibit a positive association with the learning style of Reflective Observation (Kolb & Kolb, 2005). The study provided no clear cut evidence for an influence of Power Distance on learning styles, and did not provide empirical support for this hypothesis. The author’s personal experience of teaching in India (high Power Distance culture) also implies that cultural dimensions cannot be simply aligned with the learning styles preferences. For example, out of 400 surveyed students in India, 17.5% indicated that they would expect closer tutor-student relationships, if studied overseas, and 54% clearly expressed their desire of practical and action learning. This observation is congruent with Holtbrügge and Mohr’s (2010) findings. In contrast, Umans (2011) concluded his research on problem solving among multicultural international students with a disappointing suggestion that cultural diversity in learning teams has a negative influence on group performance and outcomes. Research instruments in most cases were translated questionnaires which pose the question of method bias and pseudoethic bias, as constructs may be expressed differently in different cultures (Watkins, 2010).

The author’s experience in PBL projects based on observation of undergraduate marketing students’ performance indicates that when students build on cultural differences in a synergistic way, they enhance the overall learning experience for the entire group. PBL success, of course, depends of many
variables, such as practice and theory balance, and a balance between a teacher and student directed learning (Gordon, 2009). Nevertheless, it does suggest that PBL is a suitable method in a culturally diverse setting. Given time, international students get accustomed to the Australian teaching methods and are able to perform according to the assessment criteria as well as local students. This view is consistent with the proposition that international students need to adjust to new challenges in the academic world, and that ‘cross-cultural coursework experiences foster interactions between host and internationals students, leading to superior performance compared to homogeneous group work, and they allow students to develop varied approaches to solving a problem’ (Crose, 2011, p. 392). The findings that the group with the highest proportion of multicultural students (45%) outperformed more homogeneous groups may be subject for further research. The challenge is to produce a research design with a valid measurement instrument. Observational and experimental modes may prove to be more effective than questionnaire based surveys.

**Conclusion**

Swinburne PBL projects created exciting real-life experiences to students, and enhanced their motivation for learning. The projects contributed to employability skills development in a culturally diverse student groups and created synergies that lead to new capabilities. The PBL also proved to serve as a socialisation process for international students, enabling them to adjust to the new teaching methods in a new country, and achieve their potential in practice-based learning.

The author argues that a semester’s length PBL project creates a socialising collaborative environment and is not perceived as confrontational as a debate or presentation. Further research of PBL projects in diverse cultural learning in business studies is needed to assess to what degree the Swinburne experience could be generalised.

**References**


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During the last few years economics and business education have emerged as one of the largest fields of study in higher education. Simultaneously, the pressing concern for improving the quality of higher education in these fields has led to a definite need for more knowledge about effective instruction methods and tools, as well as about innovation (in terms of both methodology and contents). This has been the background to establish a network to disseminate the results of the efforts undertaken by researchers and professionals in the field of educational innovation. "EDiNEB", established in 1993, is such a network.

The acronym EDiNEB represents two entities: the EDiNEB Network and the EDiNEB Association, where the prior is an international network/association of people and/or institutes that are considering the implementation of educational innovations in economics and business and the latter is a legal personality under Dutch laws registered in Haarlem.

The general aim of the EDiNEB Network is to provide mutual support to member institutions who wish to adapt their curriculum to highly innovative programmes. There are three primary goals: strengthening of membership institutions in their realisation of innovative programmes; strengthening of faculty capacities related to innovative education; development of technologies, approaches (such as problem-based learning), methodologies and tools appropriate to curricula; emphasising applied economics to domestic situations, or curricula especially designed for developing countries focusing on (local) societal needs, or curricula with an orientation to skills training; problem-solving or professional practice. Strategies to achieve these goals can be summarised as follows: Emphasis on institutional support and capacity building through exchanges, dissemination of information, improved communication and publications; Emphasis on partnerships between universities; Focus on research and development, in particular regarding questions of relevance to education in economics and business administration.

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