EMBEDDING SKILLS IN UNDERGRADUATE DEGREE COURSES

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Paper presented at the British Accounting Association Education Special Interest Group Conference , London May 2006
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We acknowledge funding from the Learning and Teaching Development Fund of the University of Glasgow, and the support of Mary McCulloch of the University's Learning and Teaching Centre, and Gillian Maciver and Ronnie Lo of the Department of Accounting and Finance.

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ABSTRACT

This paper reports on the attempt of a university accountancy degree programme to develop teaching material that provides a basis for the continued development of student skills. Previous research (and teaching experience) indicates that many first year students appear not to have appropriate learning strategies or the necessary skills to deal adequately with the contested nature of much of the business and accountancy disciplines. Addressing the skills gap at an early stage in students' university studies is important to accelerate a student's cognitive development and provide the skills required by employers. To help bridge this gap, two compulsory courses for first year students in an accountancy degree programme; an introductory statistics course and an introductory management accounting course, have developed small group teaching material that has attempted to embed the appropriate skills for life long learning and successful careers.

The small group teaching has been developed to allow students opportunities to build their skill base, and, alongside their employability profile, develop their subject specific knowledge. While other studies investigating skills development have reported on student performance, this paper concentrates on how the small group teaching has been received by students. The teaching delivery methods and practices have been managed and monitored by the project team and, based on a sound methodology; evaluation has focussed on qualitative techniques. Preliminary analysis of the reflections by staff during briefing and debriefing sessions; student focus groups, which have been managed independently by the university's teaching and learning service; and surveys results are included in the paper.

The preliminary analysis, which focuses primarily on the student focus groups, seems to suggest that students are unclear about how the role of skills fits in with a University degree programme and whilst employment is an important motivation for students, employability in terms of skills development does not seem to be a priority. The results indicate a number of themes. Students seem to use time management as a panacea for not engaging in the skills agenda, or indeed other aspects of the degree. Modelling, an important aspect of many of the degree disciplines, is not recognised by students. Lastly, though students seem to recognise the importance of life long learning they are not actively engaged with it and, therefore, seem slow to recognise the need to improve their skills base for life long learning.

Keywords: skills, skills agenda, employability, time management, modelling and life long learning

Introduction

This paper reports on a project at a major Scottish University, whose aim has been to develop and deliver teaching material with a sound pedagogic base that will, in alignment with the University's strategies of Quality Enhancement and Employability, allow students to develop transferable and employability skills needed for life long learning and a successful business career. The project has been concerned with how the teaching material could be constructed to support skills development, the processes involved in developing the teaching material, and has been particularly concerned with how the teaching material and processes should be evaluated and reviewed. As the teaching material has now been developed and delivered, this paper reports on the comments of the students involved in the project on their reactions to the project's attempts to integrate skills in two of their first year courses.

The project has embedded skills development within two compulsory level one courses of an accounting and finance degree programme. Experience indicates that many first year students appear not to develop appropriate learning strategies or posses the necessary skills to deal adequately with the contested nature of the business and accountancy disciplines. This skills gap appears to result from students relying on instrumental and shallow learning strategies, as perhaps they did at school. The project contends that addressing the skills gap at an early stage in students' university studies is important to accelerate students' cognitive development and provide the transferable skills required for life long learning and by employers. Current research in accounting education clearly shows that there is a perceived skills gap when investigating the opinions, attitudes and comments of relevant employers, students and recently qualified accountants (Arquero Montano et al 2001, 2004; Gammie et al 2002; Hassall et al 2004; Francis and Minchington 1999).

It is also clear from the accounting education literature that the provision of skills is neither easy or straight forward. (Tempone and Martin 2003) Further, Morgan (1997) refers to the tension between skills development and the provision of support for skills in higher education and notes that this tension is particularly high in vocationally-based degrees. Hill and Milner (2005) have found that some accounting academics have the attitude that there is "no time" for skills development in the accounting curriculum, due to the demands of the discipline and professional accreditation.

The project has developed small group teaching material for a level one management accounting course and a level one business statistics course. The newly designed learning and teaching material allows students opportunities to build their employability profile while developing subject specific knowledge and skill bases that will provide an integral pathway to higher levels of cognitive development. The project has concentrated addressing a selection of generic and subject specific employability skills listed in Table 1. These skills represent a subset of those identified by previous studies investigating accounting graduates. (See for example; Francis and Minchington 1999; Gammie et al 2002; Hassall et al 2003; Arguero Montano, et al 2001, 2004; Morgan 1997; Tempone and Martin 2003; Zaid and Abraham 1994)

As part of its research design the teaching and learning material developed has been evaluated in a number of ways, concentrating on qualitative methods. The evaluation has included collecting data from students via the active involvement of staff from the University's Learning and Teaching Service. Focus groups have been held throughout the academic year, which have been independently managed by the Learning and Teaching Service. It is primarily the results from the focus groups that is reported in this paper.

The paper is structured as follows. The next section reviews the background to the project including a review on the nature of the perceived skills agenda and the skills gap between employers and students. A review of the project and how skills were integrated into the level one compulsory courses follows. A discussion of some general issues and themes discovered from the focus group data follows. The paper ends with a discussion of the major issues brought forward.

Table 1: Project Employability Skills								
	Skill Groups							
Employability skills addressed in the project	Communication	Self awareness & interpersonal	Inquiry & critical analysis	IT	Numeracy	Problem Solving	Creative	Organisational
Effective written communication	**							
Effective oral communication	**							
Effective visual communication	**							
Effective presentation	**							
IT Skills				**				
Data handling				*	**			
Critical data analysis			**		**			
Evaluation of sources			*		*			
Critical analysis			**					
Model building choices & application					*	**		
Model building: processes & evaluation					*	**		
Searching for alternatives / solutions					*	**		
Critical evaluation of alternatives						**		
Effective case analysis						**		
Contextual learning						*	**	
Combining & Synthesis of ideas			**			*	*	
Taking responsibility for own learning		**	*				*	*
Effective team work		**						**
Work management / organisation								**

** = Prime element of group: * = associated with / secondary element of group

Background

The Nature of the Perceived *Skills Agenda*

No matter what discipline is being considered, or what level of education is being addressed, skills appear difficult to define. Bolton and Hyland (2003) refer to the "nebulosity" surrounding skills and offer an interesting discussion on what the term skills actually means. Skills, it is claimed, have no substance, as compared to knowledge, and have even been called "thought preventers". In this demeaning sense, all you can do is specify a skill. Building an agenda to further the debate on the nature of skills is, therefore, problematic.

The basic premise of the project, and this paper, however, has been that skills are important for life long learning and employability and are not thought preventers but thought enablers. This premise is in line with the current views of professional bodies and significant elements of the higher education establishment (see

for example, Dearing 1996, 1997; SHEFC, CVCP 1999). The combination of subject specific elements and generic skills provides *value added* in employability profiles of students (Arguero Montano et al (2004). The challenge for academics in higher education, therefore, is to change what is taught and how it is taught, based on new priorities to ensure the development of the skills which are desirable, generating the value added (Tempone and Martin 2003, Stubbs and Keeping 2002). This project has attempted to do just that, change the small group teaching of two degree courses to facilitate skills development alongside subject learning.

Tempone and Martin (2003) investigated the skills gap by exploring how students move between theory and practice, taking a phenomenological approach. Students appeared to take several courses of action when analysing accounting information for an assignment and they concluded that these activities helped to develop generic skills and to develop life long learning. They suggest that there are two assumptions underpinning the skills debate; what students learn at University is theory and (secondly) that students are not taught how to apply theory. Perhaps this, the gap between learning theory and applying theory is the best description of the nature of the *perceived* skills gap.

As well as value added, Arguero Montano et al (2001) argue for a clearly defined professional profile for accounting graduates and, on the basis of a survey of CIMA employers in UK, detail skills that are considered important by professional accountants for that profile. Within this profile the highest ranked skill is the ability to verbally present and defend the outcomes of their own work. It is notable that skills that both these skills encompass abilities reflective of students with high levels of intellectual maturity (Perry 1970), yet surprising that explicit commitment to life long learning and ability to develop methods of effective learning were ranked low by the CIMA employers. Hassall et al (2003), as part of the same investigation, compared the CIMA employers' rankings with those of students and newly qualified management accountants. Although the students and employers agreed on the ten most important skills, they disagreed on how those skills were ranked, perhaps an area that widens the *perceived* gap. Gammie et al (2002), by examining the stakeholders involved, asked who is the best judge of what future skills accounting graduates are likely to need? Their study showed that meta-skills, i.e. to be adaptable and flexible, and to have imagination, are important: as well as the more often cited generic and transferable skills. These studies provide clear indications that students'employability profiles need to include a range of skills and for that range to include skills at different levels of sophistication.

Arguero Montano et al (2004) investigated the perceived skills gap in a second study and found that motivation of students towards the subject material is very important, which is aligned with the constructivists theory of learning. Students who are more motivated and who have the opportunity for assimilation develop deeper understanding of course content, as well as enhanced vocational skills. The results of their study indicate that students perceived the use of complex (rather than simple) case studies to be helpful for developing skills. The project has taken on this finding in the development of its small group teaching material.

What skills then do these studies and others point to? Francis and Minchington (1999) study found that employers (and academics) felt it was important for students to have an understanding of quantitative techniques beyond what they may need to use in practice. Quantitative skills were seen as differentiators of expertise and power. Zaid and Abraham (1994) found differences in the perceived needs of academics, employers and recently qualified graduate accountants with respect to communication skills. Employers ranked casual verbal presentation skills and intelligent analysis skills as the most important communication skills (again encapsulating the requirement for high level critical and evaluative skills within their concept of communication skills). The academics and graduate accountants reported that communication skills were not developed by the accounting curriculum, while written communication skills were, points that this project has taken into account. The study went on to ask recent graduates and employers of the problems encountered when they first entered employment. Interestingly, and importantly for this project, over one third of the academics and one half of the employers believed that the accounting curriculum contributed to problems in early employment related to working in teams and report writing.

The Project

Nature of the Project

Introduction to Business Statistics (IBS) and Management Accounting 1 (MA1), both level one courses, were chosen by the team as suitable candidates for the project work . On the basis of the project's aims and objectives, the small group teaching, or tutorials, for each course were redesigned embedding employability

skills. IBS and MA1 are both compulsory courses in the first year curriculum of the Bachelor of Accountancy (BAcc) degree at the University of Glasgow and are mainly attended by BAcc degree students, therefore effectively the same group of students attended both courses: minimising any impact of having different student groups on the evaluation analysis. IBS was delivered to the student cohort in the first semester, while MA1 was delivered in the second semester. These courses are integral parts of the first year curriculum, and they provided a variety of different types of learning aims and objectives. Including the two courses therefore allowed the experiences gained on one course to be transferred to the other, thereby providing additional opportunities for skill development. The courses differ with respect to subject matter, and the differences had an obvious impact on the selection of the employability skills that were emphasized in each course. Whilst both courses are often perceived by students as quantitative, both also include a range of more qualitative learning objectives. Details of the courses are available from the Department's website at www.accfin.gla.ac.uk/.

The small group teaching material developed for the project recognizes that students possess and exhibit different levels of intellectual maturity and varying learning styles. If students lack intellectual development, their study of subjects like statistics and management accounting is affected. Intellectual maturity, learning style and skill development are critical elements of the effective student learning. Management Accounting, for example, which has few rules to determine "correct" ways of analysing or presenting data, is a difficult subject for students to study if they possess a dualistic approach to their learning. As students move from the field of descriptive statistics to inferential statistics their learning style and intellectual maturity becomes important for their understanding, and has an corresponding impact on skill development. The use of new learning interventions should encourage students to adopt more appropriate learning strategies, which will aid their employability via appropriate skills development.

The employability skills that have been integrated within the courses are set-out in Table 1 and the allocation of these to specific classes is discussed in the following section. Integration of skills elements has been achieved by including skills based activities alongside the subject specific learning activities, via the utilisation of datasets, problem based learning and small case studies within the learning materials. Materials were developed jointly between the project leaders and the project facilitator and attempted to include innovative pedagogic practice where relevant.

The types of devices used within the learning interventions that encouraged the development of appropriate employability skills included the following learning methodologies:

- Problem based learning assignments.
- Preparation of presentations.
- Debates.
- Case based problems and questions.
- Reflective self appraisal.
- Group based work assignments – within and outwith class time.

The planned integration of skills based teaching needed to work within the context of the degree and the courses selected for the project work, as well as the student cohort. The small group teaching material was therefore developed taking into consideration a number of important issues: the variety of course aims and objectives and subject matter, the impact of intellectual maturity and learning style and the variety of different teaching methods either existing or available to each of the courses. Details of the material developed for each course is reviewed in the following section.

Integrating Skills

The approach taken to introduce employability skills into both courses under this project took a similar approach to the construction of the new small group teaching (tutorial) tasks and classes, including:

- Tasks and activities were structured to encourage and develop a range of employability skills alongside subject/discipline knowledge and skills development.
- Explicit statements of the employability skills objectives were given prominent positions in all the tutorial class assignment material, along with the subject specific learning objectives.
- The tutorial assignment material, which was handed out in advance, detailed what work was required in preparation for the class as well as an outline of the work and tasks to be completed in class.

- The class sessions and required preparatory work were designed to include interactions with employability skills development implications.
- Tutors' notes were produced for each class that addressed both skills and subject learning objectives, including information on how the tutorials should be managed: ensuring both skills and subject issues were addressed and that there was a degree of uniformity across the tutors.
- Tutorial team briefing and coordination meetings were held prior to each tutorial class.

The tutorial team for each course consisted of the course coordinator, the project facilitator and a senior PhD student, the same student covering both courses, therefore as far as possible maintaining stability and consistency. The following subsections deal with the nature of the small group teaching tasks designed in each of the courses, Introduction to Business Statistics in semester 1 and Management Accounting 1 in semester 2.

Semester 1: IBS

With 20 lectures delivered across 10 teaching weeks, the course has five tutorials occurring every two weeks covering material delivered across at least four lectures. Prior to the redesign, the tutorial work (small group teaching) focussed on students solving set problems intended to dovetail with the lecture schedule. The course aims to develop statistical reasoning and literacy, allowing students to apply their statistical literacy to business problems. The research into how statistical literacy and reasoning can be developed in undergraduate students has shown that there are a number of key concepts that are crucial to students developing a sound understanding of statistics and its usefulness. (Garfield 2002, Bishop 1998, del Mas 2002a, 2002b; Chance 2002, Melton 2004, Cerrito 1999, Moore 1998, Bryce 2005, Rumsey 2002, Chervany et al 1977, 1980) Bishop (1998) lists the elements of statistical thinking as taking account of variation, the forming (and transforming) of data representations, the construction of and reasoning from models, and the integration of the problem's context with the understanding of statistical concepts. With the course's aim of developing statistical reasoning in mind, it became clear that the course's responsibility to its subject matter gave a boundary to how or what skills, i.e. those reviewed in Table 1, might be included, if not emphasized, in the small group teaching.

Across the tutorials there are five statistical concepts emphasized that support and develop statistical reasoning to which the skills were addressed. The first tutorial introduces students to the variations in data publicly available and asks them to consider what to do with data's variability; the second tutorial, which takes place in the computer lab, emphasizes the strengths and weaknesses, as well as the technical aspects, of the graphical and tabular representations of data; the third considers the likelihood or chance that data might be seen in the future (or concepts of probability); the fourth tutorial moves students from point estimation to interval estimation and, therefore, into the world of inferential statistics; while the last tutorial asks the students to evaluate the impact of the hypothesis testing framework.

With the tutorials' subject matter clearly defined, the next step was to refer to the skills listed in Table 1, deciding which skills would allow, for not only enhanced employability and skill development, but also for sound conceptual development. The employability learning skills that were explicitly included in the tutorial classes are detailed in Table 2: some of which, for example data handling skills and skills necessary for critical data analysis were emphasized in more than one tutorial.

To facilitate the integration of the employability skills, at this stage it was decided that each tutorial would use a different teaching method. Rather than consisting of a given set of problems where students were expected to generate answers, the redesigned tutorials would focus more on situations where statistical concepts could be applied and after application, discussed. The redesigned tutorials would have more of an emphasis on contextualised learning. To support the contextualised learning, a comprehensive dataset of accounting and economic variables concerning the FTSE 100 market index was developed before the start of the course that the students would have access to via the Department's VLE. Students would be able to reply on the dataset, when appropriate allowing them to build their data handling skills more fully. The dataset was also used for the course's assessed project work, which the students were briefed on early in the course. As each tutorial was issued with an information sheet, detailing the tasks to be completed prior as opposed to during the tutorial and using the same data set whenever possible allowed the students to cumulatively build data handling and critical analysis skills.

Table 2: Example Employability Skills Learning Objectives

Semester 1 – IBS

By the end of the tutorial students should be able to:

- Improve their information retrieval skills.
- Improve their data handling skills.
- Recognize the skills necessary for critical data analysis.
- Improve their ability(s) to work in groups.
- Improve their effective presentation and communication skills.
- Expand their IT skills.
- Improve their model building choices and application skills.
- Understand more fully contextualized learning.
- Improve their model building skills.

Semester 2 – MA1

In terms of employability skills development, by the end of the tutorial you should:

- Improve your oral communication and presentation skills.
- Have developed your ability to search for data.
- Improve your skills of evaluation of sources.
- Improved your ability to handle & analyse data, and be critical of both the data and your analysis.
- Improved your ability to analyse data, particularly qualitative data, and be critical of both the data and your analysis.
- Have developed your ability to search for data in case descriptions
- Enhanced your skills in working with others.
- Have a better understanding of the skills you need to acquire to maximise your employability.
- Improved your IT skills, particularly you spreadsheet modelling skills.
- Develop further understanding of the use of spreadsheets in modelling and solving MA problems.
- Have gained insight and understanding of the use of generic/standard techniques/models.
- Have developed your ability to select data for incorporation into potential solution models.
- Thought about applying and evaluating different modelling approaches to your analysis and data sorting.
- Have thought about how to interrelate different models used in the discipline.
- Have a better understanding of your role in your own learning.
- Have gained insight into how you learn to learn – as opposed to learn to just use techniques.
- Considered how you can learn from the "real world" and apply "book learning" to that experience ("contextual learning").

Across the tutorials the tasks required of the students were purposely mixed to emphasize the skills' objectives and to support the learning objectives. For the first tutorial, emphasizing the variability of data, students were asked to gather data before the tutorial that address certain contextual issues and participate in a discussion on the basis of the information they had obtained. For the second tutorial, which was computer based, students were expected to consider the dataset before hand, model the data during the tutorial in a rigorous fashion and then write a brief report on the basis of their modelling attempts. The report was to be handed in at the end of the tutorial. For the third tutorial, the students were to consider the parameters of a game using probability concepts and reinact the game during the tutorial. For the fourth tutorial students were to model data individually before the tutorial, work in groups during the tutorial aggregating their individual work, and present their findings during the tutorials. Lastly for the final tutorial, students were to critically evaluate using a statistical framework that extended the work they did in the previous tutorial. Presentations by the student groups were again expected. Students were also to critically review the processes involved in the framework as present their conclusions during the presentations.

By design, the tutorials became more sophisticated. Not only were the students expected to build on their skills, they were expected to expand their analysis of the dataset available to them, and to extend their fundamental analysis to include a critical review of the statistical concepts, methods or frameworks involved.

From a preliminary review of the tutor's comments, the students found the increasing level of difficulty and sophistication difficult to cope with on both a skill level and with respect to their understanding.

Semester 2: MA1

The second semester management accounting course is a fairly standard (20 credit) first course in the subject area consisting of 25 lectures, 5 practical workshop classes and 8 (approximately weekly) tutorials. From a subject perspective the tutorials are intended to cover the application and interpretation of the main elements of the curriculum and, therefore, included the topics; roles and skills of management accountants, job costing and cost allocation, process costing, variable and absorption costing, activity based costing, budgeting, standard costing and variance analysis, finishing with an integrative case question that pulled together some of the topics covered in previous classes.

Within this course the approach taken to incorporate employability skills development alongside subject learning was to construct new problem tasks and to adapt fairly standard MA tutorial questions (some based on old exam questions). Thus keeping the core of the subject learning within the solution methodology of the example, and embedding skills via the adaptation of problems (often by introducing variability) and the introduction of explicit instruction on the processes and methods that students should adopt to prepare for classes and to seek solutions. For example assignments were set that:

- encouraged students to prepare presentation materials,
- encouraged or necessitated the building and use spread sheet solution models,
- provided guidance on spreadsheet design,
- included question ambiguities and variations that lead to multiple solutions and/or approaches and the need to make choices (of assumptions for example)
- included partial solutions and required proofs, and
- provided case type problems.

The inclusion of employability skills objectives within the tutorials was planned to build on the skills developed in the previous semester and to be cumulative through out the course: essentially introducing new skills and reinforcing skills introduced earlier in ways that were intended to be complementary to the subject learning objectives. For example, in the first tutorial students were expected to build a profile of the work and required skills of management (and other) accountants based on the requirements specified in job advertisements, and to compare these requirements and roles to those discussed in the texts and with the employability skills agenda of the project courses. In another tutorial (T5 on activity based costing) students were provided with a problem that required a degree of sensitivity analysis and encouraged to approach the question by building an appropriate spreadsheet model to aid their analysis: building on modelling and IT/spreadsheet skills introduced in earlier tutorials.

In general no attempt was made to keep assignment questions and problems brief. Instead the problems were generally of a case / mini case type, providing additional contextual (and sometimes irrelevant) data in order to encourage students to develop their contextual learning skills. Further in order to ensure adequate and detailed coverage of the subject skills and methodologies that are required in this subject the majority of the new class assignments were of the adapted question type, rather than based on students being expected to research less specific real world problem, ensuring that the main techniques with which students are known to find problematic were adequately addressed in classes.

The principle employability skills learning objectives explicitly stated in the tutorial assignment sheets are listed in Table 2, which illustrates the variety and scope of the skills development. Each class included several of these skills objectives, introducing new items and developing skills introduced earlier (in IBS or MA1), most classes included 5 to 7 of these skills based objectives. Where objectives were being developed specific, and explicit, amendments to, or expansions of, these skills objectives were included in the documentation. Most of the assignment sheets also provided students with some explicit information, instructions or hints on how they were intended to complete the necessary work in order to meet, at least some of, the skills objectives.

Evaluation and Research Methodology

The project reported on in this paper has developed small group teaching material with the objective of enhancing students' employability and life-long learning skills. This paper reports on the evaluation of the

development and the delivery of the material (a prime aspect of the project). The initial evaluation design included a number of participants and a variety of different methods, concentrating on qualitative data and evaluation methods. From the outset the project integrated the evaluation delivery and the processes of development as integrated activities. This emphasis on evaluation avoiding the criticisms of, amongst others, Milton and Lyons (2003) who, in the context of technology based teaching, asked why evaluation is often seen as a separate task from the design and development of teaching.

An important aspect of the evaluation within this project was the involvement of both the University's Teaching and Learning Service and the Careers Service (including the Employability Development Adviser) ensuring that the results are reviewed from different perspectives and enhancing the objectivity and validity of the findings.

The project recognises that there are many difficulties in evaluating the impact of innovative teaching methods or materials which were discussed in Maciver, Milner and Stoner (2005). The focus of attention in this evaluation has been on student perceptions of the new materials, the redesigned classes and the effects of these on students' development of and attitudes to employability skills. A variety of methods have been attempted to evaluate the new teaching and learning interventions in order to take account of the different participants and perspectives, some with more success than others, these are summarised below.

Focus groups. Field (2000) discusses the nature of focus group research, detailing their strengths and weaknesses as a research vehicle. If used carefully, he concludes, focus groups can be highly effective means for studying education and training. Focus groups offer a way of actively involving those who are being researched. For that reason alone, they are important. The use of focus groups can be very powerful but management of the groups is crucial. An important element of the research design and, a main of the validity of the evaluation, was the involvement of the University's Teaching and Learning Service (TLS) and the University's Careers Service. Though some aspects of focus group management and communications was carried out by the project's facilitator all the groups were ran by a specialist from the Teaching and Learning Service, who also managed all initial data recording, ensuring anonymity between the students and the course/department staff. Thus ensuring an independent source of student data and helping to ensure students were able to make comments freely and openly.

At the start of the year, 3 focus groups were established, with between 5 and 10 students in each, involving a total of 24 students. Focus group sessions were timetabled for weeks 2, 6 and 11 of the first semester and weeks 1, 6 and 10 of the second semester and for the 2 second revision week, approximately 3 weeks prior to the final end of year examinations. Student numbers diminished after the initial focus group meeting, despite being offered loyalty rewards, with 7 students in 3 groups by the end of semester 1. In the second semester students were consolidated into 2 groups, one normally had 6 participants, the other 1. The final (pre exam) focus group meetings attracted only 4 students. 7 students attended all semester 1 focus groups and 6 all semester 2 focus groups, all of whom also attended all focus groups in semester 1.

As with any focus group based research there is a clear possibility of self-selection bias: are the students in the focus groups representative of the student cohort as a whole (Adamson, et al 2004). In general this will always be a problematic issue, however, the project team consider that the quality of the data achieved from focus group is potentially far richer than that obtainable from other methods and therefore consider this to be an unavoidable problem.

All focus groups were run by the same TLS specialist, who elicited responses from students based on a set of semi-structured questions based on the work and skills learning outcomes that students had, or where about to encounter, in their small group teaching classes. The length of focus group meetings varied from c. 15 to 45 minutes and were audio recorded and (anonymously) transcribed for analysis. In total the transcripts exceed 62,000 words. The intention is that these transcripts will be formally (independently) coded for analysis. The preliminary analysis in this paper is however based on a initial reading and informal coding of the transcripts.

Student reflective diaries: To provide additional and triangulation data the project is also considered and piloted the use of student reflective diaries. Student volunteers were asked to make electronic diary entries after each intervention, led by comments and questions posted by the University's Teaching and Learning Service specialist. However, despite some initial interest student contributions were minimal, and the pilot was abandoned.

Student questionnaires: Formal web bases employability skills questionnaires were administered at the beginning of the year (September) at the start of the second semester (January) and just before the end of

year examinations (May). Responses rates were variable but not very encouraging, increasing from 23% (20) in September to 26% (23) in January and dropping to a very low 8% (7) in May. In addition substantially the same questionnaire was administered to students in the previous cohort just after their final examinations (in the previous year), 35 students completed that questionnaire – providing limited comparative data.

Self-evaluation by students has been used in other studies examining student skills. Chur-Hansen (2001) concluded that self-evaluation could be used reasonably and reliably and Stoner (1999) successfully used self assessment of students' IT skills, though this was challenged by Larres *et al* (2003) and defended by Stoner (2005). In relation to students learning approaches Zeegers and Martin (2001), amongst others, have administered the Biggs study process questionnaire to establish student approaches to learning surveys of students' perceived level of intellectual maturity and preferred learning style have been successfully used by Harvey (1994) and Clarkeburn et al (2003) and Adamson, et al (2004) used questionnaires when studying the development of student time management skills.

Questionnaires are not without limitations, see for example Greimel-Fuhrmann and Geyer (2003). Whilst they can be useful in monitoring and evaluating the effects of curriculum change on student learning some studies have found that a significant proportion of students doubt their usefulness, thereby also affecting the reliability of the data collected. Additionally as with any questionnaire survey a compromise has to reached considering a balance between the comprehensiveness of the data and the questionnaire length. If the questionnaire is too long students will not complete it. It also has to be accepted that there is an element of student bias within any questionnaire, especially when students are required to conduct self-assessments.

Interactive class questionnaire: At the start of the second semester management accounting course students were polled for their responses to a variety of questions using a portable electronic voting system linked to a set of questions displayed in a PowerPoint presentation. Student's use hand held controllers their responses to questions are captured and histograms of the responses are projected onto the display. Questions clearly arise as to the validity of this data for research purposes, not least because of the potential for peer-group-influence and the interactive nature of the class: student's responses could be influenced by previous questions, response distributions and the presenters' comments. However positive factors include the extraordinarily high participation rate, 80 students registered at least one response (80% of the class) and almost all of these 80 responded to all questions (the lowest response being 76), and the fact that in this usage all students responses were anonymous: handsets were not registered to individuals.

Staff reflective diaries: The project's research design initially included data collected from staff (course coordinators and tutors/facilitator) through reflective diaries. Though some diary entries were kept by all staff involved these have not proved suitable for formal analysis, mainly because of their fragmented and inconsistent nature.

Reflective debriefing course team meetings. All the staff involved in each course team meet before and after each class session. A significant element of these meetings was the discussion of our reflections on the latest intervention, in addition to individual notes the project's facilitator / research assistant recorded minutes of these meetings: providing some additional validity of the data gathered.

The author's believe that this project's extensive use of qualitative, interview-based techniques and reflective approaches facilitates a more rigorous evaluation of whether this small group teaching approach helps develop an integral pathway to higher levels of students' employability skills, including the development of their intellectual maturity. The preliminary results reported below are based mainly on the, informal, analysis of the focus group transcripts, supported where possible by alternative data.

Preliminary results

In reporting this first set of results, it is important to include some student comments that illustrate their thoughts on the general issues surrounding skills at the start of the project. During the focus groups in the first semester, students were asked questions about what skills they thought they needed for university, whether they had the skills they thought they needed for university, and how confident they were in using the skills they had. Reviewing the student responses to these early questions details the baseline of student opinion and effectively sets the stage for subsequent, more rigorous analysis. The questions were delivered in a consistent manner across the focus groups by the educationalist, who managed the focus groups. The baseline of student opinion becomes quite evident when the transcripts are reviewed.

The employability skills, included in Table 1, reflect the research results of a number of studies on the nature of the perceived skills gap and the expectations employers and professionals have of tertiary education. (Arquero Montano et al 2001, 2004; Gammie et al 2002; Hassall et al 2004; Francis and Minchington 1999) Communication, presentation and team work skills are all considered important elements by these studies of a successful university career and crucial for a successful business career. The students in their early comments to a large extent seem to agree: *(In transcript quotes, S = student M=mediator-LTC)*

M: … so really they want to know a little bit about what sorts of skills you think you might need while you are here at Glasgow University. Any ideas of what sort of skills you are going to need to do your course?

S: …And also … mentioned the people skills that you need, because accountants, as well as doing the work, they also need to be able to interact with the people and communicate well.[Oct1]

M: Well if …you are not really saying whether you've got these skills. Which ones do you think that you might have already of that list we came up with at the beginning, so things like time management, note taking, essay writing, interpersonal, group work?

S: I think one of the biggest things with university is that it is nowhere near as structured as school was…[Oct1]

The first semester business statistics course required students to work in groups during the small group teaching, as well as for the required coursework. The students who made the comments above knew the coursework demands but had probably not started the coursework. The coursework was a computer based project to be completed in small groups. The students are recognizing both general and course specific reasons for communication skills, and the need to work in groups effectively.

From the start of the project, it is evident that the students were also very concerned with their level of confidence. They frequently mention confidence with respect to a specific task they were attempting at the time or in general terms specifying how important confidence is.

M: Do you think confidence or ability is more important?

S: I think you need ability in things like lectures and taking in and writing it down, but when it comes to like tutorials, you've got to be asking questions if you don't know the answer, you've got to ask the question. And if you don't have any confidence, you wont be able to do that, but if you don't have any ability and your got confidence you can ask as many questions as you want. [Oct1]

Students appear to consider either life or university can be survived by being confident without knowing a great deal. Again this may well be a function of their transition from secondary to tertiary education. Students obviously have experiences either in their social lives or from school of *perceiving* some individuals as being successful but not competent. A holistic approach to education would seem appropriate strategy to enhancing employability profiles and skills. Students also appear to judge their success and the success of others in an not entirely objective fashion. Again here are some of the student comments.

M: Do you think confidence or ability is more important?

S: You need both…you definitely need both. I've seen people who are totally incompetent, but are very very good at selling their ideas, and they will get away with it for a long long time. Obviously you need ability in order to be able to do the job, but *(if)* you don't have the confidence to show that ability, then nobody will ever notice. [Oct1]

Knowing and getting to know people seems to be very important to students. One student classes getting to know people as a skill.

M: How confident do you feel right at the moment about your skills for doing this course – that you've got the skills already?

S: Reasonably confident, because we come here and gone to class and stuff and met new people. Didn't know anyone when I came here, now I've got all new friends and stuff, so that's a good skill. [Oct1]

Knowing their fellow students appears to be not an indicator of communication or people skills but an indication of how worried students are during the transition phase from secondary to tertiary education. Being able to learn effectively, build skills and perform well seems to be a in part a function of how secure they are in their social setting. The students perceive knowing other students as being part of a successful tutorial or small group teaching.

There also seems to be a student need for basic study skills and note taking.

M: How confident do you feel right at the moment about your skills for doing this course – that you've got the skills already?

S: It would be quite good to learn how to take notes actually, because you are sitting in lectures and you are not really too sure…sure you are writing it all down, or what you should be writing down. [Oct1]

Along with considerations of their confidence, or lack of it, students apparently on the basis of these early responses recognized how important knowing what to do is so that they don't 'panic'. They seemed to enjoy working on tutorial assignments but preferred that work to include feedback for assurance and seemed to recognize work that they were more unsure of than others.

M: Ok you might remember from some of our initial conversations, especially perhaps the introductory one when we were in the Hunterian, that were here to kind of talk about the tutorials and what's kind of happening in tutorials, and I was just wondering what did you do? What have you been doing in the tutorials?

S: Once I knew what I was doing I thought it was quite good because I prefer when you're working on things and your learning than just being told information." [Nov1]

S: Yes, I was fine using it *(Excel).* The only bit I found difficult was at the end. You were supposed to write a couple of sentences or a paragraph on what the graphs could tell you and I found that bit difficult. [Nov1]

S: Well, you get feedback on it, which kind of takes the pressure off more if its not assessed because if that had been assessed as part of a grade or anything then I probably would have panicked because I didn't know what I was doing in the first place. [Nov1]

S: …because it was practice and we don't get a practice in anything else. We don't get practice coursework or practice essays in anything else, so it was good in that sense." [Nov1]

These remarks seem to indicate the students are concerned about the quality of their work in the absence of full instructions and prefer, having taken decisions about their problem solving work, to be given positive feedback that they have taken the "right" decision.

When reviewed together, the combined concerns about confidence (or again the lack of it) and not being assured that they have taken the right decisions about their work leads them to other decisions about the structure and purpose of tutorials. Doing work for the "right" reasons seems to be more important than investigating the subject specific topic covered in the tutorials. Students seem to suffer from short termism, as do other decision makers.

M: You haven't been preparing for tutorials?

S: I would actually prefer if the tutorials sort of related to what we are going to be asked in an exam type situation and stuff, like actually understanding the coursework. It does that sometimes, but other times its stuff that's not really relevant to what you are going to need for sitting an exam or something like that." [Dec1]

Students do recognize for the most part that University is different from school. However, they are at times unclear to what the differences are and how those differences may effect their university careers or the success of their performance. In a practical sense, they seem to be concerned with study skills and note taking. Not surprisingly, they have far less experience of lectures then perhaps academics realize.

M: How confident do you feel right at the moment about your skills for doing this course – that you've got the skills already?

S: Got the skills to cope with obviously my secondary school work, but whether I can transfer that to cope with the workload at university remains to be seen really …feeling confident… [Oct1]

As well as reporting the baseline of student opinion, the preliminary analysis of the transcriptions reveals a number of themes we feel are prominent in the focus group discussions. Student responses often moved beyond a direct response to the posed questions, and hence we feel a number of themes have emerged, which represent more complex issues than the opinions discussed above. The three themes of time management and work preparation, modelling, and learning to learn are discussed in the next section. The student responses on these themes should be considered in relation to the baseline student opinion introduced above.

Themes

Work preparation and time management

One prominent theme that emerged from the focus group discussions is the student's concern with time management. As the focus group sessions or interventions held in the first semester, where there were three sessions, moved to the second semester, where there was an another set of three interventions time management and preparing for tutorial assignments remained a concern. From analysing, albeit in a preliminary sense, the focus group discussions, the comments and references to time management are considered by the project team to be rather more complex than the students recognizing they need to maintain a diary and be on time. Time management or suggesting they do not have enough time to complete their work seems to be a *mask* for recognizing that they are unsure of what to do to complete a particular task and therefore do not allocate their time appropriately. Students also do not seem to recognize the importance of how effective small group teaching or lectures can be if they prepare ahead of time. If they don't know what to do or, more importantly, feel they have not been given precise instructions as to how to complete a task, they put off starting to investigate how they might complete the task or finding more detail on the instructions, like asking questions.

M: So you haven't been preparing for your tutorials, you mean…

S: Preparing a tutorial is absolutely pointless. That is only if you understood what you were/how you were supposed to do things…actually doing the work for it you didn't need to do. So it was more a case of whether or not you understood the material. [Dec1]

Not only do students seem unclear about the purpose and structure of tutorials, they don't seem to take the responsibility to work independently and make their own arrangements for independent study with other students.

M: Okay…would you have got together as groups outside [of the tutorial], if you'd been given the task before the tutorial?

S: Problem being that some in the tutorials don't necessarily know each other that well, so that makes it a little bit difficult. But yeah I suppose so, I mean if you actually even schedule any time…it doesn't even need a tutor there, but schedule a time slot where there is a room available for people to go and meet and work on tutorial stuff and so do some preparation work, then that would be useful. [Dec1]

Further students seem discontented with the reality that they have produced work that is not either covered or needed for the tutorial, as if the work completed has no other purpose than serving the tutorial.

M: so do you prefer the idea of having a two hour slot, or would you prefer a time beforehand?

S: Either or…I just feel that a bit more preparation in groups, like having it a little before or having a time slot, then you should know who you are dealing with and what you are meant to be doing, and what you are aiming for. Having the time before, as long as what we were getting told to do was actually covering it, I wouldn't really mind that, but apart from that…Well just basically that you prepare something that doesn't come up…So if they said, Go and prepare this and then you come into it…so wouldn't mind like going away… [Dec1]

Time spent preparing for work prior to tutorials also seems to be directly associated with motivation. At the start of the first semester course and at the start of the project, students were told that the tutors would be taking notes on how students were performing during the tutorials. The course documentation made no mention that the tutorial work would count towards their final course mark, but students were obviously still watching the tutor who was monitoring the students.

M: Okay, and do you think that you are being assessed on these skills…that you have been mentioning?

S: I was seeing the person taking notes on…and that's the first two weeks is that I might really have to prepare for this, spend quite a lot of time, and then I never see him doing anything, so the next couple of time I thought well I don't need to do as much if he is not going to like takes notes on preparations if… [Dec1]

Motivation and time spent are further remarked on when students connect the amount of independent study time spent on tutorial assignments and lectures and the benefit of that independent work.

M: And how much are you putting in after the lectures, are you doing anything?

S: Well my work tends…is just for the …If I sit down to do the workshop or tutorial, I tend to do that every week. I try to do the question, it does take about an hour at least…yeah. If you had to get the right answer at all…you definitely sitting for an hour, either staring at the page blankly or trying to do something, so yeah… [Feb2]

M: Okay, I'm just trying to get an idea of how much time you are spending outside the lectures on work…?

S: I would say maybe 7 hours per week most. I'll do the work for the tutorials and the workshop say probably 4 hours a week just in management accounting, then maybe an hour for stats, just ….work, may be half an hour for finance if anything. The tutorials for that are a bit useless so….Economics I will generally spend about an hour on, and then if for any reason I have missed a lecture during the week, then maybe I'll do a bit of reading, but tend to just amalgamate that in with any tutorial workings stuff...like 6/7 hours. [Feb2]

Finally, towards the end of the second semester what they need to do for their university work becomes clearer to them and the pressure of time management starts to wane, although they may be spending more time working towards course requirements and studying independently.

M: Okay, something that the course team were wondering was whether you felt that your approach to your learning or your learning styles had changed since you came to university.

S: Yeaaah…You have to do sooo much more on your own and just sort of almost set yourself your homework and things like that, that you were getting set and you just have to have so much more self motivation, especially reading. So boring. [Feb2]

M: How's it been going?

S: I think its been going quite well actually. I don't think the workload's really increased. I think you're probably just more knowledgeable about what you're expected to do, so you maybe put in more work with the likes of the tutorials and the workshops, whereas at the start I think most people were really wondering what was expected of us and really didn't do as much preparations as they might have done. [March1]

So, if university education is characterised by independent learning, this is an indication that it is not necessarily the number of hours or the scheduling of those hours that students are concerned about, but the assurance of knowing the parameters of what they need to do for their courses and the associated confidence that comes with it, an issue discussed in more detail below.

Modelling

Within the initial project design there were three specific modelling skills that were to be addressed:

- Model building: choices and application
- Model building: processes and evaluation
- Searching for alternatives / solutions

The importance of a modelling approach was inherent in the lectures and other classes of the course, being a process that is used extensively in both statistics and management accounting and the terms "model" or modelling" being a common part of the vocabulary of both lecturers. Further, nine of the explicit tutorial E-Skills learning objectives included references to models or modelling.

It was therefore surprising, and disappointing, that in response to the prompt

M: … do you think that the tutorials are covering skills like modelling alternatives and formulating problems?

Students in one focus group responded

S: What are modelling alternatives? [Feb1/110]

and in the second focus group a similar prompt lead to

S: What do you mean by models?[Feb2/126].

In the first focus groups the student was re–prompted

M: So do you think you are covering the skill of formulating problems as well as solving them? or …

and the student response was

S: Don't know. I don't understand what you mean…. [Feb1/111].

Clearly, it appears that these students fail to recognise the terminology with this context, but the transcripts also indicate that their understanding of the importance of the ideas and skills here is weak. Independently two focus groups reveal (on further prompting) that students seem to think that the idea of modelling alternatives may be about examinations:

S: ….Is that like maybe presenting your answer in a different way? [Feb1/110] and
S: You mean how you lay out your question / answer….? [Feb2/126].

Both these statements suggesting an instrumental focus and a shallow understanding of the modelling concept equating it more to searches for presentation "formats" rather than models of the underlying reality of the problem or situation.

Learning to learn: responsibility, attitude and confidence

One of the groups of employability skills considered as important in this project was a group of the "higher level" employability skills that might be collectively labelled "learning to learn". The most important skill in this group probably being 'taking responsibility for own learning', closely followed by both the development of intellectual maturity - the move from dualistic notions of reality, where questions tend to be seen as having clear "right" and "wrong" answers towards multiplistic and relativistic positions (Perry, 1970) - and contextual learning: learning from cases and the real world.

In relation to responsibility two principle questions were asked in the questionnaire surveys,

Table 3: Responsibility Survey Questions		**September**		**January**		**May**	
a)	**My job as a student is:**						
A	To accept the information given by the lecturer without question and learn it.	0	*0%*	0	*0%*	0	*0%*
B	To accept that some responsibility rests on me for learning, but I am not sure what is expected of me about what or how to learn.	4	*20%*	5	*21%*	1	*15%*
C	To accept what is given, but to think about it critically, to check other sources for myself and to take responsibility for what and how I learn.	16	*80%*	18	*79%*	6	*85%*
		20	***100%***	**23**	***100%***	**7**	***100%***
b)	**I think the lecturer's job is:**						
A	To give me all I need to know for the exams, but where there is more than one way of looking at things the lecturer should indicate clearly which way he prefers.	0	*0%*	3	*13%*	0	*0%*
B	To provide me with information but I realise that he is not the only source of information and that I can find out things for myself to supplement what the lecturer has given.	19	*95%*	20	*87%*	6	*85%*
C	To give me all I need to know for the exams and to avoid any extra non-examinable material.	1	*5%*	0	*0%*	1	*15%*
		20	***100%***	**23**	***100%***	**7**	***100%***

It is notable that almost all these responses indicate that students accept responsibility, at least to some degree for their own learning: a message that staff have been giving to students since the degree induction lectures. As one focus group student comments:

S: So if you didn't turn up, your loss, you don't learn from it." [Mar1/139].

In terms of this project the real question is to what extent this is a change from when the students were at school. A clear example of the expectation of difference is expressed in the first focus group:

S: I think one of the biggest things with university is that it's nowhere near as structured as school was. At school you are very much led by the hand … whereas at university, you are given a lot of information, and there is a lot of additional reading you can do on top of that, so you have to manage what you want to look at ... [Oct1/2]

Another focus group dialogue also suggests a change here:

S: I would probably like discipline because as I was sure doing the Highers [public exams] I was just really lazy when it came down to it. I was just….always find something that would jus preoccupy my mind all the time…and then basically there was a mad rush at the end.
S: Exactly the same.

You don't really know because you've never been to university, but the skills I got them through school, but it's a different kettle of fish when it comes to university.

M: In what way?

S: Take on responsibility in lectures and actually write something down, whereas at school you could get away with not listening, probably colouring in at the end.

S: … I don't think you should be like forcing you to do everything, but it would be up to yourself as well to….I don't know, I think you've got a blank student learning something….

M: Service….

S: Yeah.

S: You need to learn your skills for yourself I think. [Oct2/11-12]

This dialogue illustrates not only that students attitude at school was largely passive but also that they have perceived a need to change their attitude. A dialogue later in the year reinforces this.

M: Okay. Something that the course team were wondering was whether you felt that your approach to your learning or your learning styles had changed since you came to university?

S: Yeaaaah….You have to do sooooo much more on your own and just sort of almost set yourself your homework and things like that, that you were getting set and you just have to have so much more self motivation, especially reading, so boring.

S: And finding them realising …?…meant to be doing… (Overlap Ss)

S: Gradually getting there. I think I'll need to speed up sometime soon.

S: Yeah because like here I'm probably working every day or every couple of days sort of extra work just so I know what's going on, but at school I never did anything, like three weeks before the exam, then start going back to the start and going through it all and that worked okay. But the work here I don't like, and I just sort of figured that out now. I think it's especially difficult … [Feb2/118]

The students here display a range of attitudes but indicate that whilst accepting some responsibility are finding some aspects of the change problematic. As a different student (at the same time) indicates:

S: "Obviously you need to do more stuff yourself, but I feel he should include that in his lecture notes as well." [Feb1/110].

An interestingly contradictory statement: accepting responsibility to do "more stuff yourself" but wanting the lecturer to take, or at least share, responsibility by putting it in the notes.

In terms of Perry (1970) type intellectual maturity the formal questionnaire data (see Table 4) quite strongly suggests that many students are not dualist, either in general terms (questions a and b) on in relation to their view of accounting (questions c and d), and that responses suggest a split between multiplistic or relativistic attitudes (though there is variation over time). These results are a surprise as anecdotally it is common for staff to report that students, especially first years, are predominantly dualist: seeking "correct answers", displaying an unwillingness to accept that problems may have multiple or alternate solutions and showing frustration by the lack of clear unambiguous answers to many issues. The interactive class questionnaire administered in January, with almost 4 times the response rate, does however suggest the formal questionnaire results are at best biased: this survey indicating that 14% of the students were happy to select the dualist preference to a single "Perry type" question (a), against 0% or 5% in the formal questionnaires. However, the results to another question in this interactive survey provide much stronger support for the staff perceptions that students show strong dualist tendencies, at least in their study of accounting. Students were asked to respond to the statement "I like accounting because it has rules": 53% (of 77) responded yes against only 29% responding no (18% responding don know, who cares or accounting doesn't have rules). This clearly suggests that a high proportion of the students like to think of accounting as dualistic in nature.

From the focus groups we hear students expressing that they have changed their approach to learning and understanding. The comments above about the difference between school and university illustrate that point, additionally:

S: I think I'm getting my head round it now. He wouldn't….whenever I think of anything now, I think, you know don't just think about one thing, you think oh it could be taken from this angle and so on. So even in that way it's taken…you know it's kind of taken skill to learn from employability type skill you know….You know if you are going into sort of accounting profession….Well if you're dealing with financial accounting, it's all like straight debt rules and

so on, but even if you were doing financial accounting and so on…sort of stuff I've learned from management accounting is…you know, take ideas going round from different angles and so on. So it's quite good to think I've actually taken that and using it in other things, not just management accounting. [Feb1/110]

So not only has the student realised the need to accept less dualist modes of understanding and recognised that some subjects are less "straight" than others s/he has also been able applying this more mature approach to other disciplines. A piece of focus group dialogue shows the perceived differences over time and between subjects:

S: … Very different approaches to the subject between the different classes…
S: …Yeah…
S: Management accounting XXXX is very much, to do well we need to understand that every nuance about this subject, and we are really going to test you which I mean really should be the way because that's the only way you actually understand that stuff, rather than just learning it by rote, but with some of the other classes like ZZZZZZZ last year, it was too simplistic. I mean even…I mean even….I mean I'd never done any sort of ZZZZZZZ or anything before and I slept through the first semester and still got a very good mark. And…yeah…it's quite interesting to see the difference in the amount of work to do for management accounting. [Feb2/119]

Another student says:

S: I don't know. I think the problem is that school system at the moment, sort of learning to pass. That's where we sort of get the bad problem solving and learning to learn skills from, but the way they can improve it is….I don't really know, but they are basically learning to learn is you know you have the knowledge of the subject opposed to memorising the answer, and problem solving is, you get a certain question, and in your mind some people have the (background noise/overlap)….the procedure already, and em….whereas problem solving you need to adapt and be able to take different routes around a positive script line one method, you can't do that with … [Jan2/101….] I think all these things you learn from experience more than anything. … Aside from that I can't really I can't see any way of improving how to learning to learn. It's all about just understanding the subject, rather than learning parrot fashion. [102]

In addition to expressing some of the important aspects of moving towards multiplistic and relativistic levels of intellectual maturity and the need to adopt "deeper" learning strategies, this quotation illustrates that the student understands the importance of contextual learning (learning from cases and the real world) by reference to the need to "learn form experience".

There are indications in the questionnaire data (Table 4) that some students find this move away from dualistic notions of understanding uncomfortable, as predicted by Perry (1970): in response to the statement about the nature of knowledge (a) the data shows an increase in the number of students selecting the option that includes the statement about feeling uncomfortable about uncertainty. There is also a moderate increase between September and January (and a further increase to April: thought the sample size is very small) in the number of the students who express a degree of confusion caused by the variety of ways at looking at accounting subjects (d).

There are some focus group comments that seem to illustrate this change. In an early focus group a student notes:

S: Once I knew what I was doing I thought it was quite good because I prefer when you're working on things and your learning than just being told information. [Nov1/23]

The fist part of the statement indicating comfort and confidence, once s/he knew what s/he was doing, and, incidentally, also indicating a preference for learning through action/experience (rather than being taught didactically). Clearly at least some students see confidence as important:

M: Do you think confidence or ability is more important?
S: Ability, because by doing well then that brings confidence.
S: You need both….you definitely need both. I've seen people who are totally incompetent, but are very very good at selling their ideas, and they will get away with it for a long long time. Obviously you need ability in order to be able to do the job, but if you don't have the confidence to show that ability, then nobody will ever notice you. [Oct1/5]

And in another group:

S: Confidence, because you need confidence in yourself to be able to do things right, because usually if you don't have confidence in yourself, then you back away a bit, when you are doing things, saying 'Ah that's just not good enough', and go like 'good' with the next piece of work.

It is therefore clear that students see confidence as important, and enabling.

In one later focus group the transcripts show an extreme degree of discomfort with the notion of the existence of different approaches for any problem:

S: …. That [taking different approaches] scares me, because I'm confused enough by the first one, then there is all these other ones you can do….[Feb2/127].

Another piece of dialogue from semester 2 illustrates one of the causes of this discomfort:

M: Okay, well this idea of there being no right and wrong answers, are you happy with this issue of having to make the choices?

S: I don't know…like for me I think there is total lack of confidence. Just go ahead and put answers in, like you kind of think you hum and haw for ages. Like was that really right….?

S: …But then they say there is no right answer, or you've just got to make assumptions and just try and get to an answer and stay at what you assumed, but the you go into tutorial and he'll say, 'What did you get?', and you'll say, 'No, I'm wrong'….so we are just totally contradicting ourselves. [Feb2/122]

Here we can see that the lack of confidence relates to the need to make choices, as Perry's model shows: the move towards multiplistic notions of reality, and the need to make and justify choices, being associated with a drop in confidence.

Yet other students show a degree of acceptance of uncertainty, for example:

S: It's [multiple solutions presented to class questions] kind of like opened my mind up more. Before when I used to do a question I'd say, that's the answer, argue about it, but as soon as you get the answer you think, but what if you add this or if you add that, so sometimes you get worried – you could end up writing something like 8 answers for the same question or something. I think it's ok because he [the lecturer] says as long as you write down a viable explanation as to the assumption you've made, you get marks for it obviously, unless it's a really stupid one. If you kind of argue for the assumption you've made then you should get marks for it. Maybe not all the marks, but you might get a bit of the marks rather than just writing down things without explaining why you've used those figures. [Mar1/137]

Perhaps this is due to the Perry model prediction that moves into the relativistic sphere are associated with increases in confidence, though another reading of this might indicate that some of his/er comfort with the notion arises from his/er perception of how assessments are going to be marked: which may be a worrying reference to an instrumental (shallow) approach to learning.

Table 4: Nature of Knowledge / Accountancy Survey Questions		**September**		**January**		**May**		**January Interactive**	
a) I think that knowledge is:									
A	A collection of unchangeable facts which are either right or wrong. I dislike uncertainties and vague statements. I am uncomfortable if I am asked to think for myself. I prefer to be given the facts.	1	5%	0	0%	0	0%	11	14%
B	Complex and by no means black and white, but I find this exciting and stimulating. It makes me want to explore things for myself.	14	70%	9	40%	2	28%	34	42%
C	Not just a collection of black and white facts but that there are shades of grey. Things may be right and wrong depending on the circumstances and the context. These uncertainties make me feel uncomfortable.	5	25%	14	60%	5	72%	36	44%
		20	**100%**	**23**	**100%**	**7**	**100%**	**81**	**100%**

b) My job in my exam is:									
A	To give back the facts I have learned as accurately as possible. I prefer questions with single clear cut answers rather than open long questions.	3	15%	8	35%	2	28%		
B	To answer the questions including what I have found out for myself from reading or other sources. I dislike questions which force me into a fixed answer (such as multiple choice)and prefer open questions in which I can have room to show my own thinking.	9	45%	11	48%	2	28%		
C	To give back all I know about the topic and leave the examiner to give me credit for the relevant bits. I quite like open ended questions which allow me to show how much I know.	8	40%	4	17%	3	42%		
		20	**100%**	**23**	**100%**	**7**	**100%**		
c) A good thing about accounting is the fact that everything is so clear cut, either right or wrong:									
A	Agree	6	31%	4	17%	3	43%		
B	Disagree	13	68%	19	83%	4	57%		
		19	**100%**	**23**	**100%**	**7**	**100%**		
d) There seems to be so many ways of looking at accountancy/ finance subjects, I feel confused about what is right and wrong.:									
A	Agree	3	15%	8	35%	5	72%		
B	Disagree	16	85%	15	65%	2	28%		
		19	**100%**	**23**	**100%**	**7**	**100%**		

Concluding Remarks

This paper reports on a project to introduce employability skills into the curriculum of the first year of an accounting degree, via the adaptation of existing and the creation of new small group teaching interventions in the compulsory level one courses management accounting and business statistics. Students' perceptions have been collected, which provide a unique information set on the develop of this skills based teaching, including data gathered using a focus group methodology. The main focus of this paper is a preliminary analysis of that information.

The analysis shows that students are aware of certain aspects of the employability skills agenda, and are concerned with the skills they possess, however, they appear unclear about the role of these skills in their university education. The analysis starts with a presentation of a number of examples that illustrate students' views on the skills agenda as they start their degree studies.

A number of themes have emerged from the preliminary analysis: three that have come to the forefront of the analysis are time management and work preparation, modelling and learning to learn. These themes seem to represent the complexity of the skills agenda and the surrounding issues. Time management appears as a common thread in students perceptions, yet this seems to be a mask for students being unclear about the parameters of their required work and their inexperience or possibility inability to study independently. Evidence suggests a second theme: that their experience in using modelling processes to approach problem solving is minimal, and they are unsure of what the modelling process is fundamentally about, or what the impact of applying one or more of several appropriate models might be. Lack of students' confidence appears important in both these themes. An issue that links to the final theme: learning to learn. In this respect students seem, particularly at the start of the year, not to focus on learning to learn nor recognise how this is an important element of their employability profile and skills development. There is, however, some evidence that by the end of the academic year students are starting to recognize the importance of being

responsible for their learning. These are important findings, that have significant potential implications in Accounting Education.

The project team recognise that there is more work to do in developing curricula and learning and teaching approaches to enhance employability skills. Two level one courses were involved in this project. The analysis suggests, not surprisingly, that ideally the employability agenda should encompass a wider base of courses and cover a longer period. Two courses in one academic year does not appear to allow students enough time or space to build an effective skills profile, but that it is possible to achieve some success even in such a limited implementation, looking at just small group learning and teaching on these courses.

A major issue in the design of specific skills learning interventions appears to be ensuring that students are adequately informed of the skills agenda and how it applies to them. A lack of knowledge here appears to hamper their motivation and efforts to look to their future skills profile. The design difficulty here is how to provide sufficient information and instruction without destroying students skill development: making tasks too structured (easy) inhibits learning from experience.

The results, albeit preliminary, rest largely on the strengths and weaknesses of the focus group methodology, and the project team recognise the importance of the management of this methodology. There are, however, some basic questions to address about the focus group methodology adopted here that need more research attention. Issues of representativeness and self selection bias need to be considered, as well as, an analysis of the student cohort across the two courses. The focus group comments were clearly dependent on the questions posed by the mediator, these were delivered in a consistent fashion across the groups. The transcripts are therefore amenable to more formal rigorous coding and analysis, which is the next stage of this research.

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