

Accounting for the future: more than numbers

A collaborative investigation into the changing skill set for professional accounting graduates over the next ten years and strategies for embedding such skills into professional accounting programs.

Volume 2

Strategies for embedding non-technical skills into the accounting curricula

By: Professor Phil Hancock (Project Leader), The University of Western Australia; Associate Professor Bryan Howieson, The University of Adelaide; Associate Professor Marie Kavanagh, The University of Southern Queensland; Dr Jenny Kent, Charles Sturt University; Associate Professor Irene Tempone, Swinburne University of Technology; Dr Naomi Segal (Project Manager), The University of Western Australia.

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Introduction

Volume 2 documents the strategies collected as part of the *Accounting for the future: more than numbers* ALTC study. The project team distributed a survey to all 38 public universities seeking information about how non-technical skills were being developed and assessed in all the relevant subjects required for accreditation by the professional accounting bodies. Further, respondents were invited to share with the project team initiatives they had implemented for the developments of these non-technical skills.

After consultation with contributors, the strategies described in this volume are described in a common format that illustrates the strategy, non-technical skills addressed, learning and teaching rationale, assessment methods, length of time being used, and any evidence of success plus contact details of the author. However, the format of the presentation has been varied where contributors were not able to supply all details.

These strategies are available for others to adopt in developing non-technical skills. Authors who have provided details are willing to be contacted about the strategy. We are indebted to all contributors for sharing their strategies and contact details. At the same time, we are aware that the strategies described here do not represent all that is being done in developing non-technical skills in professional accounting programs across all Australian universities. We hope that those who, within the timeframes of our study, were unable to provide us with details of the strategies they use, will share their knowledge by contributing such information to the ALTC Exchange.

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Strategy 1: Joint in-class preparation

Strategy in brief: This is a strategy to improve preparation and learning from participation in tutorials in a mandatory 3rd year auditing unit in the UWA Business School. The course is coordinated by Michele Leong.

Non-technical skills aimed to be enhanced or developed by strategy:

- Communication
- Planning and organising
- Problem solving
- Teamwork
- Time management

Learning and teaching rationale: The pedagogic assumption underpinning this strategy is that jointly preparing to answer challenging tutorial questions will enable students to maximise their learning, improve their teamwork skills and exceed their individual ability to solve problems. The expectation is also that, as a team, students will feel less daunted by the challenge of the tutorial problems, will be more productive, and that their individual participation in tutorials will increase, enabling them to improve their communication skills. Joint preparation out of class prior to each tutorial is also intended to enhance planning, organising and time management skills.

Details of learning and teaching strategy:

The strategy is used in Auditing (ACCT3322) in the UWA Business School at The University of Western Australia.

Level to which strategy is applied: Auditing is a 3rd year mandatory unit in Bachelor of Commerce (Financial Accounting).

Student population: 350.

The strategy: The weekly tutorial problems are intended to challenge and extend students. Students organise into teams within tutorial groups. The tutor appoints a leader for each team. The leader is responsible for ensuring that his/her team is prepared to discuss the assigned question each week. The leadership role is not rotated but remains with one student. Students prepare answers to assigned tutorial questions individually. For the first 15 minutes of the tutorial they discuss specified questions in their teams in preparation for the class discussion. For the first class student teams prepare their answers to the tutorial problems together and out of class.

Assessment of learning related to strategy: Students receive a team mark for the tutorial participation to which adjustments may be made at the end of the semester.

How long the particular teaching strategy has been in use: One semester

Role of ACCT3322 in Bachelor of Commerce (Financial Accounting): The unit introduces students to the principles and practice of auditing. It is designed to enable students to learn the theoretical concepts surrounding the audit function and to gain an overview of the audit process. The unit deals with the various stages of the auditing process and examines some of the more important processes in detail. Auditing is an inter-disciplinary subject in that it draws upon students' knowledge and understanding of company law, financial accounting, management accounting, accounting information systems and taxation. The course aims to lay a foundation for those students who will proceed to an audit working environment by enabling them to apply and build on the concepts learnt in this unit. Students who do not wish to enter public practice will nevertheless gain an appreciation of the audit function and its important role in the business and information arena.

1 x 2 hours lecture per week

1 x 1 hour tutorial per week

Assessment:

Mid Semester Test	40%
Final examination	50%
Tutorial participation	10%

(A team mark to which adjustments are made at the end of semester).

Essential texts:

Leung, P., Coram, P., Cooper, B.J. (2007). *Modern Auditing & Assurance Services*, 3rd ed., Milton (Qld), John Wiley.

The Institute of Chartered Accountants in Australia, *Auditing and Assurance Handbook* 2008, Volume 2. Australia: Milton (Qld) John Wiley.

Evidence available for merit and success of strategy:

1. Students have volunteered that they enjoyed jointly preparing for tutorials and that they learnt more as members of a team.
2. Tutors reported anecdotally that participation in tutorials has improved.
3. Compared to previous semesters, the quality of answers to theoretical questions in the final examination suggests improved understanding of theoretical concepts.

Strategy 2: Interactive and engaging in program learning

Strategy in brief: This teaching strategy is used with large groups in a first year unit at The University of Queensland to connect in-program learning to practice by tightly aligning unit elements (lectures, tutorials) better with learning activities and with non-technical skills development and by making unit elements more interactive and engaging. The unit is Introduction to Management – MGTS1301 – and is taught and coordinated by Dr April Wright.

Non-technical skills aimed to be enhanced or developed by strategy:

- Communication
- Initiative and enterprise
- Planning and organising
- Problem solving
- Self management
- Teamwork

Learning and teaching rationale: Introduction to Management (MGTS1301) is particularly important to accounting students at The University of Queensland as through this unit they are expected to develop or enhance many non-technical skills. The challenge was to redesign an existing unit so as to create a tight connection between in-program student learning and practice. Based on preliminary work done by the unit coordinator (see below), the unit elements (e.g. lectures, tutorials) were refined and better aligned in order to provide students with learning activities that worked more effectively together to enhance their experience, knowledge and skill development. The unit, as redesigned, covers the same material (that is, the same number of chapters of the text) as before it was redesigned, but learning is deeper and consolidated around the core. The pedagogic assumptions of the redesigned unit are:

- (i) to achieve a connection to practice, it is necessary to identify and map
 - a) the core knowledge and core skills each lecture topic intends to develop
 - b) the connections between lecture topics
- (ii) contemporising problems and case studies used in lectures and tutorials creates a connection to practice and enables students to better engage
- (iii) interactive lectures enable deep learning
- (iv) scaffolding levels of independent analysis and application of theory enables deep learning.

Details of learning and teaching strategy: In designing the course so as to achieve the connection between in-program student learning and practice, the unit coordinator first identified the educational goals of the unit within the core of the Bachelor of Business,

Bachelor of Business Management and Bachelor of Commerce programs. These goals were

- (i) content knowledge (fundamental terms, concepts and theories that underpin the field of management)
- (ii) skills in application of knowledge (students needed to develop the ability to apply their knowledge of theory to 'real life' experiences)
- (iii) skills in communication (students needed to develop competence in written and oral communication from a broad business perspective)
- (iv) general scholarship (familiarity with academic management literature and the ability to search for and locate suitable reference material)

A command of the subject matter is integral to being able to redesign the unit so as to achieve goals (i) and (ii).

In the second stage of redesigning the unit, the unit coordinator identified core knowledge and core skills that each **lecture** topic intended to develop. As taught now, each lecture begins with a set of objectives which clearly communicate what content students are required to learn and at what level of cognition (Identify? Describe? Compare? Evaluate? etc). The number of slides per lecture has been reduced, as has the content on each slide. The slides provide the structure of the lecture, core ideas and the principles that are at the centre of the topic, but do not reproduce the content of the set texts. The lecture slides function only as the 'skeleton' on which 'flesh' is added during the lecture. This approach encourages attendance and avoids lectures becoming a 'content dump'.

The skeleton slides are posted to Blackboard one week before the lecture. The 'flesh' added during lectures, which often requires further research by the coordinator, includes practical examples from real companies to deepen students' understanding of core theoretical concepts and to build an appreciation that the relevance of management theory lies in its application. Examples are current, and do not appear in the textbook or the skeleton slides released to students via Blackboard. The 'flesh' of the lecture also consists of building connections between the weekly topics so students can understand how the topics fit together as building blocks of introductory-level knowledge and why such knowledge is core, which means students are more likely to take this knowledge away with them when they move on in their program of study.

All lectures are two hours long and interactive. Activities are closely connected to key concepts students are required to understand at a deeper level. Activities may include simulation, role playing, rank ordering or discussion questions. They occur every 20 minutes or so, when the lecturer presents a discussion question to the students. In general, in the first instance, students discuss the problem in twos, that is, with the student they sit next to; then, depending on the activity, they may form bigger discussion groups to provide their answers publicly or otherwise carry out the task. As the discussion questions and examples in the lecture slides draw on current or topical events, students

tend to engage with them. Students are free to move around during the lecture. The lecturer also moves around, thereby reducing the physical disconnect between lecturer and students that often arises because of the design of lecture spaces.

The purpose of the activities is primarily to stimulate higher-order cognition or deeper learning by encouraging students to become actively engaged during the lecture rather than being passive receivers of content, and to stimulate curiosity, independent learning and critical thinking in a large class setting.

The activities also provide an opportunity for social interaction, which promotes a sense of being part of a community of learners and overcomes feelings of isolation from staff and other students common to students in large class settings (Gibbs & Jenkins 1992). The activities also provide a natural break to match student concentration spans and obviate the need for a time consuming mid lecture break.

Examples of activities are:

- Rank-ordering in the lecture on Strategy. The lecturer presents a list of companies of which Nokia is one. Students are asked to order the companies chronologically by foundation date. Students usually assume that Nokia, because it is part of the telecommunication sector, must have been founded recently. The astonishment moment when they discover that it was actually founded in 1865, sets up the lecture to talk about notions of competitive advantage and strategy evolving over time, about the opportunities identified in the external environment that allow a firm to position itself, etc.
- The innovation lecture was presented during the Beijing Olympics and included an analysis of the innovation process involved in the development of the Speedo LZR fast-suit to explain why 89 % of swimming medals had been won by swimmers wearing that particular suit. The discussion question required students to identify companies from statistics relating to the Olympics.
- A lecture on ethics includes short, relevant cases presenting situations. Students are asked to assess the ethics of the situation as if they were in it, and to identify the ethical principles that apply.

A small number of 'Tool Box' sessions run by an associate lecturer assist students to develop generic library database search skills and assignment writing skills, consistent with educational objective (iv).

The tutorial program was redesigned around case study analysis. By encouraging students to apply the content they learned to a practical business situation, analysis of case studies integrates the tutorials with the lectures and facilitates achievement of educational objective (ii) – to enable students to develop skills in application of knowledge. The questions and answers addressed in tutorials target the concepts and theories that are the core of the week's lecture topic.

The tutorials are one hour long. Students receive a unit reader that contains the program for each week. Just as the lecturer led in terms of demonstrating how to apply theory to a case or scenario, for six weeks of tutorials tutors lead students during tutorials to demonstrate how to apply theory to particular case studies.

In the five weeks following the sixth week of tutorials, groups of five students each present independent analyses of case studies assigned to them. Each group presentation is about 20-25 minutes long. Groups are expected to address five questions in relation to each case study. The last of these is always the same: 'What other social and ethical issues or what other management issues apply to this case? This final question allows students to revisit any other theory that has been taught in the unit to see how it might be applied to the case. This question also prepares students to analyse the new case study of the final examination. Each member of the presenting group is required to participate. Whereas some student groups distribute the five questions to their members – one to each- the best presentations are those in which students integrate their work and present a more holistic analysis. (Tutors prepare students for presentations, alerting them to matters such as transition across to speakers, how to introduce oneself, pacing, etc.)

During the remainder of the tutorial, the class as a whole is required to address the five general discussion questions relating to the presentation to ensure engagement and participation. The scaffolding process of demonstrating during lectures and six consecutive tutorials how to apply critical thinking skills to a business scenario is intended to engender confidence in students when practising these skills in the remaining tutorials and examination.

The mark for the group presentation at this stage is a single group mark, on the assumption that the group or team work is also intended to develop team work skills. However, peer assessment is an option available to groups that have a 'free-rider' or similar problem. The unit coordinator is currently considering switching to assess by way of an individual and a group component so as to better capture excellent performances reduced by other group members' performance.

To achieve consistency in the tutorial program, the unit coordinator produces detailed guidelines for teaching each case study, holds meetings with the entire teaching team to communicate the educational goals for the unit as a whole and for the case study approach of the tutorial program.

Level to which strategy is applied: The strategy is applied in a first-level unit in the core of the BBusMan, BBus and BCOM programs.

Student population:

Semester 1: ca 800 students at St Lucia, ca 100 students at Ipswich;

Semester 2: ca 400 students at St Lucia, ca 50 students at Ipswich.

Over summer: ca 100 students.

Assessment of learning related to strategy:

Case study (Review of Management articles) assignment (individual mark)	20%
Assessment of in-tutorial group presentation (group mark) (Assessment focuses on content, depth of analysis, critical judgment and critical thinking skills, presentation skills, e.g., oral communication skills. See Appendix 1 for assessment criteria).	15%
End of semester examination (a series of questions that address the content covered as well as a case study. Students receive the narrative of the case study a week before the exam. Students are expected to demonstrate deep learning in their analysis of and application of theory to this case study which is a business scenario).	65%

How long the particular teaching strategy has been in use: One year.

Role of Introduction to Management (MGTS1301) in Bachelor of Commerce and Bachelor of Business Management programs:

To enable students to develop foundation understandings in general management, including basic management theory and key concepts, to take into the rest of the program, along with knowledge of some important management principles and practices (e.g. leadership, strategy).

Unit elements

1 x 2 hour lecture per week

1 x 1 hour tutorial per week

Assessment in unit overall: As above in ‘Assessment of learning related to strategy’.

Essential texts:

Campling J, Poole, D, Wiesner R, Ang ES, Chan, B, Tan WL & Schermerhorn, JR 2008, *Management, 3rd Asia-Pacific ed.*, John Wiley, Brisbane (Qld).

MGTS1301 Course reader.

Evidence for success of strategy

1. Good attendances at lectures and tutorials including for lectures scheduled at normally unpopular times
2. Greater student engagement observed in lectures, though there is a difference in the extent of engagement and the quality of the solutions between second and third year students attending an evening lecture delivered in smaller lecture theatres and students attending lectures in bigger lecture theatres. In the larger theatres, there is a need for some leading by the lecturer and a greater requirement on the lecturer to

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move between the groups; though students in the larger groups indicate they enjoy the activities and participation.

3. Substantially improved final examination results in Semester 1 than in the past: better grade distribution than in the past, 8 per cent 7s, 20 per cent 6s, better quality answers illustrating deep learning
4. Lecturer effectiveness ratings rose for the larger classes from 3.8 and 3.6 to 4.4 on a five point scale and to 4.7 in smaller classes.
5. Unit evaluation rose from 3.6 to 4.0, meaning that each individual lecturer rose from 3.8 to 4.4.
6. Positive feedback from students in the form of spontaneous e-mails and as part of formal evaluation processes included statements that they enjoyed the unit, found it interesting, appreciated the relevance of the questions set, the familiarity of the examples used and that this method of teaching leads to deeper understanding of the core concepts.
7. Impressionistic evidence that the staged requirements (availability of lecture slides ahead of time, activities in lectures, and the scaffolding of learning to apply theory and concepts from lectures through to tutorials and final examination) leads to more preparation and reading by students.
8. The Unit coordinator won a School award for Undergraduate Teaching Excellence for the redesign and teaching of this unit.

Challenges

- International students do not like being singled out in lectures.
- There is an increased workload initially when setting up the unit. In the long term, it involves less work and is more enjoyable to teach.

References

Gibbs, G & Jenkins, A 1992, *Teaching large classes in higher education*, Kogan Page, London.

Ramsden, P 1992, *Learning to teach in higher education*, Routledge, London.

Appendix 1

a) Marking sheet for case study presentation

CASE STUDY PRESENTATION

GROUP NO:

CASE STUDY TITLE:

GROUP MEMBERS:

CRITERIA	MARK
Knowledge of management (2 marks)	
Level of insight into practical issues presented in the case	
Critical judgment (8 marks)	
Level of conceptual understanding evident in the answers to the case questions	

Ethical and social understanding (2 marks)	
Appreciation of ethical and social issues in the case study presentation	
Communication skills (3 marks)	
<p>Organisation of presentation (e.g. logical structure, transitions between speakers)</p> <p>Ability to sustain audience engagement (e.g. pacing, audibility, use of humour, use of visual aids, use of handouts)</p>	
TOTAL MARK/15	

(b) Marking sheet for individual written assignment

MGTS 1301: INDIVIDUAL WRITTEN ASSIGNMENT

Knowledge of management (8 marks)	
(i) Use of appropriate journal articles and appropriate referencing (2 marks)	
(ii) Demonstrated understanding of the management theory contained in each journal article (3 x2 marks)	
Critical judgement (9 marks)	
(i) Extent to which the student has gone beyond mere description and critically analysed the content of each journal article (3 x 1 marks)	
(ii) Degree of critical thinking evident in the conclusion regarding evolution of management thought i.e. evidence of a well-reasoned argument (3 marks)	

(iii) Level of understanding evident in the application of management theory to contemporary organisation (3 marks)	
Communication skills (3 marks)	
(i) Organisation of report: appropriate use of sections and headings; inclusion of title page (1 mark)	
(ii) Quality of writing, including spelling, typos and grammar (2 marks)	

Strategy 3: Integrated first year units

Strategy in brief: This is a tightly integrated program delivered in first year units of the accounting program in the School of Accounting and Corporate Governance at the University of Tasmania, and characterised by:

- (i) small-group learning environments
- (ii) lectures that provide in-class activities and emphasise interaction and application rather than content alone
- (iii) workshops, central to the program, which enable students to solve problems assisted by academic staff
- (iv) tutorials that are interactive and make extensive use of group work

The program is complemented by an elective corporate internship program requiring students to work either one, two or five days a week over the semester.

Non-technical skills aimed to be enhanced or developed by strategy: All, but in particular:

- Communication
- Initiative and enterprise
- Lifelong learning
- Problem solving
- Self-management
- Team work

Learning and teaching rationale: The strategy is premised on the assumption that university education is intended to enable students to study and learn independently, and that the route to independent learning is a reflective approach in which students reflect on what they are learning and plan their learning strategy. The emphasis is therefore on student preparation before attending classes, on independent study tasks in between classes, and on positive and active participation in teaching/learning environments.

Students therefore are required to complete weekly tasks after attending the lecture. These are focused on arousing curiosity, enabling independent learning and encouraging critical thought. In some units, the self-assessment tasks are deliberately designed to encourage students to think deeply about the conceptual principles underpinning accounting practice. There is an emphasis on interactive, small group learning environments which reflects the conviction that it is this environment that will enable students best to achieve the goal of university education.

Details of learning and teaching strategy:

In first year units, especially, a tightly integrated program of weekly lectures (each lecture is 100-120 minutes long), which emphasises interaction and application rather than content delivery.

Weekly tutorials and workshops, each 50 minutes long, emphasise and enable participation and interaction. Students receive slides which provide brief outlines of the weekly topic and case studies or other material in either hard copy or online prior to lectures. They are expected to read the items pertaining to each lecture prior to attending the lecture. The lecture slides are intended to provide structure for the interaction during the lecture. Following the lecture, students undertake independent study tasks which can involve readings from textbooks or other materials and preparing answers, for example to problems from text books. Instructions as to which independent study tasks to undertake are available online where instructors also place the solutions to the week's independent study problems at the end of each week to allow students to check their answers.

After preparing for and attending lectures, and having completed the independent study tasks, students attend weekly tutorials in which they ask questions about and participate in activities which focus on understanding the weekly topics and which enable students to satisfy themselves that they 'understand the important issues relating to the . . . topic' (BFA104, Accounting Context and Method, Unit outline, Semester 2, 2008, p.10).

Some units provide assessment criteria/guidelines for tutorial participation. These relate to evidence for relevance and comprehension of material, quality of discussion and argument, and style and presentation (Accounting theory, BFA 302, Unit outline, 2008, p.11).

In workshops (sometimes optional), students practise procedures with support from teaching staff present (usually more than one). This method of delivery encourages communication within groups of students, among groups of students and among individual students and the group. Activities may include presentations, working in pairs, use of discussion boards and chat rooms, report and essay writing, short answer responses or multiple choice quizzes. In Accounting Context and Method (BFA104), these activities enable students each week to apply the week's topic to a weekly case study. Workshops are thus intended to enable students to develop both technical and non-technical skills.

In some units, for example, Financial Management (BFA 181/281) and Accounting Theory (BFA715), there may be assessment tasks involving journals or log books that develop reflection. In BFA 181/281, for example, the log books are required to be used for tutorial problems; they are expected to be self-marked and corrected, and to include explanations, comments or notes recorded during tutorials (using different coloured pens from week to week). They also include a short written self-reflection component. Such exercises enable students to develop critical assessment of their understanding in terms of

what has been learnt, any learning difficulties they encountered, and the application of their learning to the 'real world' (Financial Management, Unit outline, p.12).

Units in the program also employ several forms of peer assessment and registration procedures that enable students to develop self management skills. One unit enables acquisition of independent research skills by setting a question relating to an independently researched project in the final examination with a weight of 10 per cent.

In second and third year units, there is a shift to the more traditional model of face to face lectures (two per week) and a tutorial (one hour per week), though some units continue to operate within a small group learning environment.

All unit outlines unambiguously communicate to students how each of the tasks set and their assessment relate to either technical skills or to bundles of non-technical skills listed under graduate attributes. 'Communication skills', for example, include written expression, numeracy, critical thinking and teamwork.

A popular elective corporate internship program which requires students to work either one, two or five days a week over the semester complements the program. Weightings of participation in the internship program range from 12.5 to 100 per cent per semester. During the internship, students compile weekly diaries and reports. Internships are very popular but demand for them exceeds available placements.

Level to which strategy is applied: Whole Bachelor of Business program, but especially first year units.

Student population: Up to 260 in 1st year; up to 130 in 3rd year.

Assessment of learning related to strategy: In the unit outlines, each piece of assessment is clearly linked to the relevant unit objectives and, where possible, assessment materials are designed to have a real-world flavour. For example, one assessment task in Financial Accounting 261, involved assessment of the development of a 'premium economy' class in the configuration of airline seating as a response to the deep vein thrombosis threat. A case study in Auditing is an interactive one in which students submit a sampling plan and are provided with audit test results based upon it, from which they then make judgements about risk and the need for further review.

The wide range of assessment tools includes, for example, take-home tests, essays, multiple choice quizzes, critical thinking exercises, student oral presentations, and case study analysis.

How long the particular teaching strategy has been in use: 14 years.

Role of unit in Bachelor of Business (Financial Accounting): Not applicable because strategy is program-wide.

Essential texts: Various

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Evidence for success of strategy:

1. The School received the University's 2002 Teaching Excellence Award for its innovation in teaching and learning.
2. SETL (Student Evaluation of Teaching and Learning) scores have improved under this strategy and continue to do so.
3. Across the school, student feedback relating to acquisition of non-technical skills has consistently been positive. Comments include: '...your (unit) has forced me to the next level of thinking and expression', and 'Seminars are interactive and I found this really helpful'.

Challenges:

- Maintaining a small learning environment in the face of pressures on shrinking resources
- Providing support services for students, particularly those from "non-traditional" backgrounds; for example, humanitarian migrant students (humanitarian migrants rather than economic migrants are the great majority of the Tasmanian migrant intake), mature and other students who do not come via the year-12 route, international students and students with disabilities. This is a joint effect between dedicated staff (1 full-time academic support and 1 full-time student support person) and teaching staff. Another resource issue! But this is particularly important in equipping these students to participate fully and in a way that enables them to develop their generic skills.
- A teaching population that is far more mobile than was the case previously in Tasmania. It is important that incoming staff become quickly familiar with the school 'culture' and do not simply transplant practices from their previous positions, but also that existing staff are open to new ideas that are brought in.

Strategy 4: Mapping, embedding and scaffolding teamwork

Strategy in brief: Mapping, embedding, and scaffolding teamwork (group working) skills are taught in three units, beginning with BUS160 Introduction to Accounting in 1st year, continuing with BUS217 Technical and Accounting Processes in 2nd year, and culminating in BUS256 Contemporary Financial Accounting in 3rd year at Murdoch Business School, Murdoch University. The units are taught by different accounting faculty, including Dr. David Holloway.

Non-technical skills aimed to be enhanced or developed by strategy:

- Communication
- Initiative and enterprise
- Planning and organising
- Problem solving
- Teamwork

Learning and teaching rationale:

1. The pedagogic assumption is that students' learning will be enhanced by solving problems at rising levels of difficulty when organised into groups, enabling them not only to improve their problem solving skills, but also their communication skills, their co-operation, as well as their skills to plan and organise. In the final, third year exercise, students are able to demonstrate initiative and enterprise.
2. The non-technical skill of teamwork needs to be embedded across the undergraduate program to ensure that students are able to learn it.

Level to which strategy is applied: First, second and third year mandatory accounting units

Student population: Approximately 700 students in total across the three years

Details of teaching and learning strategy: The first year unit 'Introduction to Accounting' requires students to undertake a small group project. In second year, a larger group project requires students to also use computer skills (QuickBooks) both inside and outside the classroom. In a third year unit 'Contemporary Financial Accounting', students work in groups on a major, capstone project which requires a hands on analysis of an existing publicly listed company with students acting as a group of consultants. Questions they need to consider and assess include the potential of an aggressive takeover.

Assessment of learning relating to strategy: Non-technical skills are assessed informally in class as well as in teaching and unit surveys. A form of peer assessment is also employed.

How long the particular strategy has been in use: 4-5 years.

Evidence available for merit and success of strategy:

1. Positive feedback from unit assessment at the end of semester with an improvement in unit evaluations since the team/group work has been embedded in the program.
2. Positive feedback in student evaluations.

Challenges:

- It is difficult to assess whether students have learnt to work in teams effectively, other than by receiving anecdotal reports from employers
- Peer assessment needs to be refined to avoid answer drift
- There is a need to take further steps to address the free rider problem.

Strategy 5: Joint out-of-class tutorial preparation

Strategy in brief: This is an out-of-class, student-led preparation for tutorials in which leaders rotate on a weekly basis. The strategy is used in Advanced Financial Accounting (Acc3AFA), Faculty of Law and Management, La Trobe University, Melbourne (Bundoora) Campus. Course coordinator: Leo Langa.

Non-technical skills aimed to be developed or enhanced by strategy:

- Communication
- Initiative and enterprise
- Problem solving
- Planning and organising
- Teamwork.

Learning and teaching rationale: The pedagogic assumption underpinning this strategy is that students will feel less daunted as a group by the challenging problems they are required to solve than if they were dealing with them individually. The expectation is that the team will perform better than the individual that it will be more productive and that participation in tutorials will improve. Rotating the leader enables each team member to acquire planning and organising skills.

Details of learning and teaching strategy: The unit is half theoretical and half practical. Weekly tutorial problems are intended to challenge and extend students. Besides familiarity with and understanding of particular content, the unit seeks to develop the non-technical skills of: (i) teamwork, (ii) planning and organising, (iii) problem solving and (iv) initiative and enterprise, as well as (v) communication. The main strategy used to enable students to develop or enhance skills (i) – (iv), involves joint preparation for weekly tutorial problems. Students self-select into groups of 3 - 4, and prepare together, led by one of the group members. The leadership of the group rotates each week with leaders being selected by group members or allocated by teaching staff. (There are currently no penalties for students who do not prepare together or for students who do not rotate leadership, but the importance of both processes is mentioned and emphasised repeatedly in lectures and tutorials. Students have not complained about joining teams or having to take a turn at leading the group).

Levels to which strategy is applied: Advanced Financial Accounting is a 3rd year mandatory unit in Bachelor of Commerce (Accounting).

Student population: 200.

Assessment of learning related to strategy: part of general assessment of learning outcomes in unit (see below).

How long the particular teaching strategy has been in use: Two semesters

Student population: 200.

Role of unit in Bachelor of Commerce (Accounting):

The unit aims to create an understanding of some major contemporary issues associated with the measurement and reporting of the operating results and financial position of modern reporting entities. Topics include foreign currency transaction and translation, superannuation, financial instruments, construction contracts covered within the context of recent recommendations of the Australian accounting profession. The unit also covers the role of theory in accounting. (Based on Unit Learning Guide 2008).

Unit elements

1 x 2 hours lecture per week

1 x 1 hour tutorial per week

Assessment of learning outcomes in unit:

Mid Semester Test (multiple choice, 1 hour) 30%

Final examination (3 hours - 40% hurdle) – covers all parts of the course and consists of short answer theory and practical questions requiring calculations and the recording of accounting Journal entries. 70%

Essential texts:

Deegan, C 2007, *Australian Financial Accounting*, 5th ed., McGraw-Hill Irwin, North Ryde.

Accounting Handbook 2008, Pearson Prentice Hall or ICAA or CPA Australia's *Member Handbook*.

Evidence available for merit and success of strategy:

1. Anecdotal evidence from students (off-the-cuff remarks from more than a dozen students) was that they enjoyed the group work, did not feel as lonely, and the environment that group preparation created was conducive to learning. There have been no complaints from students to staff about the strategy.
2. Participation in tutorials has improved.
3. Staff considered that the joint preparation of weekly tutorial problems improved relations among students
4. Answers to theoretical questions in final examination demonstrated greater depth than in previous years.

For more information, contact: Leo Langa L.Langa@latrobe.edu.au

Strategy 6: Prison field trip

Strategy in brief: This entails a field trip to a prison where students speak with professional accountants incarcerated for fraud and related offences and question them on the reasons for and the circumstances that led to their fraudulent behaviour. The unit is offered in Ethics and Financial Services (MAA350), a third-year auditing unit in the School of Accounting, Economics & Finance, Faculty of Business & Law, Deakin University, Burwood Campus.

Non-technical skill aimed to be developed or enhanced by strategy:

- Communication
- Problem solving
- Self management

Learning and teaching rationale: The dilemma/issue the strategy addresses is fraud and ethics in auditing. The strategy exposes 'students firsthand to the potential consequences of committing a business related crime' in an 'experiential learning exercise' (p.30). The aim is to 'enhance students' awareness and sensitivity to white-collar crime, particularly accounting related fraud' (Dellaportas 2008, p.30), and to connect some of the knowledge taught in the auditing unit to its real world applications. Learning outcomes should be a better understanding of the ethical issues related to accounting and an improved ability to deal with conflict and pressure. The conclusion students should draw from the unit and the strategy is that poor decision making has significant consequences and that accountants convicted of fraud are ordinary accountants who made bad decisions.

Details of learning and teaching strategy: Students visit either a medium or low security prison facility in Victoria and speak first-hand with a volunteer panel or focus group of professional accountant inmates who were convicted of fraud and related offences.

Students volunteer to participate in this field trip. Students are bussed to the prison, attend an information session with correctional officers, then tour the prison. Prison officers organise the panel of inmates, all of whom are professional accountants who volunteer to speak with the students. In response to students' questions, they speak of the fraudulent activities in which they engaged (but, at the request of prison authorities, not about their fraud strategies), their motives for offending, and their regrets since imprisonment. Students who attend the field trip have the option of completing an essay (Essay 1a) based on questions set around the prison visit, or the alternative topic set by the lecturer. All other students (those enrolled in the unit but who did not attend the field trip, must complete an essay based on the alternative topic (Essay 1b).

This strategy requires an heroic organisational effort in which the lecturer clears the students' visit with the University administration, the Justice bureaucracy, addresses ethics requirements and resolves occupational health and safety issues, security issues,

privacy and secrecy issues as well as budgetary issues. Security issues differ depending on whether the institution to be visited is low or medium security.

No more than 30 students can participate at a time. Since demand exceeds supply, some students have had to be turned away.

Level to which strategy is applied: A third year ethics elective (MAA350, Ethics and Financial Services).

Student population: The field trip can accommodate up to 30 students at a time.

Assessment of learning related to strategy:

Students can opt to write an essay applying some of the theoretical knowledge acquired in MAA350 to the evidence obtained in the visit to the prison. The essay is submitted as Assignment 1a (see below, Assessment in unit as a whole).

Role of MAA350 (Ethics and Financial Services) in Bachelor of Commerce (Accounting):

The unit aims to develop students with ethical sensitivity to issues they will face in the fields of accounting and finance. It aims to sensitise students to ethical issues in the business world. The unit focuses students on the development of the core values in ethics, exposes them to ethics theories, ethical decision-making processes, and real world ethical issues. The unit brings together the requirements of the latest financial services reform in Australia and the current debates for an increasing demand for public accountability of finance professionals such as professional accountants, finance consultants, financial planners and market analysts.

Professional values and ethics are pervasive in the role of finance professionals. Ethics underpin the professions' contribution to public trust and confidence in the marketplace. Ethical behaviour is seen to be as important as technical competence and the development of ethical sensitivity and professional standards is integral to all accounting and finance education.

Length of time it has been offered in this form: MAA350 has been taught at Deakin University for about three years; however, the current instructor – Associate Professor Stephen Dellaportas - has been at Deakin University for one year.

Assessment in unit as a whole:

Essay 1 - an individual essay examining ethical issues in accounting	20%
Essay 2 – A written assignment requiring application of ethics to real case scenario	30%
Examination	50%

Evidence for success of strategy:

Students' evaluations of the visit to the prison provided evidence for:

1. the novelty, excitement and awe they experienced at being in the prison environment (in other words, evidence for the impact of the experience on them)
2. the demystifying effect of the visit as far as the prison environment was concerned
3. the revelatory effects for them of the exchanges with the prisoners
4. the relevance of the prisoners' statements since the offenders had been 'successful career accountants on the same professional pathway as the students' differing only in age (Dellaportas 2008, p.31)
5. the poignancy and power of the message that crime does not pay.

Essential texts:

Dellaportas, S *et al.* 2005, *Ethics, governance and accountability: a professional perspective*, John Wiley, Milton (Qld).

For further information, see: Dellaportas, S. 'Accountants committing fraud: conversations with inmate accountants', paper submitted to *Building Our Community*, American Accounting Association Annual Meeting, Anaheim (CA) August 2008.

Contact for further information on this strategy: Associate Professor Stephen Dellaportas, Deakin University, steven.dellaportas@deakin.edu.au

Strategy 7: Engagement with practitioners, business plans and case studies

Strategy in brief: This is a three-pronged strategy employed by Glen Hutchings of Curtin Business School, Curtin University of Technology in a first-year accounting unit. Students are enabled to develop and enhance their understanding of the importance of non-technical skills in accounting and motivated to acquire both technical and non-technical skills through

1. interaction with and active participation of practitioners in the unit
2. a group project (the Business Management Project) involving compiling a business plan for the real life subject of a case study and
3. a competitive voluntary component of the unit in which extra work by teams of students, if of sufficiently high standard, is recognised and rewarded by a Big4 accounting firm.

Both technical and problem solving skills are scaffolded throughout the unit. The voluntary component enables students to also develop and demonstrate initiative and enterprise.

Non-technical skill/s aimed to be developed or enhanced by the strategy:

- Communication
- Initiative and enterprise (applies to voluntary component more than to other components)
- Planning and organising
- Problem solving
- Teamwork
- Time management

Learning and teaching rationale: The pedagogic assumption of this strategy is that creating a real life experience for students in which they interact with and learn from successful practitioners, and solve problems pertaining to a real life case study can engender motivation and an understanding of the relevance of non-technical skills as well as learning of technical skills beyond the capacity of academics to deliver, though their advice and instruction are also provided. Problem solving activities are scaffolded so as to enable students to develop both technical and problem solving skills to a level where they can navigate ambiguous environments. The competition in the voluntary component of the unit encourages some students to exercise and demonstrate initiative and enterprise and achieve a standard in their project work higher than they might otherwise achieve.

Level to which strategy is applied: first year unit level.

Student population: ca. 1000. Eighty per cent of students are not accounting majors. Forty per cent of students are international students. About 40% of students attempt the voluntary component of the unit.

Unit elements:

Three-hour seminars incorporating lectures, practical demonstrations, workshop sessions and interactive communication.

Non-compulsory, flexible, mentoring sessions to address specific problems on a one to one basis.

Details of learning and teaching strategy: Accounting 100 is a compulsory first year unit for accounting majors and minors. The unit seeks to create a real life experience for students and thereby to increase the relevance of the unit. The unit instructor, Glen Hutchings, involves accounting practitioners in teaching with an emphasis on non-technical skills. The practitioners, from Ernst & Young, sponsor the unit.

The project involves traditional accounting areas such as capital budgeting, costing, developing prices, etc. These elements are all addressed extensively in seminars and workshops as well as in a text customised to the unit which requires student to work through weekly sets of worked examples and assigned and practice questions. Half way through the semester, students undertake a case study project (the Business Management Project) which requires them, in teams of four, to address a number of key issues confronting a real, identified, often local business or company and to prepare a written report/business plan for the concern. The students' solutions are relayed to the business that is the subject of the case study.

The lecturer/unit coordinator develops the case study for the project (the case study is different each year), drawing on the business plan of a real business, in consultation with its managers or owners who also approve the final version of the case study. The case study is intended to create the contextual link between the constructs repeatedly scaffolded into the first half of the unit at progressive levels of depth and difficulty, and their final application in practice.

Businesses selected as the subjects of the case study can be relatively large firms or companies with two employees only. Incentives for businesses to participate include the prospect of some good feedback, exposure to a particular student demographic and, in some instances, a small income (for example, students received discount cards to the Perth Zoological Gardens when it was the subject of the case study). Most important to successful collaborations with Curtin University, however, has been the relationship of trust that the unit instructor has developed with the managers or owners of the respective businesses.

The operations of the business, which is the subject of the case study, are recorded in a DVD supporting the case study and bringing the business and the environment in which it operates to the students; though some years, some students are able to also conduct site

visits. Curtin Business School's Media Producer produces the DVD under instructions from the unit instructor. The DVD is shown at a lecture, and then uploaded to the unit's Blackboard site. The intention is to immerse students in the business, and allow them to grasp its internal machinations and the complexities of the environment in which the business operates.

Practitioners from Ernst & Young launch the case study in the second half of the unit, and discuss with students the skill set the case study project seeks to develop and the importance to professional practice of the non-technical skills (teamwork, communication, problem solving, and initiative and enterprise). A seminar, specifically on working in teams, prepares students to effectively work together. Thereafter, throughout the semester, the unit instructor further illustrates the principles of productive team work.

The Business Management Project involves an element of peer assessment: team members assess each other at the project's conclusion according to specified criteria concerned with commitment and responsibility, that is, according to their teamwork skills. For a team member not to receive the full team mark, poor peer assessment has to be unanimous. Besides emphasizing teamwork skills, this process provides some protection against the 'free-rider' syndrome.

Students may voluntarily undertake an additional component of the unit and submit an expanded business plan/report on the subject of the case study to Ernst & Young practitioners for competitive assessment. In the report, students identify an opportunity for the business which is the subject of the case study, develop strategies on how that opportunity can be seized, identify weaknesses and develop strategies on how that weakness might be overcome. Participating students gain certificates with some winning awards. Up to ten percent of participating students can gain such awards provided the submission is of sufficiently high quality. The high level of achievability engenders further motivation. The results students achieve may also provide them with accelerated access to the recruitment process with Ernst & Young.

Assessment of learning related to strategy:

Mid semester test	25%
Business Management Project (the case study project)	25%
Final examination	50%

The voluntary component is marked separately to the unit as a whole. Students undertaking the voluntary component receive a mark out of 25%.

How long the particular teaching strategy has been in use: Five years, beginning in 2003.

Role of unit in B.Com and B. Business Management program:

Mandatory introductory unit, covering accounting fundamentals. The unit is concerned with the role of accounting within the business world and the influence of accounting on society in general. In addition to developing technical proficiency, the unit has been designed to develop “creativity, professionalism, communication and inter-personal skills” (from unit outline).

Learning outcomes are:

- ability to explain the importance of business planning and prepare a basic strategic plan
- ability to use management accounting techniques to resolve business problems
- ability to prepare financial statements in good format
- ability to complete the accounting cycle; and analyse and interpret financial statements
- ability to prepare a written report
- ability to analyse ambiguous problems and develop solutions (from unit outline)

Essential text:

Hoggett, JR, Edwards, L & Medlin, J 2006, *Accounting in practice*, 6th ed., John Wiley, Milton (Qld).

Hutchings, G 2008, *Accounting in practice*, John Wiley, Milton (Qld).

Evidence for success of strategy:

1. The experience of the unit instructor has been that students’ perception of accounting alters as a result of completing the unit.
2. Unit evaluations are in the 90 percentile.
3. Employers’ (Ernst & Young) have sustained their support for the unit and their involvement in it.
4. Since 2003, the unit instructor, Glen Hutchings, has won many teaching awards in whole or in part for this unit:
 - 2008 Curtin University, “Excellence and Innovation in Teaching Award – Teaching Excellence”
 - 2007 Curtin University, “Excellence and Innovation in Teaching Award – Programs that Enhance Learning”
 - 2007 Curtin Business School “Program of the Year Award”

- 2006 Curtin Business School “Teacher of the Year Award” – Runner-up
- 2006 Curtin Business School “Program of the Year Award” – Runner-up
- 2005 Curtin University, “Vice Chancellor’s Award for Excellence”
- 2004 Accounting and Finance Association of Australia & New Zealand “Lecturer of the Year”.

Challenges:

1. Developing the case study and the DVD supporting it is a major undertaking, requiring a large investment of time and effort.

For further information, the contact is Glen Hutchings - Glen.Hutchings@cbs.curtin.edu.au

Strategy 8: Written communication research and referencing skills

Strategy in brief: A three part, compulsory assignment designed to enable students to develop and enhance written communication, research and referencing skills in the first year unit Accounting for Managers (BUSN1001) at Flinders University, coordinated by Professor Carol Tilt.

Non-technical skills aimed to be enhanced or developed by strategy:

- Communication (written)
- Problem solving
- Self management

Learning and teaching rationale: The pedagogic assumption of this strategy is that students should be enabled to acquire grounding in the skills of referencing and research and the principles of academic integrity before attempting to write an academic essay.

Details of learning and teaching strategy: The goal of this strategy was to enable first year accounting students to improve their communications, research, referencing and writing skills as well as their understanding of principles of academic integrity and that the skill development should be staged. The three exercises that constitute the strategy are part of an assignment that contributes 10 % towards the unit mark.

The first two exercises utilise on line resources available at Flinders University but usually used only on a voluntary basis. In this unit they are mandatory. The first exercise - an online Library exercise – consists of 20 multiple choice questions constructed by Library staff, covering how to access online databases, how to read the Dewey decimal library system and how to identify the source of a reference from its format. The assessment of the results is online. This part of the assignment contributes 15% towards the assignment mark.

The second component of the assignment is also online, consisting of a module on academic integrity. It contains definitions of academic integrity and explanations of its importance, a guide to citing sources with examples, a general guide enabling students to avoid cheating behaviours and material on how to work in groups without cheating. This last item is especially important as approximately 90% of plagiarism among Business School students arises from students copying each other's work, whether knowingly or not. A link to Flinders' policies, a practice quiz and an actual test complete the module. The Academic Integrity module contributes 15% towards the assignment mark.

Students attempt the third component of the strategy, a 500 word essay on an accounting topic, only after completing the first two components of the assignment. They also have available a lecture and a tutorial entirely devoted to writing and referencing. An option considered for an activity during the tutorial is to provide students with three sample

essays, one at high distinction level, one at pass level and one a fail due to plagiarism. Students, without knowing the grades of the essays, will be asked to grade each essay themselves. The grades awarded by the students are then compared to the actual grades the essays received, followed by discussion of what makes a good essay and how the poorer essays could be improved.

As preparation for the essay writing, students are also required to read Chapters 1, 2, 3 and 6 of Fleet *et al.* 2006 *Communication skills handbook for accounting*, and Chapter 1 of Kimmel *et al.* 2006 Study guide to accompany 'Accounting: building business skills', 2nd edn.

An example of an accounting topic set for the essay is: What is meant by the historical cost assumption? Explain the arguments for and against the use of this assumption in accounting. The short essay contributes 70 % towards the assignment mark.

Instructions relating to the essay include: use at least three references, of which only one may be an electronic source; incorporate at least one direct quote: reference correctly and include a reference list; and use the Harvard system of referencing. The essay is marked on: accuracy of content (20%), structure and presentation (35%), and on correct referencing (45%).

An option to provide students with plagiarism detection software has not been implemented as the current software does not deal well with the numbers and spreadsheets included in many accounting assignments, and it is in these types of assignments, rather than essays, where most plagiarism occurs in accounting (students working together inappropriately).

In one year *Turnitin* text matching software was used to review all essays submitted (as a trial of the software when the University was considering various options for the type of software to support). Students uploaded their own essays themselves, then submitted the *Turnitin* report with their final essay. No plagiarism was detected in the year the software was used. Students reported (anecdotally) that the software was some help in understanding correct citing of sources, but was not considered to improve the quality of students' work substantially.

Level to which strategy is applied: This is a first year core unit in the Bachelor of Commerce for both Accounting and Finance majors, and is also taken by non-business majors in a variety of degrees.

Student population: 400 students in Semester 1; 150 students in Semester 2.

Assessment of learning related to strategy:

Allocated marks for Assignment are 10 % of total assessment.

Of these 10%, 15% are for Library On-line Assignment, 15% are for Academic Integrity On-line Assignment, and 70% are for the Short essay.

How long the particular teaching strategy has been in use: Four years.

Role of unit in Bachelor of Commerce:

The unit aims to ‘provide a solid grounding in accounting fundamentals including the double entry system, the income statement, balance sheet and statement of cash flows, and elementary financial statement interpretation and analysis’. A second aim is to equip students with a critical perspective on accounting information via an understanding of the underlying principles, doctrines and methods. This topic consists of four main parts: (1) double entry system of financial accounting (2) balance day adjustments and financial statement preparation (3) analysis, interpretation and limitations of financial statements and (4) management accounting. No prior knowledge of accounting, mathematics or any specific subtopic is assumed.

(<http://stusyswww.flinders.edu.au/topic.taf?subj=BUSN&numb=1001&type=Calendar&year=2009>, sighted 11 December 2008).

Unit elements:

2 lectures weekly

1 tutorial weekly

6 workshops per semester

Assessment:

Assignment 1	10%
Assignment 2	15%
Tutorial Participation	15%
Examination	60%

Essential texts:

Compulsory Texts:

Kimmel P., Carlon S., Loftus J., Mladenovic R., Weygandt J.J. and Kieso D.E. (2005) *Accounting: Building Business Skills, Second Edition*, Milton, Queensland, Wiley.

Fleet W., Summers J. & Smith B. (2006) *Communication Skills Handbook for Accounting*, 2nd ed. Milton, Queensland, Wiley.

Some additional handouts are provided during the course, usually chapters from Hoggett *et al.* (2006).

The following texts are recommended reading:

For the 'accounting component of the course':

Hoggett J., Edwards L. and Medlin J. (2006) *Accounting*, Sixth Edition, Milton, Queensland, Wiley. (this is similar to the previous book but contains additional chapters that cover management accounting)

Hornigren C., Harrison W., Bamber L., Best P., Fraser D., and Willet R. (2004) *Accounting*, 4th Edition, Prentice Hall.

For the writing and referencing exercise:

Hay I., Bochner D. & Dungey C. (1997) *Making the Grade: A Guide to Successful Communication and Study*, Oxford University Press.

Evidence available for success of strategy:

1. Anecdotal evidence from lecturers in other units that the students have improved referencing skills
2. Anecdotal evidence from students that the assignment was interesting and enjoyable
3. No negative feedback from unit evaluation surveys, but also no expressly positive feedback
4. Interest from other lecturers for implementing similar assignments into their units, particularly from *BUSN1105 Introduction to Management*
5. Information presented at IRUA meeting and to colleagues at other schools
6. The strategy was implemented after course and topic reviews identified issues around poor student communication skills

Challenges:

1. It is difficult to establish whether the strategy has reduced plagiarism rates, as information on plagiarism rates remains mostly confidential.

For more information: Professor Carol Tilt e-mail carol.tilt@flinders.edu.au

Strategy 9: Problem-based learning and reflective practice in business information systems

Strategy in brief: A strategy that combines principles of team-based learning (TBL), problem-based learning and reflective practice in the context of business information systems in the compulsory undergraduate unit Business Information Systems Foundations (INFS 1000), which is a prerequisite to the accredited unit Business Information Systems (INFS2001) at The University of Sydney.

Non-technical skills aimed to be enhanced or developed by strategy:

- Communication
- Creativity and lateral thinking
- Design skills
- Lifelong learning
- Problem solving
- Teamwork
- Technology

Learning and teaching rationale:

Combining the principles of TBL, problem-based learning and reflective practices in the context of Business Information Systems is designed to enable students to engage actively with taught content, to develop into teams and to experience and benefit from team-based learning, to develop and enhance their problem solving and communication skills (including presentation skills) and to develop creative solutions enabled by technology.

Details of learning and teaching strategy:

The Workshops: Workshops combine very short lecture presentations focusing on the main issues and various team-based learning activities, including discussions, conceptual modelling, on-line demonstrations and activities, group-based readiness assessment tests, as well as problem-solving, critical thinking and creative tasks.

Students are allocated to teams and work on team assignments during workshops. The same teams also undertake the group project (see below). Workshops are team-taught, with tutors who have broad business skills, though not necessarily information systems knowledge; they act as facilitators in the classroom, working closely with students and helping the lecturer. (In very large units using these methods, lectures are repeated three times a day to accommodate student numbers).

The emphasis is less on delivery of content than on activities designed to facilitate learning from/with other members of the INFS1000 learning community including the other INFS1000 students, lecturers, TBL tutors and industry partners (the instructor

involves companies and other businesses in the unit). Students work on real life scenarios that may be developed from external resources.

Students are expected to maximise their learning opportunities by preparing and attending all TBL sessions and actively participating in all activities. This includes reading the assigned chapters from the textbook before each workshop.

Three progressive mini-exams (individual) conducted in the workshops (week 4, 8 and 12) provide continuous feedback, ensure progressive learning, and prepare students for the practical, real-life group project (see below) (from INFS1000 Unit of Study Outline, with minor modifications).

Weekly Lab Workshops provide hands-on, computer-based activities that reinforce the course concepts. They are designed to help students to acquire the necessary practical skills to be able to implement their creative ideas to solve given business problems, as required by the project. The emphasis is not so much on technology as on business value creation and creative solutions enabled by technology.

The group project: Students working in teams are expected to use the knowledge and practical skills they acquired in the unit of study to investigate and solve a real life business problem. All teams work on essentially the same problem. An example of a problem is:

- Design a simple database solution that will enable The University of Sydney to harvest the collaborative “wisdom” of its community (i.e. students and staff) related to simple things we can do while on campus to reduce our collective “carbon footprint” and contribute to a greener environment (from unit of study outline).

The group project has three components: a written report, a practical demonstration and a poster session. The writing of the group report is staged at several levels of difficulties. In **Part 1, Task 1a**, the tasks are to identify and critically analyse three different real life BIS-enabled examples of collaborative wisdom related to the project. Examples of questions guiding students are:

- Describe the nature of ‘collaborative wisdom’ in each example
- What are the main objectives and benefits a company/organisation/community is aiming to achieve through its collection?
- In your opinion, are there any ethical issues involved?
- In your opinion, what are the main limitations of each example?

In **Part 1, Task 1b**, teams are required to provide a high level of synthesis of the main research findings from all three examples. Questions to guide them include:

- What are the common issues, themes, patterns and/or possible limitations that could be identified across different examples?
- Are there any conclusions that could be made at this stage, based on your limited analysis (only three examples)?

In **Part 2** of the written report, the teams engage in Design and Reflective analysis. This requires them to present a short summary of their idea, a printout of an electronic poster which together communicate the essence of the project in two different ways, to design a high-level conceptual model (ER Diagram) of their solution, to use relevant frameworks and models covered in the unit, to identify and analyse any possible BIS ethical issues that could arise from the project, to use a database solution to ‘harvest and manage’ collaborative wisdom, and to critically reflect on their project relating it to their learning experience in INFS1000.

There then follows a **practical group demonstration** focusing on the practical skills (technical competency) acquired in the unit of study. Students demonstrate the technical skills acquired in the unit of study in the context of their project. The demonstration takes place in the laboratory and consists of two independent parts: an electronic poster and a database application used to demonstrate the practical database skills acquired. To evaluate the contribution of each group member, the practical demonstration may include individual questions for different group members.

At the end of the course, selected electronic posters are included in the INFS 1000 electronic gallery available on the course web site. The best projects are selected for inclusion in the best-of INFS 1000 gallery available on the BIS website, conditional on permission of all group members.

Finally students prepare and present their creative ideas and a **printed (A2) size poster** to industry partners and guests, teaching staff and other students. The printed poster is designed to communicate the big idea to the business community, whereas the electronic poster was designed to demonstrate technical skills and to communicate with tutors. Selected posters are presented to invited guests including industry partners.

Level to which strategy is applied: First year undergraduate unit.

Student population: About 1100, between 500-600 students per semester.

Assessment of learning related to strategy:

Progressive mini- exams (individual) (Exam 1 – 10%; Exam 2 - 15%; Exam 3 - 25%)	50%
Group project	40%
1. Written report	20%

(Part 1, task 1 – research and enquiry – 6%;
Part 2, design and reflective analysis – 14%)

2. Practical demo 10%

3. Poster session 10%

Team-based learning activities 10%

How long the particular teaching strategy has been in use: Two semesters.

Role of unit in Bachelor of Commerce course:

This unit aims to equip students with an understanding of the role of information systems in business, existing and emerging technologies, and the social and organisational impacts of information systems. The main focus is on business value creation rather than information technology.

The unit is designed to provide a general understanding of the role of information systems, as required by any business graduate. It also provides a foundation for further study, including Business Information Systems (INFS2001) which forms part of the Accounting accreditation sequence, and a series of units which comprise the Business Information Systems Major (from INFS1000, Unit of Study Outline).

Unit elements:

Weekly workshops (team-based learning session) - 2 hours

Weekly Lab session - 1 hour.

Essential texts:

Haag, S, Cummings, M & Phillips, A, *Management information systems for the information age*, 7th or 8th edn. (both acceptable). McGraw-Hill/Irwin, Boston (Ma.)

From 2009:

Kroenke, D. (2009) *Using MIS*, Prentice-Hall.

Evidence available for merit and success of strategy:

1. Anecdotal evidence/formal student feedback suggest student enthusiasm for the strategy and surprise at what they are able to achieve, as well as enjoyment
2. Employers have continued supporting the unit as industry partners and maintained a positive attitude to it.

(Footnote: Team-based learning at The University of Sydney is applied with variations in other units in the program. In some units - mostly second and third year units - students'

group assignments include work outside the classroom). Examples of assignments requiring team work are:

ACCT1002 Accounting 1B: group work on newspaper article task

ACCT2012 Management Accounting: a group case study and presentation

ACCT3011 Financial Accounting B: a group research essay

ACCT3014 Auditing and Assurance: a group assignment and presentation.

Reference:

Marjanovic, O 'Inside agile processes: a practitioner's perspective', Proceedings of the Hawaii International Conference on Systems Sciences, HICSS '42 Hawaii, 2009, *publication pending*.

Further information is available from Olivera Marjanovic

o.marjanovic@econ.usyd.edu.au

Strategy 10: Teamwork skills

Strategy in brief: This enables students in the Masters of Professional Accounting and Masters of Commerce at The University of Sydney to develop teamwork skills within the classroom and through various assessment tasks. The techniques include

1. Contract development skills relating to individual responsibilities of group members undertaking group assignment in the unit Management Accounting and Decision Making (ACCT5002) but practised also in other units
2. Ability to document outcomes of contracting in the form of minutes of meetings in advanced units as, for example, in Advanced Financial Reporting (ACC6010), peer weighting and creating and grading linkages between the different parts of group assignments are two other strategies enabling students to develop teamwork. Creating linkages in assignment parts means that assignments are structured so that their different parts are integrated and dependent on each other and are not easily disaggregated into discrete, unconnected components. The scope to build in marks for linking the components of the tasks may vary between assignment tasks, but increasing the linkage between the different parts has produced more cohesive assignments and improved group work.

There is a penalty for failing to peer weight (loss of 20 % of the attainable mark), although the process is not graded. All group members have to agree with weighting and sign off on it.

Students are supported by online teamwork students support materials.

The capstone unit Contemporary Issues in Auditing (ACCT6007), a compulsory subject in the Master of Professional Accounting and available as an elective in the Master of Commerce illustrates some of the methods used in developing teamwork within the classroom through assessment tasks. The unit is taught entirely by way of case studies, partly in intensive mode. A digital library (e-library) enables students to familiarise themselves with details of corporate collapses and other sources and is one of the resources on which students draw for their group representations in this unit. While much of the focus in the unit is on teamwork skills, the unit also attempts to enable students to develop and enhance several other non-technical skills. The sections below focus on this unit.

Non-technical skill aimed to be enhanced or developed by the strategy in 'Contemporary Issues in Accounting':

- Communication
- Diversity
- Lifelong learning

- Problem solving
- Self management
- Teamwork

Learning and teaching rationale: Using contemporary case studies of corporate collapses– a form of business simulation- enables students to experience some of the complexity of real life situations and issues of concern in the practice and regulation of contemporary auditing. The authenticity of the commercial and legal consequences of corporate collapses enables students to better understand the business, legal and economic importance of auditing and engages them more than contrived examples would. The case studies lend themselves to thematic treatment (auditing as a process of quality assurance and control, auditing as a process of evidence collection and evaluation, auditing as a process of independent authentication and judgment formation and auditing as communication and reporting). The case studies also enable instructors to apply a problem-based approach and to devise exercises in reflective thinking. Individual and group-based assessment tasks cover the range of non-technical skills.

Details of learning and teaching strategy:

Students attend weekly seminars for which they read in advance readings set from textbooks and the e-library. An individual integrative assignment is designed to encourage students to think about the major themes of the unit in the context of actual, complex auditing scenarios – to apply their knowledge gained through reading and class discussion to case particulars. Work on the assignment is intended to be progressive as the unit unfolds.

Students are also expected to undertake advance readings for and participate in three Saturday sessions case study discussions. The material for each Saturday session is provided in advance via Blackboard. Participation in discussions in these sessions is regarded as compulsory though it is not specifically assessed. In Saturday sessions, students work through case studies, sometimes watch a film on one of the cases, and engage in group work to complete specific tasks. To benefit from the Saturday sessions and to be able to analyse the case studies, students will have to have covered enough material in advance.

Only one or two case studies are set for each semester’s **group case assignment**. Early in the process of preparing the group case assignment, and using a concept map, students have to individually present a one page outline explaining how they would approach the case study. This outline is marked individually (5%) and serves as an assurance of learning.

Students self-select and prepare the group presentation and written part of the group case study assignment in teams of four. The case studies that students work on are supported by the e-library which holds a rich collection of case studies and associated resources and supporting material and which provides choices in terms of the detail and depth to which students can go.

In the last of the Saturday sessions students, in teams of four, students present their answers to questions provided to them relating to the case study set. Presentations last for 20 minutes and are followed by questions about their case from the cohort. Each group is designated different aspect of the relevant case to analyse. At the end of the presentation, each group submits a written group case report of 1000 words. Marks for the group presentation and the written group case report together are 15%.

The learning and teaching of presentation skills are embedded in earlier courses, but if students' skills fall short, there are on-line resources that can assist them.

Level to which strategy is applied: Capstone unit in the Masters of Professional Accounting and Masters of Commerce programs.

Student population: about 700 p.a. (enrolments not equal in semesters).

Assessment of learning related to strategy:

Individual integrative assignment -	10%
Mid-semester test -	15%
Group case study assignment	20%
Final examination	55%

How long the particular teaching strategy has been in use: Identification of this unit as a capstone unit, with skill development occurring in earlier units, was articulated in 2003. The development of on-line resources for students has being an ongoing process through the Office of Learning and Teaching in Economics and Business which, under a previous name, has been in place since 2002.

Role of unit in Masters of Professional Accounting: 'To examine the role of auditing in the context of contemporary corporate financial failures to illustrate, explain and analyse the role and effectiveness of auditing in contributing to the creation and sustenance of an orderly commercial society. Presenting auditing as a practice complementary to accounting links contemporary audit practice and the issues examined in prior units of study in accounting and business law. The unit, along with the material used (as well as the linkages with prior studies in accounting and cognate disciplines such as business law and finance) create a framework for studies in business and related disciplines. For many students it will represent a capstone unit' (from Unit of study outline).

Unit elements:

1 x 2 hour or 3 hour weekly seminars

3 x 6 hour long (9.00 – 4.00) Saturday case study sessions - taught in intensive mode. Mandatory Saturday sessions are organised in workshops of about 50-70 each

Voluntary tutorials

Several voluntary remedial workshops on Saturdays.

Essential texts:

Leung, P, Coram, P & Cooper, B 2007 *Modern auditing and assurance services*, 3rd edn. Wiley, Milton (Qld).

Frank Clarke, F & Dean, G 2007 *Indecent disclosure: gilding the corporate lily*, Cambridge University Pr., Cambridge.

2008 *Auditing Handbook*, 2008.

Evidence available for success of strategies

1. The requirement to provide minutes of meetings and document and quantify contribution to group assignments was introduced in ACCT6010 in 2008 in response to student feedback on formal subject evaluation forms. The innovation in 2008 was supported by students as evidenced by comments from individual students through staff-student representative meetings.
2. Improvements in learning outcomes were observed. Specifically, the marker advised that more groups scored marks for linking the components together. It would seem that requiring students do document the role of each member of the group, and attendance of group meetings, improved actual communication within the group.
3. Effort towards developing teamwork skills is not confined to individual subjects and curriculum activities. As part of our Faculty orientation programme, we have a student panel that presents and answers questions from the floor on various matters relating to “success at University”. We specifically assign a student to talk about strategies for effective group work. We also run transition classes during the orientation period. Recently, we started collected feedback on this session from participants. Feedback from that has indicated that most students participating, found the session (very) helpful and that particularly valued: successful team work skills; discussion around what each member (including themselves) could bring to the group; the need to discuss goals and expected standards with team mates; and check lists for helping the team to be successful. That’s the good news, but the ongoing challenge is to encourage higher participation in these beneficial voluntary activities.

In relation to other generic skill/graduate attribute development, more formal assessment of whether written communication skills are developed to the desired standard has been embedded in the Master of Professional Accounting and the accounting major of the Master of Commerce. Although communication skills were already implicit in written work, such as assignments and examination, there was not specific assessment of students’ communication skills because marks achieved reflect a composite of other learning outcomes addressed in a particular assessment task (such as problem solving

skills, critical analysis, knowledge of the subject matter, understanding of theory etc.). Accordingly, communication skills are now directly assessed on an individual written task undertaken in a capstone unit (ACCT6010). In addition to marking the written work, based on accuracy of content, validity of interpretation, analysis, use of evidence to support argument etc., an assessment is made as to whether work represents written communication to a professional standard. This assessment graded as not meeting, satisfactory or exceeding, is based on exclusive consideration of the use of language, sentence structure, within-paragraph structure and over structure of the text.

Challenges:

Some concerns about free riders remain though higher prerequisite (i.e. restricting entry) for ACCT 6007 mitigated the problem. The problem was addressed in ACCT6010 by requiring groups to be accountable for individual contributions within the group and the adjustment of marks for below equal contribution.

Contact for further information on strategy:

ACCT 6007 Contemporary Issues in Auditing - Sandra van der Laan

email: s.vanderlaan@econ.usyd.edu.au

ACCT 5002 Management Accounting and Decision Making – John Dumay

email: j.dumay@econ.usyd.edu.au

ACCT 6010 Advances in Financial Reporting – Janice Loftus

email: j.loftus@econ.usyd.edu.au

Strategy 11: Planning, organizing, self-management, teamwork and lifelong learning

Strategy in brief: A strategy to embed development and enhancement of non-technical skills (planning and organising, self management, teamwork, lifelong learning) into an assignment in management accounting without sacrificing content, used at Swinburne University of Technology by Dr Julie Foreman in Management Decision Making (HBC222), a mandatory unit for accounting and management majors, an elective for everyone else.

Non-technical skills aimed to be enhanced or developed by strategy:

- Lifelong learning
- Planning and organising
- Self-management
- Teamwork

Learning and teaching rationale: The unit, using lectures and tutorials, was partly restructured in a university-wide initiative to ensure a spread in teaching and learning of generic skills across units. The challenge was to reorganise a unit previously based on a new venture assignment and integrate into it teaching, learning and assessing of generic skills (teamwork) but to do so without sacrificing content and while maintaining a strong connection to management accounting.

Details of learning and teaching strategy: The restructured unit has at its centre a case study, related to management accounting, which requires students organised into groups to engage in qualitative analysis of the results of the calculations and to submit a group report.

Students have to perform four tasks in the course of completing the assignment, each enabling students to develop or enhance specific and different generic skills. These skills are time management, project management, and self-reflection in preparation for Lifelong learning as well as, throughout the assignment and team work.

The tasks are:

Task 1 – **Self-reflection** [skill: self management] - After forming themselves into groups, students submit a written paragraph each reflecting on the skills and expertise that they as individuals bring to the group and the group assignment.

Task 2 - **Project management** [skill: planning and organising; teamwork] - Each group of students works out what tasks are necessary to complete the assignment, including their individual roles and responsibilities, and précis the details (rather than, as before, asking the tutor what needs to be done).

The rationale behind these two tasks is that students are required to think about how to work as a group and begin to understand what the demands of the assignment are. Assessment of their submission at this stage focuses on their level of understanding and if it is apparent that they do not understand what is required of them, feedback from the instructor can assist at an early stage.

Task 3. Preparing a timeline [skill: planning and organising, teamwork] - They then prepare a timeline which assigns the various tasks to the group members.

Tutors then examine the timeline in the light of the level of reflection in Task 1, the task itemisation of Task 2, and assess whether it is realistic to be able to complete the assignment as a group to the required standard.

Task 4. Time management [skill: self management, planning and organising, teamwork] - Two weeks before the assignment is due, students are required to examine their progress against the timeline. They have to decide whether they have met their milestones and, if not, what needs to be done to complete the assignment in time. They then submit this plan/report in writing and complete the assignment.

Level to which strategy is applied: unit level.

Student population: 210 per semester, a mixed cohort, including 30 per cent accounting majors, also management majors. However, the unit may also be the first university unit for students coming through articulation from TAFE.

Assessment of learning related to strategy: The assignment carries 35 marks. Each interim piece of assessment is worth 5 marks leaving 25 for the final assignment. Final mark also includes compulsory peer assessment to the value of 25 per cent of the 35 per cent mark.

How long the particular teaching strategy has been in use: Two years.

Role of Management Accounting (HBC222) in Bachelor of Business course: To introduce students to the role of accounting in the planning and decision-making functions of the management process.

Unit elements:

2 x Lectures

1 x Tutorial

Essential texts: Langfield- Smith, Thorne and Hilton *Management Accounting*, 5th edn. McGraw- Hill,

Evidence available for merit and success of strategy:

1. Anecdotal evidence from lecturer and tutors that the strategies to teach generic skills are successful, and there are fewer crisis situations due to lack of time management skills
2. Unsolicited positive student feedback that the strategies 'forced them to focus' and made them aware of assignment all through the semester
3. There are initiatives within the university to disseminate the strategies to other subjects and units.

Strategy 12: Presentation skills and teamwork

Strategy in brief: In this strategy, used in the undergraduate unit Auditing and Assurance (HBC 225), in the Bachelor of Business course at Swinburne University of Technology, students prepare in teams for group presentations but are marked individually. Presentations are assessed only for presentation skills, not content, and they precede the submission of group essays, usually on the same topic. (The strategy is also used in the postgraduate unit Company Auditing (HBC 614). The description here relates primarily to HBC 225). All students may also be required to write a short piece identifying the links between activities in the course and the development of non-technical skills. Their reflections are marked individually.

Non-technical skills aimed to be enhanced or developed by strategy:

- Communication
- Diversity
- Problem solving
- Self-management
- Teamwork

Learning and teaching rationale:

The aim was to enable students to develop or improve their ability to speak in public to work in teams, research, problem solve and present a team assignment while maintaining individual responsibility for the outcome of the collaborative work.

Details of learning and teaching strategy:

The teaching strategy involves a two-part assignment: a presentation and a written report. The process is:

Part 1. Presentation

- (i) Students in the different tutorial groups self-select to form teams of three.
- (ii) All students in the team receive the same assignment topic, which relates to one or more of the auditing topics.
- (iii) Students prepare as a team to make a presentation on the topic. Tutors or lecturers assess the presentation not for content but for public speaking skills;
- (iv) Students, although preparing as a team, are assessed individually and receive an individual mark for their public speaking skills. This ensures that everyone presents, including some quiet international students.

- (v) The lecturer briefs students on the principles of good presentations/public speaking in a lecture partly dedicated to the subject. The rubric containing the criteria for assessing students' public speaking skills is part of the unit outline.
- (vi) Each team has only a strict 15 minutes to present. There are also restrictions on the number of overheads permitted to be shown to ensure that students speak to the topic. Students decide whether they allow questions or use their allotted time for presentation alone. (Last semester, rather than a presentation with five minutes allocated to each student, we decided to return to the group presentation of 15 minutes.)
- (vii) Assessment is by two academics (to the extent possible).

Experience has shown that joint preparation by students leads to little variation in team members' individual marks. Students, including international students, have responded positively to this exercise. The decision of the staff has been to not allow difficulties in English pronunciation to affect the assessment.

Another key benefit from the presentations is a better blending/empathy between domestic and international students. It has become obvious that following the presentations domestic students begin to consider the difficulties international students encounter when having to do a group presentation in a language other than their first. In some classes domestic students have stated in discussions that they could not imagine having to present in a language not their first.

Part 2. Written group essay

The written group essay may comprise two parts:

- (i) the group essay
- (ii) an individual section in which each student reflects on the generic skills he/she developed [this part was omitted in the last semester]

The group essay is marked by the tutor for content, and the group receives a single group mark. However, the unit also uses peer assessment to enable students to see the presentations from different perspectives and to develop critiquing skills. There are no marks involved in the peer assessment process.

The reflective individual part when included as an assessment task is marked by the lecturer and students receive separate feedback and an individual mark. The marking is on the basis of whether the student has made the connection between the activities, engaged in the unit, and acquired particular non-technical skills. The intention is for students to develop an understanding of the importance and meaning of non-technical skills. The reflective piece accounted for 15% of the group essay and 3% of the overall assessment in the unit.

Level to which strategy is applied: **Undergraduate unit level.**

Student population: ca. 200 per semester at undergraduate level, ca. 100 per semester at postgraduate level.

Assessment of learning related to strategy:

Presentation 10%

Assignment 20%
(of which 3 points (15% of 20) is for a reflective piece if required).

How long the particular teaching strategy has been in use: Four years (since 2005).

Role of unit in Bachelor of Business:

To enable students to develop understandings of the underlying concepts, objectives, and reporting functions of the auditor. The unit seeks to achieve this by dealing with both theoretical and practical aspects of auditing. The intention is to integrate the concepts of auditing with practical approaches taken by the auditor to ensure students gain a complete picture of the auditing process (based on description in Swinburne's course search).

Assessment:

Tests 10 %

Presentation 10 %

Assignment 20 %

Final examination 60 %.

Essential texts:

Gay, G & Simnett, R 2007, *Auditing and assurance services in Australia*, 3rd rev. edn., McGraw-Hill, Sydney.

Evidence available for merit and success of strategy:

1. Anecdotal evidence from students that the strategy improves their experience of the unit.

Strategy 13: Communication

Strategy in brief: The Language for Professional Communication in Accounting (LPCA) in the Master of Accounting (MAcc) program at Macquarie University is a strategic collaboration between Macquarie University accounting subjects specialists and language teachers of the Centre for Macquarie English (CME). The strategy uses team teaching and team marking to embed teaching of non-technical skills in the majority of the disciplines (altogether 13 units) of the MAcc program.

Non-technical skills aimed to be enhanced or developed by strategy:

- Communication
- Lifelong learning
- Problem solving
- Self-management.
- Teamwork

Learning and teaching rationale: The strategy proceeds from the pedagogic assumption that skills teaching should be integrated into the disciplinary context. This overcomes two major handicaps: (i) the perennial problem of non-technical skills failing to be developed in content-laden university curricula and (ii) the lack of proficiency of subject specialists in teaching non-technical skills. An added benefit from such integrated team teaching is that the language and subject specialists learn from each other.

Details of learning and teaching strategy: In its more comprehensive form as, for example, in relation to the unit 'Current Issues in Accounting', LPCA means that CME staff and accounting subject specialists meet at the planning stage and jointly develop learning objectives and assessment tasks, then teach and assess non-technical skills alongside or parallel to each other, in other words, team teach or jointly teach the subject.

They then go through the following stages:

1. preparatory teaching of the skill to be assessed, for example essay writing. This means that the language expert comes into the classroom and team teaches essay writing skills with the subject specialist.
2. students do their first in-class essay. It is returned to them within a week, with comments both on language and discipline content.
3. students attend an adjunct workshop addressing specifically the skills required to write the particular research essay set. The focus is not on research skills generally but on researching the particular topic in data bases and other sources of information. The workshop is team taught, with the language specialist and subject specialist working in the classroom at the same time developing, respectively, the students' technical skills and communication skills. Subsequent to the workshop, the language specialist continues to be available for consultation with students.
4. students may also avail themselves, if they wish, of general workshops on general research skills. However, experience has shown that workshops, both in-class and

adjunct, which target assessment tasks specific to a unit achieve the best learning outcomes.

LPCA may also involve joint or team marking. The accounting subject specialist and the CME specialist assess the submitted student research essays in their respective areas of expertise, the subject specialist for the quality of the technical content, the CME specialist for the non-technical skill demonstrated. This means that students receive two separate sets of feedback.

The twofold assessment may be followed by an exam question which again tests for both technical and non-technical skills but in a new content setting.

In its more truncated form, LPCA may involve only joint setting of objectives and tasks for a unit by the language and subject specialists followed by the language specialist coming into the classroom in one week of classes to teach particular skills, for example business report writing, oral presentation skills, teamwork skills etc. The accounting lecturer usually is also involved in these sessions. Thereafter, students undertake the set task out of class.

The program also involves practitioners (employers, employees and mentors) in impressing on students the importance of communication skills to their employment prospects and career development.

Level to which strategy is applied: 10 of the 13 units of study in the MAcc program.

Student population: All students of the Masters of Accounting program. About 75% are international.

Assessment of learning related to strategy: As described above.

How long the particular teaching strategy has been in use: Introduced incrementally and from the bottom up since 2002.

Essential texts: Materials are written by CME staff.

Evidence available for success of strategy:

Two employers have commented favourably in detail about MU MAcc students in voluntary placement and have taken on some as permanent employees.

1. Improved employment/recruitments data/statistics - anecdotal reports of Big 4 taking on Macquarie Masters of Accounting graduates which they did not do before integrated teaching was instituted.
2. Macquarie students have outperformed national cohort in MAcc CPA extension program in their pass rates.

3. Strategy and instructors have been recognised in teaching awards: MU Excellence in Education Team Award - Dawn Cable, Mary Dale, Elaine Evans, and NCELTR (now CME) colleagues, for project "Language for Professional Communication in Accounting" (awarded for student support to programs that make outstanding contributions to the quality of student learning).
4. The strategy is receiving funding from the faculty.

Challenges:

1. The strategy is expensive
2. Sustainability when staff resign or move to other positions
3. Continuing institutional support
4. Continuous evaluation

Strategy 14: Problem-based learning and teamwork

Strategy in brief: This strategy incorporates problem-based group work into the subject's teaching objective, requiring students to relate the subject matter to the real world, to report regularly or at set times to instructors on progress, to peer assess oral presentations and to peer weight contributions to group work. The strategy is used with variations at Macquarie University in some undergraduate accounting units as well as in a postgraduate accounting unit. Here it is illustrated in relation to Financial Statement Analysis (ACCG350) as taught since 2002 (based on Radich, Wright & Howells 2007)

Non-technical skills aimed to be enhanced or developed by strategy

- Communication
- Initiative and enterprise
- Planning and organising
- Problem solving
- Self-management
- Teamwork.

Learning and teaching rationale: Financial Statement Analysis (ACCG350) has been designed to enable students via collaboration and peer learning to prepare for the world of work and improve communication skills, ability to solve problems, self-manage and work in teams as well as achieve deep learning, engage with the content of the unit and remain motivated.

Details of learning and teaching strategy: pre-lecture release of lecture slides

Financial Statement Analysis (ACCG350), a capstone unit, is designed to enable students to develop an understanding of the theories and practice of financial statement analysis, develop an appreciation of the flow of financial accounting and other information to the equity market and the way this information is used for valuation, and develop non-technical skills in a range of areas including analytical skills in information management, analysis and interpretation in a multi-disciplinary environment, communication and negotiation skills, and the presentation of progress reports (from Unit outline 2007).

The unit of study utilises **lectures** and **tutorials**. Students receive lecture slides a week in advance of the lecture.

Lectures and tutorials are related, in that the regular tutorial questions and tutorial cases cover the lecture material with the usual one week lag. In **tutorials** students discuss their answers to weekly questions concerning case studies. During the semester, students investigate three case studies in tutorials. The process of answering the tutorial questions prepares students for the group project.

Students bring to the tutorial two copies of their answers to the weekly questions and hand in one copy to the tutor at the beginning of the tutorial. Their answers are assessed. (3 x 5%). Tutorial answers are also examinable in the final examination.

Students prepare a **group project** in teams of two or three. The group project topic is usually ambiguous, designed to enable students to develop initiative and problem solving skills. As in the work place, students do not receive advice on where to find information to solve the problem but have to rely on their initiative and enterprise to find it and to decide how to use it. The topic in 2007 was 'Evaluate and report on the most recent annual report of an Australian company (chosen from a list provided) as if you were security analysts making a recommendation on whether or not your clients should invest in it'. Sections required to be covered were a Business and Strategic Analysis, Accounting Analysis, Financial Analysis, Prospective Analysis and Recommendations.

Instructors monitored the students' progress in working on the group project by means of two oral group presentations on the first two stages of the group report, respectively in Week 5 and week 10 of semester. In these presentations, the teams report on their progress and receive feedback on their work from their peers and tutor. All team members are required to participate in the presentations.

Earlier units of study have prepared students taking ACCG350 to deliver oral presentations. The presentations are marked for the quality of presentation, not content. Prior to group presentations, students receive a marking sheet which allows them to provide qualitative comments as well as a mark to their peers. The presentations focus students on the work, enable them to learn from evaluations and feedback, enable them to improve time management skills, listening skills, presentation skills and to critically analyse and communicate. The process of peer evaluation ensures that those not presenting remain engaged. The formative nature of the feedback allows students to adjust their learning to the gaps the assessment identifies.

As a further measure to ensure that the group work becomes genuinely collaborative and free of the free rider problem, questions in the final exam are crafted to target the whole of the group project. Examples are: 'Describe how you chose the industry that this company is in? What challenges were there in getting information about that industry?'

Level to which strategy is applied: Third year undergraduate accounting unit of study but also more widely within the Bachelor of Commerce and postgraduate units at Macquarie University.

Student population: 300.

Assessment of learning related to strategy:

Tutorial attendance and participation	7%
Case study assignments (3x5%)	15%

Major assignment group presentations (2x4%)	8%
Group project final report	20%
Final examination	50%

How long the particular teaching strategy has been in use: Since 2002.

Role of unit of study in Bachelor of Commerce (Accounting): A third year capstone unit.

Elements of unit of study:

Lectures

Tutorials

Essential texts:

Lundholm, R & Sloan, R 2007, *Equity, valuation and analysis*, 2nd edn., McGraw-Hill/Irwin.

Evidence available for success of strategy:

1. Positive student evaluations which highlight their improvements in self-management and engagement in the course
2. Observed greater engagement by student in unit of study and project
3. Lecturer's observation that there was improvement in final exam performance: students were better able to answer questions relating to group project

Challenges:

1. Keeping abreast of all developments for the ten companies that students assigned over the semester
2. Finding tutors who are able to cover all of the material required

References

Radich, R, Wright S & Howells, K 2007 'Orchestrating successful group work in accounting' [Draft paper].

Strategy 15: Foundation skills development unit

The strategy in brief: Personal and Professional Skills in Business (BU1005) is a new core unit in the Bachelor of Business course at James Cook University, which focuses on developing a foundation skill base for a successful university experience and on providing students with a critical appreciation and understanding of the complex set of skills required in the workplace (from JCU – Studyfinder, <http://secure.jcu.edu.au/app/studyfinder/?subject=BU1005>).

Non-technical skills aimed to be enhanced or developed by strategy:

- Communication
- Teamwork
- Problem solving
- Self-management
- Planning and organising
- Technology
- Lifelong learning
- Initiative and enterprise
- Ability to deal with diversity

Learning and teaching rationale: The strategy proceeds from the assumption that non-technical skills are the key to the gaining of knowledge and that the teaching of these skills requires special skills. The first year unit Personal and Professional Skills in Business (BU1005) is taught by instructors with the requisite skills to teach non-technical skills who teach in a reciprocal, interactive teaching style that demands student participation and challenges student ability. Because the teaching of non-technical skills is approached as a course wide responsibility and endeavour, other first year units of the Bachelor of Business course stage assessments, to the extent possible, of non-technical skills to fit in with the progress in the teaching of these skills in BU1005.

Details of learning and teaching strategy: Following the mapping of the teaching and assessing of non-technical skills and graduate attributes in each course in the Bachelor of Business degree as part of an accreditation initiative, the School established a foundation course - Personal and Professional Skills in Business (BU1005) - to provide students with the opportunity to develop their non-technical skills before these skills were needed and assessed for the first time in other undergraduate units. This meant that in relation to first year units of the Bachelor of Business course, mapping identified the time that assignments fell due and the non-technical skills they primarily assessed. If an accounting subject required a presentation, the intention was that students would have already covered some of the skill development related to generic presentations in BU1005. Once they were enabled to gain a basic understanding of this skill through BU1005, students presenting in other first year units were enabled to progress to a more discipline-based use of the skill. Second and third year units further developed the discipline-based aspect of non-technical skills.

Teaching in BU1005 utilises lectures, workshops, group work, case studies, discussions, simulations, readings and key pad clickers. Some of the activities are:

Individual learning plan – a process to self assess existing knowledge, skills and attributes and those needed to acquire. It is also intended to enable students to develop organising and planning skills, time management skills, self assessment and critical analysis.

Workshop exercises - each exercise is linked to a particular workshop. Workshops focus on subjects such as

- Self awareness
- Time and self management
- Working in teams
- Business report writing
- Oral presentation skills
- Problem-solving styles and techniques.

Business skills inventory – students in groups of five develop a wiki to provide an inventory of business skills most commonly sought by employers collected by the group from multiple information sources. They are also required to answer questions about the nature of the skills which call for critical thinking and analysis of information. The exercise also enables students to develop new technology skills, reference skills, research skills and team work and online collaboration.

Level to which strategy is applied: Core first year unit in Bachelor of Business course

Student population: All business students

Assessment of learning related to strategy:

(a) Formative:

- (i) voluntary multiple choice practice quizzes that can be completed online each week to test knowledge of material (not marked)
- (ii) literacy, numeracy and ICT skills tests; achieving a demonstrated standard of understanding in each of the areas is a condition of receiving a final grade in the unit

(b) Summative:

Skill workbook – altogether 30%

- (i) Individual learning plan (20% of 30%)

- (ii) Workshop exercises (80% of 30%) – weekly (10 in all, each worth 10 %) workshop exercises that require reflection on activities from the workshop program

Each task included in the skill workbook is assessed as either satisfactory or unsatisfactory. A rating of satisfactory receives the full marks for that task. Students decide how many tasks to complete (i.e. how many workshop exercises to do).

Wiki Business skill inventory: (20%).

How long the particular teaching strategy has been in use: Since 2008.

Role of BUS1005 in Bachelor of Business course:

1. To enable students to develop the full range of non-technical skills while taking the Bachelor of Business Course at JCU
2. To enable teachers to inform students how each expected non-technical learning outcome is assessed in the subjects in the Business Course curriculum at JCU
3. To enable students to display an enhanced sense of self-awareness and understandings of individual strengths and weaknesses
4. To enable students to develop and demonstrate competencies across a range of professional communication contexts
5. To enable students to demonstrate an appreciation of rational and creative problem solving and decision-making methods in individual and team situations

Assessment: Non-technical skills are assessed in all units explicitly by way of a rubric which identifies each skill. In BUS1005, the individual learning plan, workshop exercises, business skills inventory, etc. overall can contribute up to 50 % to the final unit mark. The final examination can contribute another 50%.

Essential texts:

Benckendorff, PJ & Ware C 2008, *Personal and professional skills in business*, McGraw Hill Custom Publication (packaged with ALEKS)

Train & assess it for Office 2003 CD-ROM, Pearson Education.

Benckendorff, PJ 2007, *The endeavour: a quality learning manual for students*, James Cook University, Townsville
(available free www.jcu.edu.au/business/CUDEV_011380.html)

Evidence available for merit and success of strategy

Informal feedback on BU1005:

- Anecdotal responses from students have been positive, though they also comment about too many assessment tasks
- Anecdotal staff responses overall are positive, though they also refer to too many assessment tasks

Challenges:

1. The need to assign non-technical skills development equal weight to content in assessments
2. To reduce number of assessment tasks

Strategy 16: Critical thinking development strategy

Strategy in brief: A strategy developed for the third year undergraduate unit Accounting theory (CO3013), at James Cook University designed to enable students to develop and enhance their ability to discuss accounting theory and research paradigms critically as theory applies to the real world. The strategy utilises assessable student contributions to and participation in an electronic debate centring on Nola Buhr's thought provoking working paper 'Accounting: it lifts and separates'.

Non-technical skills aimed to be enhanced or developed by strategy:

- Communication
- Problem solving
- Self-management.

Learning and teaching rationale: The pedagogic assumption underpinning this student-centred strategy is that by participating in an assessable debate about the commonalities and differences between accounting and advertising as set out in the Buhr article, students will be enabled to practise use of and actively apply to real life situations theoretical frameworks covered in the unit.

Details of learning and teaching strategy:

The accounting theory subject is taught with the view that accounting students have not been exposed to the subjectivity of accounting in a real-life context and the effects that accounting decisions may have on society in general and stakeholders on an individual basis. Central to the orientation of the unit is the use of a discussion board (on WebCT/Blackboard) by students for the purpose of discussing a working paper by Nola Buhr 'Accounting: it lifts and separates'. Students are required to bring theoretical perspectives, which they have been introduced to, to bear on the article.

Students proceed to discuss the article in groups of about 15. The discussion begins mid-semester, after the students have covered the course to the extent of understanding the framework. The discussion is assessed individually along with a reflective essay.

Level to which strategy is applied: Third year unit in Bachelor of Business course.

How long the particular teaching strategy has been in use: Two years

Role of Accounting Theory (CO3013) in Bachelor of Business: To enable students to develop understandings of the nature of accounting theory, accounting theory and policy, alternative accounting models for profit and capital measurement, the role of empirical research and future trends in accounting.

Unit elements

2 x lectures per week

1 x hour tutorial per week

1 x 1 hour workshop per week.

Strategy 17: A strategy to integrate core content and communication skills development

Strategy in brief: This is a strategy to integrate, as far as possible, the teaching and learning of targeted non-technical skills (routine, analytical and appreciative skills) with the learning of core content in a large first year accounting course (Introductory Financial Accounting, ACCG 105) at Macquarie University. An essential part of the strategy are three content based written assignments, preceded by compulsory, but ungraded, exercises that are intended to prepare students for the final writing up of the assignment tasks. Most of the exercises require final answers in the format of business documents. The compulsory exercises are content focused and modelled on the types of tasks used in language teaching to promote assimilation and transformation of new knowledge. The exercises and assignments scaffold the learning process in a variety of ways.

Non-technical skills aimed to be enhanced or developed by strategy:

- Communication
- Problem solving
- Lifelong learning.

Learning and teaching rationale: The designers of the strategy argue that many of the specialised skills of accounting (characteristic interactions, communicative abilities and situated thinking skills) have a linguistic or discursive component. If accounting expertise is largely verbal reasoning and acting, it should be possible, consistent with recent research on cognition and development to utilise the disciplinary interdependence between language and knowledge in a bootstrapping strategy which links conceptualisation to exercises in written communication. In other words, students may 'write to learn' enabling them to 'improve their grasp of accounting concepts through articulating and interrelating concepts in grammatically constrained and realistically contextualized writing activities' (Sin *et al.* 2007, p.148). In the process, they also acquire generic cognitive skills. The designers of the strategy further assume that students will be less resistant to learning non-technical skills when such learning is fully integrated with the core discipline content and does not require students to spend additional time in special classes (p.148).

Details of learning and teaching strategy:

Core content is delivered via **lectures** and **tutorials**, which are closely linked. Students submit weekly assignments linked to the previous week's lectures and readings.

In addition to attending and preparing for lectures and tutorials and completing weekly assignment tasks, students are required to complete three written assignments linked to topics taught in the unit, that is, the assignments are accounting based. They consist of

four tasks or questions, are set in business contexts requiring final answers to be written in the form of business documents (a letter, a memo or a short report) or relate to coverage of accounting issues by the media. The assignments' tasks are intended to extend students' perceptions and awareness of accounting beyond textbooks and classrooms.

The assignments topics increase in complexity from assignment to assignment. For example, the first assignment required students to analyse basic accounting concepts regarding the recording process. Later assignments presented students with more complex situations and tasks. Examples include: (i) relating relevant accounting concepts and principles to an accounting process, or, (ii) writing a letter to explain a breach of internal accounting control at the workplace and how a bank reconciliation statement is useful to safeguard cash (for which the prerequisite knowledge is how to prepare a bank reconciliation statement), and (iii) addressing ethical issues associated with various financial situations as a result of financial ratio manipulation.

The solution to each problem demands that students communicate concisely and clearly in a few written paragraphs. The emphasis is on clarity, accuracy and readability of the answer rather than on grammar and academic style. Students who are weak in English are not penalised, but instead assisted towards task completion by means of the compulsory exercises (see below) which are a key part of this teaching and learning strategy.

The compulsory exercises which students complete before attempting the assignments tasks are designed to assist students to revise the basic concepts, conceptualise the issues, and communicate all this in the appropriate language. Though compulsory, the exercises are not graded (Sin *et al.* 2007, *Accounting and Finance* 47, no. 1, pp.143–163). They carefully scaffold the learning process: scaffolding support is gradually and deliberately reduced to encourage independent thought and learning over the three assignments.

The strategy designers structured the exercises so as to 'activate and structure key concepts through writing ... raising awareness of co-occurring lexis and the syntactic patterns that accompany and constrain conceptual vocabulary' (Sin *et al.*, p. 150). The exercises consist, for example, of students being required to fill in blanks in short texts, compose or complete sentences using key words that were provided in random order, classify and/or rank relevant information, or to recognize logically connected sequences in jumbled arrays. The focus on sentence level structure is intended to reveal the structure of accounting principles and to provide students with syntactic models for their own writing available for them to use when they require them for the assignment tasks or in other contexts. In this way, the exercises concurrently facilitate developing analytical and critical thinking skills, written communication skills and a deeper understanding of accounting concepts and principles.

Appendix 1 illustrates some types of exercises that are part of the preparatory compulsory exercises required by students to complete before attempting the assignment tasks.

Level to which strategy is applied: First year unit in Financial Accounting.

Student population: just under 900.

Assessment of learning related to strategy:

The designers of the strategy identify the overall learning outcome targeted by the strategy as:

... the ability to communicate clearly, accurately and succinctly, in a written answer; and the knowledge and understanding of relevant accounting concepts while fulfilling all the communicative requirements of a realistically represented situation (Sin *et al.* 2007, p.151).

The criteria by which required learning attainments in the generic skills assignments are assessed are

Levels (grade)	Description of learning outcomes
1	Missed the point. Merely repeating key words or restating the obvious to cover a lack of real understanding.
2	Made some good points, but incoherently. Failed to understand the question. Answer contained many poorly formed sentences and/or copied sentences from the accompanying exercises or textbook.
3	Demonstrated a good understanding of the relevant points necessary to answer the question, but <i>has not answered the question</i> . Answer might be well written, but student has failed to fully understand the requirement of the task/question.
4	Understood the question well. Relevant points were well <i>related and integrated</i> to provide a good answer to the question. Sentences were well formed, and there was appropriate paragraphing.
5	Satisfied the requirements for level 4, and (depending on the question) further demonstrated the ability to present own views and arguments, or extend application of issues to broader domains. The answer was well written, with clarity in both expression and explanation.

From: Sin *et al.* 2007, p. 152.

The strategy designers intended that the criteria not separate the assessment of skills from the assessment of knowledge. The criteria are explained to students at some length in lectures as well as in the unit outline in relation to each learning outcome related to the weekly topics, and are illustrated to the students again in model answers to some of the assignment tasks.

Overall, assessment tasks in the unit are:

Written assignments (generic skills)	15%
Tutorial attendance and assignments	10%
Practice set tests (held with final exam)	10%
Final examination	65%

How long the particular teaching strategy has been in use: Since 2002. Following the trial in 2002, student work load was reduced to 2 assignments with 3 questions each. The strategy is currently in use. It was also used in ACCG100 for a couple of years until the LIC left the University.

Role of ACCG105 in Bachelor of Commerce (Financial Accounting):

1. To enable students to develop foundation understandings of the theory and practice of the double entry bookkeeping system, the trial balance, adjusting entries, the worksheet, the preparation of financial reports, the basics of cash flow and financial statement analysis.
2. To enable students to develop an understanding of the connection between the practical aspects of the accounting process and the end product - the financial reports.

Evidence available for success of strategy:

1. After first trialling the strategy, the strategy designers formally evaluated it in relation to data available for 807 students. They developed a method for assessing the overall results of the four tasks in each assignment to yield an average level for each assignment. The results were
 - (i) A general improvement across the three assignments, specifically an improvement from 65% of students satisfying the criteria at level 4 or 5 (see Table above) in assignment 1, to 72% doing so in assignments 2 and 3
 - (ii) (When examined by cohort) a marked improvement, although to varying degrees
 - a) Students doing the professional accounting degree rose from 58% satisfying the criteria at level 4 and 5 in assignment 1, to 72% satisfying the criteria at level 4 and 5 in assignment 3.
 - b) Bachelor of Technology students (students not studying for the business/commerce field) rose from 62% satisfying the criteria at level 4 and 5 in assignment 1 to 75% satisfying the criteria at level 4 and 5 in assignment 3.
 - c) International students rose from 49% satisfying the criteria at level 4 or 5 in assignment 1 to 68% doing so for assignment 3.

- d) Double degree (Law and Business Administration) students rose from 82% satisfying the criteria at levels 4 or 5 in assignment 1 to 87% satisfying the criteria at these levels in assignment 3. (More detailed results are available in Table 4, Sin *et al.* 2007, p. 156).
 - e) Students' self assessments using the same marking criteria across the assignments indicated a drop in overrating (the degree of overrating for assignment 1 was halved for assignments 2 and 3) suggesting improved student ability to understand learning objectives in the learning process, a development which is consistent with quality teaching.
2. The strategy and its rationale have been peer reviewed:
- i. Jones, A and Sin, S 2003, *Generic skills in accounting: competencies for students and graduates*, Pearson Education Australia, Frenchs Forrest (NSW),
 - ii. Jones A. and Sin, S. 2004, 'Integrating language with content in first year accounting: student profiles, perceptions and performance' In Robert Wilkinson, ed., *Integrating Content and Language: Meeting the Challenge of a Multilingual Higher Education*. Maastricht University Press, Maastricht,
 - iii. Jones, A and Sin, S 2004, 'The integration of language and content' Action research based on a theory of task design, *Journal of Applied Linguistics* 1, pp. 95-100,
 - iv. Jones A. and S. Sin, (2004), 'Integrating language with content in first year accounting: student profiles, perceptions and performance', *Conference for 'Integrating Content and Language: meeting the challenge of a multilingual higher education'*, Maastricht, 23-25 October 2003,
 - v. Jones, A and Sin, S 2005, 'Perceptions and priorities of diverse groups of 1st year accounting students with regard generic skills/communication skills', *Australian Journal of Accounting Education*, 1, 1, pp. 21-50,
 - vi. Sin, S & Reid, A 2006, 'Developing generic skills in accounting: Resourcing and reflecting on trans-disciplinary research and insights', *Proceedings of the Australian Association for Research in Education International Education Research Conference*, Sydney,
 - vii. Sin, S, Jones, A & Petocz, P 2007, 'Evaluating a method of integrating generic skills with accounting content based on a functional theory of meaning', *Accounting and Finance*, 47, 1, pp. 143-163.
3. Since 2005, the joint accreditation statement of CPA Australia and ICAA includes the contribution on generic skill development by Samantha Sin, one of the designers of the strategy, as well as a citation of Jones & Sin 2003.

Challenges: Developing the exercises for transfer to other units requires some expertise and effort. Jones & Sin (2003) is a good resource and Sin, Jones & Petocz (2007) explain the theory and how the strategy is implemented.

Appendix 1 (reproduced from Sin *et al.* 2007, p. 163)

The following are extracts of examples of scaffolding exercises used in the learning materials.

Exercise 1: There are a number of specialized terms associated with depreciation. In this exercise, define the words or phrases on the left. You may look them up in an accounting textbook, but try to express them briefly and in your own words.

-
- 1) wasting assets
 - 2) non-wasting assets
-

Exercise 2: Use the words or phrases given to complete the sentence that follows. Note that the words are not in the correct order. Also, other linking words or phrases may be required.

1) wasting assets – useful life – allocating the expired cost – non-current
Depreciation is the process of

2) objectivity – financial reporting – reliability
The cost principle promotes

Exercise 3: This exercise helps you to relate the capital maintenance assumption to depreciation. Fill in the gaps in the following passage using words given in the box:

capitalized, profit, revenue, balance sheet, expired, dividend distributions demise, recognized, overstated, expenses

The capital maintenance assumption states that _____ can only be _____ after capital has been maintained. The values of non-current assets in the _____ are the costs (when the

assets were acquired). If the _____ portions of these costs were not deducted as _____ from the period's _____, capital has not been maintained and profit was _____. This could lead to the erosion of net assets through _____ and the eventual _____ of the business.

Exercise 4

The following are four common misconceptions about depreciation:

-
- 1 Depreciation sets aside cash for replacing the asset when it comes to the end of its useful life.
 - 2 The written down value or net book value is representative of the replacement value.
 - 3 It is more advantageous to choose the straight-line method rather than the reducing method of depreciation because less depreciation expense is charged and profit will be higher.
 - 4 All non-current assets should be depreciated.
-

Below is an exercise on how the above misconceptions about depreciation can be dispelled. Assume the role of the tutor, Tom, in the following dialogue with one of your students, Sam. Complete the dialogue. Please see Practice Task 2.3 in Jones and Sin (2003) for the complete dialogue.

Strategy 18: Cognitive apprenticeship in professional auditing using ‘Second Life’

Strategy in brief: Central to this strategy is the use of a technology-enhanced learning environment, including the multi-user virtual environment ‘Second Life’ as a platform for machine-based cinema (machinima), to provide a learning context in which both internal and off-campus students can solve dilemmas against a backdrop of authentic workplace activities and practices so as to enable them to develop higher order thinking skills, the ability to communicate, work in teams and solve ill-structured problems in an advanced core auditing unit of study Auditing & Professional Practice (ACCT19064) - at Central Queensland University.

Non-technical skill (graduate skills and attributes) aimed to be enhanced or developed by strategy:

- Communication Use information technology
- Lifelong learning Professional and ethical practice
- Problem solving Practical, strategic and creative thinking
- Teamwork Reflective practice
- Self-management. Acquire, evaluate and use information
- Managing others

Learning and teaching rationale: CQ University is a multi-campus regional university with a high proportion of casual academic staff and international students and both off campus and on-campus enrolments, making delivery and support of authentic contexts for students challenging (Muldoon *et al.*, 2008). The unit design addresses this challenge by:

1. providing a meaningful and motivating learning context by creating “practice fields” - contexts that exhibit authentic practices of the auditing profession in which students can practise the activities they are likely to encounter in the workplace. The combination of print and multimedia presentation through the machinima makes business cases and complex accounting problems more accessible to the 70% or more of the student cohort in the auditing unit who are non-native speakers of the English language.
2. meeting the support needs of students by integrating instructional strategies based on the seven principles of good practice in undergraduate education (Chickering & Gamson, 1987), such as frequent contact between students and teaching staff, communicating high expectations, providing opportunities for active and collaborative learning, giving prompt feedback and guidelines for managing time effectively, and providing opportunities for active learning in multiple formats. The support needs of students are also addressed by providing a learning environment both face-to-face and online, based on the approaches embodied in the cognitive

apprenticeship model of learning (Collins, Brown & Newman, 1989), which include modelling, coaching and scaffolding strategies.

3. aligning all curriculum elements across the unit to facilitate active learning and engagement

Details of learning and teaching strategy:

Lectures/Tutorials -- The weekly lecture and tutorial sessions are combined in a two-hour format. In the weekly lecture, the instructor provides a summary of the weekly topic. In addition, all students have access to an electronic lecture synchronized with slides and a MP3 version so they can refer to the presentations as often as required. Students complete weekly individual review questions related to the weekly lecture topic prior to the tutorial at which they present and discuss their work coached by the lecturer. Off-campus students submit their completed individual review questions to the course coordinator online by a set date. Five randomly selected submissions by off-campus students receive individual feedback via e-mail or discussion board each week. In addition, off-campus students with questions engage with the lecturer by e-mail or posting to the discussion board.

Workshops

Team formation: The work in the two hour weekly workshop is undertaken in teams. Tutors assist internal students to form small audit teams (4-6 in each team) during the first workshop. By contrast, the course coordinator allocates off-campus students to audit teams based on students' geographic location and their previous academic performance, the aim being to enable some face-to face contact and to achieve a mix that enables maximum student learning.

Each off-campus audit team has a dedicated group space on Blackboard, consisting of a discussion board, a chat room, file sharing section and e-mail to facilitate interaction among team members. An 'intranet' is also set up for the 'audit firm' to add to the authenticity of the learning experience. The group spaces and communication tools available to off-campus students allow these students to 'meet' and 'collaborate' on a regular basis.

Role playing: Students take on roles as Audit Assistants led by an Audit Senior, a rotating position equivalent to team leader. Tutors assume the role of Audit Managers and the course coordinator is designated the Audit Partner.

The workshop tasks: The teams complete each week set tasks which are

- (i) worksheets resembling an audit working paper for the part of the audit covered in the week's lecture
- (ii) workshop tasks are preparatory tasks for students' major assessment items

Reflective practice: Once a week students are required to maintain their personal journal to reflect on their experience in their learning journey and the development of their technical and generic skills.

The mock audit focuses on two major case studies (delivered in four parts) that students explore and to which the worksheets relate. The first of the cases covers ethics and legal liability issues, the second, in three parts, the process of planning an audit. The case studies evolve around two fictitious clients of the mock audit firm (Sealant Products Pty Ltd and Crebel Sports Store) for whom the 'Audit Assistants' have to undertake audit-related tasks.

The case studies are presented in the form of 'machinimas', audio and video images acted out in 'Second Life', and then filmed. The machinimas also provide modeling of the role of the Audit Senior and scaffolding of the learning process, followed by modeling of expert performance by the Audit Manager (as discussed and demonstrated in lectures and tutorials). The Study Guide and Hird & Co intranet provide frameworks, templates and guidelines for the audit assistants to use when completing their tasks. Some of the coaching fades as the unit progresses (for further details, see Muldoon & Kofoed 2009b).

The student teams (now 'employees' and 'audit assistants' of the mock audit firm Hird & Co) access the machinima and, after obtaining guidance from the Audit Senior (their weekly team leader), peruse the Hird & Co intranet to prepare for the team meeting. At the meeting, led by the Audit Senior, they brainstorm strategies, compare individual ideas and reflect on them, and collaboratively construct their knowledge and solutions.

Off-campus students collaborate online to achieve the same objectives. Interaction levels among the off-campus teams have been very high.

The workshop activities continue in relation to different audit planning tasks up to week 12 of term however the machinimas only relate to work up to week 9.

The unit is supported by a course coordinator, a curriculum designer, five lecturers, six tutors, and one student mentor.

Authentic assessment: The machinima was used as an anchor to support authentic learning activities and assessment tasks, directly connected to learning outcomes. Both formative and summative assessment tasks were explicitly linked to weekly authentic learning activities in the physical classroom and/or online. The summative assessment consisted of a choice between mid-term test and minor team-based authentic assessment (10%), team-based portfolio assessment with individual reflective task component (30%), and final examination (60%).

Alternative team-based assessment 10%: Students were required to complete a Guidance Statement for the mock audit firm based on the output from the workshops in weeks 2 and 3 on ethical and legal liability issues, which were embedded in the story of

the first machinima. Assessment rubric was provided ahead of time as a means to guide students and appreciate the standard of performance required.

Team-based portfolio assessment with individual reflective task component 30%: Students are required to collaborate and produce audit working papers and associated documents (e.g. engagement letter) for their portfolio assessment. Each team member documents their team-based experiences in their personal journal, recording perceptions of their performance and identifying developmental needs. These reflections are later used as evidence to support individual's performance review documents. Part of this task is completion of a self and peer evaluation form to indicate levels of engagement and performance of all team members in the process of completing the audit working papers and documents. Two assessment rubrics were used in assessing the portfolio assignment: i.e. one for team-based assessment and the other for individual assessment.

Table 1, below, illustrates in greater detail how the instructional designs in this unit are explicitly linked to authentic practices of the auditing profession.

Table 2, below, outlines the various ways in which the technologically enhanced environment of the unit 'Auditing & Professional Practice' seeks to meet the support needs of students, consistent with the seven principles of good teaching practice.

Table 1: Aspects of the learning design based on practice fields design principles

(from Muldoon *et al.* 2008)

Practice fields design principles	Learning design strategies
Engagement in domain-related practices	<p>Integrate authentic learning activities</p> <p>To evaluate the professional auditors' working environment, the student assumes a junior auditor's role as 'Audit Assistant', and is then given an opportunity to take a leadership role on certain tasks as 'Audit Senior' for Hird & Co – students' fictitious employer introduced via machinima. These roles enable students to experience and engage in audit practices and perform real-life audit procedures, the activities and guidance for which are anchored in machinima.</p>
Ownership of the inquiry	<p>Facilitate assessment of performance which directly relates to domain-related practices</p> <p>The 'Audit Assistants', working as a team, plan and perform certain aspects of the audit for Hird & Co's new major client, Sealant Products Pty Ltd. Each Audit Assistant engages in inquiring into the business structure and practices of Sealant and contributing their views and perspectives on audit engagement. A nominated 'Audit Senior' for the week takes ownership of the inquiry to lead others in completing certain aspects of the audit. The team produces authentic audit artefacts involving a series of audit working papers, which are an integral part of the team's portfolio submission for assessment.</p>
Coaching and modelling of thinking skills	<p>Provide continuous access to expert knowledge and performance</p> <p>'Audit Assistants' attend lectures or view e-lectures to hear the perspectives of 'Audit Managers' about audit practices and procedures, and/or watch how the 'tools' for solving auditing problems are used. 'Audit Assistants' access other forms of coaching/scaffolding and modelling of thinking skills on demand, e.g. the machinima 'Audit Senior' explains the process for audit engagement; the 'Audit Manager' demonstrates tacit knowledge and expertise during tutorials; the Study Guide documents the perspective of the 'Audit Partner' and provides print-based modelling of audit procedures; the Hird & Co intranet provides frameworks, templates and guidelines for audit engagement.</p>
Opportunity for reflection	<p>Link the value of reflection to workplace practices</p> <p>Individual students engage in journal writing online about their experiences as 'Auditors' to record perceptions of performance and developmental requirements, which will be used as evidence to support their 'Performance Review' document. This strategy simulates workplace approaches when monitoring performance and developmental needs of staff through reflective practice.</p>
Dilemmas are ill-structured	<p>Make explicit workplace practices and processes for identifying and solving problems from different angles and varying perspectives</p> <p>The 'Audit Assistants' try to help the machinima-based 'Audit Senior' minimize incidences of unethical practice at Hird & Co by first identifying the underlying ethical and legal issues for the company involving a particular audit client, and then formulating and articulating their strategies through a 'Guidance Statement'.</p>
Support the learner rather than simplify the dilemma	<p>Provide multiple sources of modelling, scaffolding and feedback mechanisms</p> <p>Each 'Audit Assistant' examines complex auditing processes and attempts to complete an audit program for the Sealant audit. Prior to their attempt, modelling and scaffolding are provided by the machinima 'Audit Senior', followed by modelling of expert performance by the 'Audit Manager' (Lecturer/Tutor) during lecture and tutorial where procedures and issues are practically demonstrated and discussed. Support fades during</p>

	the workshop but the 'Audit Assistants' work as a team in this environment and support each other to complete the team's audit planning tasks, within the required deadline to facilitate timely feedback on completed work from the 'Audit Manager'.
Work is collaborative and social	<p>Facilitate reciprocal teaching and learning through goal-based activities</p> <p>In leading the team to complete certain aspect of the audit, the nominated 'Audit Senior' for the week opens discussions to brainstorm strategies, compare and reflect on individual's ideas, and provide guidance/direction to 'Audit Assistants' on specific tasks. Team members learn from each other through activities that involve collective problem-solving processes, within which ideas are shared and modified enabling collaborative construction of knowledge.</p>
Learning context is motivating	<p>Provide a virtual representation of the workplace on a rich, integrated and supportive online space</p> <p>To start work for the week, the 'Audit Assistants' access and view the machinima to seek guidance from the 'Audit Senior', then peruse the Hird & Co intranet to prepare for the team meeting. The presentation of content is in a story-telling format supported by interesting and realistic 'tools' commonly found in the professional auditors' work environment. The 'Audit Assistants' motivation is driven by the goal to complete the required audit working papers for review and assessment by their 'Audit Manager'.</p>

Table 2: Strategies for facilitating and supporting apprenticeship-style learning

(extracted from Muldoon & Kofoed, in press (b))

Seven principles	Learning and teaching strategies
Encourages contact between students and staff	<p><i>Facilitate ongoing and frequent interaction with teaching staff.</i></p> <p>The design of authentic learning activities facilitates frequent interaction during the lecture, tutorial and workshop, as both parties take on their respective roles in audit team settings. Approaches encourage three-way communication: student to student; teacher to student; and student to teacher whilst students undertake and complete authentic audit tasks. Online communication tools are widely utilised to motivate and encourage students to keep in close contact with teaching staff.</p>
Develops reciprocity and cooperation among students	<p><i>Provide team-based tasks in a collaborative and cohesive learning space.</i></p> <p>In the first workshop students are given team-building activities to complete to get to know one another. All students are allocated to an ‘audit team’ where they assume the role of ‘Audit Assistant’ and rotated as ‘Audit Senior’ for a fictitious audit firm, Hird & Co (students’ employer shown on the machinima). Through scaffolding and modelling in the machinima and Hird & Co intranet, students are provided opportunities to foster peer-driven learning where ‘Senior Auditors’ in ‘audit teams’ scaffold the learning of ‘Audit Assistants’. Members of each audit team are required to interact and collaborate to prepare weekly audit working papers for Hird & Co’s client, Sealant Products Pty Ltd. Team-based audit tasks facilitate the sharing of varying perspectives amongst team members.</p>
Encourages active learning	<p><i>Facilitate active and ongoing engagement in the learning journey.</i></p> <p>Every assessment item is linked to weekly learning activities and course outcomes, which facilitate active and continuous engagement, e.g. students are required to reflect on their ongoing learning engagement and development of generic skills in an online journal – this is linked to an assessment item. The dual roles each student plays in the audit process allow them to actively experience real-life audit procedures throughout the term – this is linked to another assessment item, which facilitates students’ active and meaningful engagement.</p>
Gives prompt feedback	<p><i>Provide ongoing and timely feedback from multiple sources.</i></p> <p>Students receive feedback weekly on audit tasks submitted for review. On-campus students receive feedback from their ‘audit managers’ during the workshops whereas off-campus students receive feedback in an online environment. Students can receive instant feedback on their knowledge and competence on the weekly course content by completing an online end-of-module quiz. Students receive feedback from team members as more knowledgeable students clarify concepts their peers don’t understand.</p>
Emphasizes time on task	<p><i>Direct student learning through realistically scheduled authentic tasks.</i></p> <p>Activities replicate real audit processes, demands and deadlines – guidelines and timelines to these activities are first given through the machinima then reinforced in the classroom and online. Moreover, the course profile provides specific timeframes for learning activities and assessment tasks. A weekly guide is also</p>

	provided on the course website to direct student’s attention to the required weekly tasks linked to learning outcomes.
Communicates high expectations	<i>Provide strategies and guidance for producing high quality work.</i> Pattern and depth of, and timelines for engagement are clearly articulated in the section “Managing Course Workload” and “Minimum Course Expectations” within the Course Profile. Marking rubrics are used for assessment tasks, which convey and differentiate the various standards of academic performance. Proformas are provided as a guide to students on the content and presentation of audit related tasks. Weekly feedback on written work is provided, which explains the required standards of performance in a given task.
Respects diverse talents and ways of learning	<i>Offer diverse learning experiences and vary assessment strategies.</i> Each ‘audit team’ consists of students with a range of ability levels, based on previous performance in the program, so that all teams can benefit from the diverse skills and attributes of its members. Individual and collaborative activities provide students with the opportunity for both self-directed and reciprocal learning while working collaboratively towards common goals. A variety of assessment tasks, supported by a range of learning tools encourage students to explore new ways of learning and show their acquired knowledge in the course.

Level to which strategy is applied: An advanced core unit in the Bachelor of Accounting program, normally undertaken by third year students.

Student population: Students who participated in the study included domestic students enrolled at regional campuses (n=34), onshore distance education students (n=47), offshore distance education students (n=2), and on-campus international students (n=239). Overall, there were 322 students who participated in this study.

Unit elements:

On-campus: Weekly unit elements are **lecture/tutorial** (2 hours) and **2 hour workshops**.

Off campus: Weekly unit elements are **individual self-directed learning activities, and team-based audit activities**.

Assessment of learning related to strategy:

Mid-term test (individual, online)	10% (30 questions, open book):
Hird & Co Portfolio (a two part assignment of which part 1 (15%) is team-based, part two (15%) – Performance review – is individual).	30%
Final examination	0% (closed-book).

How long the particular teaching strategy has been in use: Since the beginning of 2008.

Role in Bachelor of Accounting: To introduce students to the professional environment of the auditor, particularly auditing standards and practice statements, legal liability, ethics and current developments (e.g. Audit Expectation Gap). The unit covers audit methodology and planning, internal control and exposure to influences of EDP on audit testing. The course material, while drawing on audit theory, is very practically based for the needs of future audit professionals. Statistical and non-statistical audit sampling is also covered in detail (based on University handbook)

Essential texts:

Gay, G & Simnett, R 2007, *Auditing and assurance services in Australia*, 3rd rev. edn., McGraw-Hill, Sydney.

Roebuck, P & Martinov-Bennie, N 2007, *Case studies in auditing and assurance*, 4th edn., LexisNexis Butterworths, Sydney.

Weerasoria, WS 2002, *Butterworths business and law dictionary*, 2nd edn., Butterworths, Sydney.

Evidence available for success of strategy:

Below is a selection of the evidence for the success of the strategy:

1. When delivered in traditional teaching and learning mode, in which students predominantly remained passive learners, the unit had a history of high failure rates, averaging 36% in the last five offerings of the unit. The failure rate for the unit once redesigned for active learning and engagement was only 8.4%. Additional changes made to the teaching of the unit in the second half of 2008 led to significant improvements in all assessment tasks as well as the overall results (for more detail see Muldoon & Kofoed in press (b)).
2. A survey of students based on the seven principles of good teaching practice revealed that between 66.1% and 86.5% of students either agreed or strongly agreed with all of the questions in the survey (Kofoed & Muldoon 2008).
3. Exam markers reported an improvement in the quality and quantity of students answers in the exam papers for some of the traditionally weaker campuses. There was also a marked improvement in portfolio submissions across all modes of enrolments (Muldoon *et al.* 2008).
4. Increased attendance in class sessions reported by some campuses and active student discussion of course topics during the class and after hours, a significantly increased use of the unit website, all suggest an increased level of engagement by students ((Muldoon *et al.* 2008).
5. Recognition from CQ University for instructor Ms Jennifer Kofoed in the awards below for 2008:

- a) Innovative teacher of the Year 2008
 - b) Faculty of Business and informatics Award for Teaching Excellence 2008.
 - c) Currently preparing application for ALTC citation.
6. Recognition from business faculties at other universities about the scholarship and relevance of this research to improving accounting education practices
- a) Invitation to present seminar and workshop at University of New England
 - b) Invitation to present research project at Southern Cross University
 - c) Invitation to present at Research Seminar Series at University of Tasmania

Challenges

1. The success of this strategy largely depends on a high level of active engagement by all parties, i.e. students, teaching team, and curriculum designer/s. For example, during the delivery of this course many learning artefacts and aids were developed in response to newly identified problems. These reactive design interventions contributed significantly to the transformation of the students' perspective during the course, facilitating enhancements to the quality of student learning outcomes and illustrated the importance of on-going involvement of the designer (Muldoon *et al.* 2008).
2. To make this strategy succeed requires a large investment in time. The designers of this unit worked on the redesign over a period of nine months.
3. The cost of university access to multi-user virtual environments like Second Life is such as to make it desirable that the technology be used in a number of units.
4. Instructors may encounter student resistance to a different approach to learning.

References

- Kofoed, J & Muldoon, N., 2008, Educating Gen XYZ: strategies for facilitating active learning and engagement in accounting education, pending publication in the Proceedings of 9th International Business Research Conference, 23-26 November, Melbourne.
- Muldoon, N, Jones, D, Kofoed, J, & Beer, C., 2008, Bringing 'second life' to a tough undergraduate course: cognitive apprenticeship through machinimas. In *Hello! Where are you in the landscape of educational technology? Proceedings ascilite, Melbourne 2008*.
- Muldoon, N. & Kofoed, J., [in press (a)] 'Second Life Machinima: Creating new opportunities for curriculum and instruction', In *Proceedings of World Conference*

on Educational Multimedia, Hypermedia and Telecommunications 22-26 June 2009. Honolulu, HI: AACE.

Muldoon, N. & Kofoed, J. [in press (b)] 'Cognitive apprenticeship in accounting education: Preparing students for the profession', In *Proceedings of the 31st Higher Education Research and Development Society of Australasia Annual Conference*, Charles Darwin University, Darwin, NT Australia, 6-9 July 2009.

Contacts for further information on this strategy:

Jennifer Kofoed j.kofoed@cqu.edu.au

Nona Muldoon n.muldoon@cqu.edu.au