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 1

Final report

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Support for this project has been provided by the Australian Learning and Teaching Council, an initiative of the Australian Government Department of Education, Employment and Workplace Relations. The views expressed in this report do not necessarily reflect the views of the Australian Learning and Teaching Council Ltd.

2009

ISBN 978-0-6462-51691

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Executive summary

This project is a collaborative investigation into the changing skill set deemed necessary for professional accounting graduates over the next ten years and the strategies for embedding such skills into professional accounting programs. The goals for the 12- month project were to:

1. Identify whether there is a consensus as to the relative importance of key technical and non-technical skills for graduates of professional accounting programs to meet the challenges of the profession over the next ten years.

2. Identify the range of non-technical skills required of professional accountants over the next ten years.

3. Identify examples of best practice for the embedding of relevant non-technical skills in professional accounting programs.

4. Widely disseminate findings to accounting academics for use in accounting programs in the higher education sector and to other stakeholders, with presentations at seminars in each mainland state and at AFAANZ conferences.

In the first stage of the project, data were collected from interviews with these key stakeholders: employers of accounting graduates, including all Big 4, some mid-tier/niche and small accounting firms; the three professional accounting bodies; large and small companies; and the public sector across Australia. The project team also interviewed recent graduates and conducted focus group sessions with current accounting students. Interviews were transcribed and analysed, with the identity of individual participants concealed.

Common themes that emerged across the country were:

1. The technical skills required of graduates were essentially basic accounting skills, like debits and credits, although this varied by size of employers.

2. Non-technical skills were deemed to be very important in accounting graduates, particularly by employers in large organisations; communication, teamwork and self-management were regarded as the most desirable.

3. Graduates' skills deemed by stakeholders to be the most inadequate were communication and problem solving; their deficiency was also seen to be the most restricting to graduates in their career development.

In the second stage of the project, the project team distributed a survey to all 38 public universities seeking information about how non-technical skills were developed and assessed in all the relevant subjects required for accreditation by the professional accounting bodies. The non-technical skills used in the survey were those identified by the Business, Industry and Higher Education Collaboration Council (BIHECC) in its Graduate Employability Skills Report published in August 2007. The survey also invited respondents to share initiatives/strategies for the development of these nine non-technical skills.

We received responses to the surveys from 20 universities, and these responses yielded 18 teaching strategies for developing non-technical skills. We then contacted these respondents to elicit further information about each one. Most of the strategies were being applied at a unit level, and one was at the whole-of-program level. The project team has prepared an explanation of each of the 18 strategies and these are included as a second volume to our report and will be made available on the ALTC Exchange.

The project team has not passed any value judgements or assessed these initiatives/strategies. We do, however, provide a description of each initiative, the learning and teaching rationale that underpins it, and any evidence available about its success. Our report should enable accounting academics to select those initiatives that interest them and to have enough detail to trial the idea in their subject or program. To aid those who require further information about particular strategies, we have included the contact details of willing contributors.

Chapter 1 – About this project

Background

As part of the Australian Learning and Teaching Council's (ALTC, formerly the Carrick Institute for Learning and Teaching in Higher Education Ltd) Discipline-Based Initiatives Scheme, *Accounting for the future* aims to build on the Australian Business Deans Council (ABDC) scoping study '*Business as usual? A collaborative and inclusive investigation of the existing resources, strengths, gaps and challenges to be addressed for sustainability in teaching and learning in Australian university business faculties*' (Freeman et al. 2007). The project leader for *Accounting for the future* was a member of the steering group for the ABDC scoping project. The ABDC project identified issues within professional accounting programs that warranted a separate investigation to "build on prior work" (Freeman, 2007, p.6). In particular, the ABDC study identified significant problems with the accounting discipline, including: very large classes, with students drawn from a diverse range of disciplines and cultural backgrounds; chronic staff shortages, which are expected to worsen in the coming years given the ageing demographic of staff; lack of communication skills, particularly, but not exclusively, among international students; and tensions in the discipline arising from the number of pathways available for entry into the accounting profession and the potential challenges this creates for higher education accounting programs.

The remainder of this chapter is devoted, first, to the purpose for *Accounting for the future*; this is followed by an introduction to the project team members; and, finally, acknowledgment is given to key stakeholders for their vital support to the project.

The following quote from a key stakeholder in one of the professional accounting bodies, quoted in the ABDC scoping study, illustrates the concerns that *Accounting for the Future* aimed to investigate:

> *We require them [the universities] to show us where they're teaching the soft skills. We don't make them do a separate communication subject, but we ask them to show us where they're developing all of those oral communication, written communication, working in teams, and negotiation skills.*

The findings of Jackson, Watty, Yu, & Lowe, (2006a), another ALTC study, resonate with the ABDC scoping study findings. Jackson et al. note the concerns of employers regarding the perceived inadequate development in university accounting graduates of the other-than-technical skills that are required for employment in the accounting profession. "In particular and overwhelmingly, English language and professional communication skills are the areas of deficiency most often cited by graduate employers in Melbourne, Hong Kong and Singapore in this study" (Jackson et al. 2006a, p.18). Whereas these researchers struggled to find an agreed definition for some of the generic (non-technical) skills, such as 'thinking and acting critically' or 'acting strategically', their *Manual for Improving Assessment in Accounting Education,* (Jackson et al., 2006b) describes an approach to integrating communication skills and teamwork in an undergraduate program.

The Mathews report (1990) made a series of recommendations covering a broad range of issues for the accounting discipline; the two below relate to courses and teaching:

> *In the development and review of three-year undergraduate accounting courses, higher education institutions and course development and accreditation committees should look for evidence of a broad general education and the integration of communication and computing skills into the teaching and learning processes* (**Recommendation 4.3,** Australia. Review of the Accounting Discipline in Higher Education, 1990, p. xxiv).
>
> *All academic organisational units involved in teaching undergraduate accounting programs should integrate the different disciplinary units within the degrees, so that students may gain a co-ordinated understanding of how the disciplines interact in the business environment and the economy"* (**Recommendation 9.3,** Australia. Review of the Accounting Discipline in Higher Education. 1990, p. xxxi).

Findings in the Jackson *et al.* (2006a) project and in the ABDC scoping study suggest that the recommendations of the Mathews report are equally relevant today. The difference between then (1990) and now, it would seem, is that those expectations regarding graduate 'soft skills' have evolved to higher order skills, such as analytical and critical analysis, and ability to engage clients, negotiate and act strategically. This higher-skills expectation was also reflected in comments made at a Business Higher Education Round Table meeting held in Sydney in March 2007, where Professor Fred Hilmer (UNSW), in discussing particular skills valued by employers in the twenty-first century, identified written, oral and negotiation skills, and specific skills required of younger staff in managing an ageing workforce. A similar situation has been noted in a recent US report titled *Next generation accountant. A new outlook on a timeless profession* prepared by Robert Half International Inc.:

> *To succeed in tomorrow's accounting, finance and audit environments, council members said professionals need a wider range of skills than at any time in recent memory. Well-developed financial and technology abilities remain essential, but strong interpersonal and analytical skills are increasingly crucial for success…*
>
> (http://www.financialleadershipcouncil.com/preparing_tomorrows_workforce.html accessed August 3, 2007)

Furthermore, there is a considerable push by accrediting bodies such as The Association to Advance Collegiate Schools of Business (AACSB) for 'assurance of learning'. For accreditation to occur, each degree program needs to have its learning outcomes listed and mechanisms in place to demonstrate that students have actually acquired them. It was therefore timely for *Accounting for the future* to review the changing skill requirements for professional accounting graduates and to investigate the growing breadth of non-technical skills, including communication, interpersonal and critical thinking skills that, in the opinion of stakeholders, will be required of students graduating from university professional accounting programs over the next ten years.

Accounting for the future: more than numbers is a collaborative, Australia-wide project. Apart from reporting and analysing representative stakeholders' viewpoints about existing and required technical and non-technical skill development in Australian accounting programs, it presents strategies for embedding these skills in professional accounting programs. These teaching strategies will be widely disseminated to accounting programs in the higher education sector.

The project team – a representative group

- Professor Phil Hancock, the Project Leader, is Associate Dean, Teaching and Learning in the Business School at The University of Western Australia. He has been involved in accounting higher education for over thirty years, was a member of the executive of the Accounting and Finance Association of Australia and New Zealand (AFAANZ), and a member of the steering group for the ABDC scoping project.

- Associate Professor Bryan Howieson is Head of Accounting at The University of Adelaide. He has been in accounting higher education for over thirty years, is a former President of AFAANZ, and currently is a Vice-President of the International Association for Accounting Education and Research.

- Associate Professor Marie Kavanagh is Associate Dean, Faculty of Business at the University of Southern Queensland. She has been in accounting higher education for over thirty years, and is currently Chair of the Accounting Education Special Interest Group of AFAANZ.

- Dr Jenny Kent is Sub-Dean Teaching & Learning at Charles Sturt University, and has been in accounting higher education for over fifteen years.

- Associate Professor Irene Tempone is Head of the Accounting Economics Finance and Law Academic Group at Swinburne University of Technology. She has been involved in accounting higher education for almost thirty years.

- Dr Naomi Segal, a Lecturer at The University of Western Australia, is the Project Manager.

The project team adopted an action research methodology (see Chapter 4 for details), designed to provide a participative and reflective structure to the project. Thus participative processes, sharing reflective practice, and an orientation towards learning in action characterised the modus operandi of the project team.

Acknowledgements

The team wishes to acknowledge the support and assistance of the following people:

- Dr Elizabeth McDonald and the ALTC staff for their support and positive leadership approach, which helped foster such enthusiasm for the project.

- Professor Tim Brailsford, President of the Australian Business Deans Council, for his endorsement of the project on behalf of the ABDC.

- Sheena Frankel, General Manager, Chartered Accountants Program & Admissions, The Institute of Chartered Accountants in Australia for support of the project on behalf of the Institute.

- Kate Freemantle, then Director, Education and Training, CPA Australia for support of the project on behalf of CPAA.

- Lloyd Driscoll, General Manager, Learning and Development, National Institute of Accountants for support of the project on behalf of the NIA.

- Professor Barry Cooper, President of the Accounting and Finance Association of Australia and New Zealand for his endorsement of the project on behalf of the AFAANZ.

- Associate Professor Mark Freeman for his support of the project on behalf of the ABDC Teaching and Learning Network.

- Stephen Probert, Assistant Director of Business, Management, Accountancy and Finance Subject Centre of the Higher Education Academy in the UK for his support of the project.

- Associate Professor Kim Watty, Director, Teaching and Learning Unit, Faculty of Economics and Commerce, University of Melbourne for valuable feedback on the interview questions.

- Beth Tennent, Associate Dean Learning and Teaching, Faculty of Business and Informatics, Central Queensland University for valuable feedback on the interview questions.

- Patrick Boyle of Q Associates in his role as external evaluator.

- Dr Leonie Daws of Kihi consultancies for the NVivo data analysis.

We thank all participants in the study, including students, academic staff and the stakeholders in the profession, industry and professional associations for giving so generously of their time to be interviewed, to complete surveys, or to assist in the dissemination workshops.

We also wish to thank The Australian Learning and Teaching Council for its generous financial support for this project. The application was funded from October 2008 for approximately $100,000 for initially a 12-month period, extended to 18 months.

Chapter 2 – Project rationale, objectives and outcomes

Project rationale

Previous work, such as the Access Economics Report (2005), has clearly identified that business education adds considerable value to the Australian economy, the higher education sector and the individual in the form of higher taxation revenue, personal income, and greater productivity. Previous investigations have provided valuable sector-specific information about learning and teaching issues confronting business education. Researchers are now investigating how to establish sustainable student learning experiences and outcomes. This project focuses specifically on accounting education in the tertiary sector.

Up until the global financial crisis the Australian economy was experiencing very high growth and accompanying this growth was a huge demand for accountants. Accounting is a popular study option for many domestic and international students. It has been listed on the Migration Occupations in Demand List since September 2004, and for students who hold a first degree in another discipline area, postgraduate conversion courses can be completed in two years.

It is difficult to obtain numbers for professional accounting graduates because the Department of Education, Employment and Workplace Relations' (DEEWR) figures for course completions in universities report only management and commerce course completions, and professional accounting forms part of this broad field of education. However, in a recent report for CPA Australia (CPAA) on *The Changing Face of the Accounting Profession in Australia,* Dr Bob Birrell states:

> *The number of professional accountants employed in Australia has grown strongly, increasing from around 100,000 in 1995-96 to just over 140,000 in 2005-06. However, there has been little increase in the training of domestic accountants over the past decade. Much of the growth in the employed accounting workforce has been drawn from recently arrived migrants.* (Birrell 2006, p.1)

The Birrell report notes that many of the graduates from postgraduate conversion courses are not working in professional accounting firms because "[although]… such graduates are generally technically proficient and usually possess a strong work ethic, the problem lies with their communication skills" (Birrell 2006, p.16).

Using data from 2006-2007, Birrell is quoted in an article in the Higher Education Supplement of the *Australian* by Lane (*The Australian* Higher Education Supplement, 14 January 2009, p.26) "more than a third of overseas students who secured visas as Australian-trained accountants had worryingly low English language skills".

The professional accounting bodies are so concerned with the level of communication skills of overseas accounting graduates that they have jointly developed a Skilled Migration Internship Program Accounting (SMIPA), which was offered for the first time in Australia in 2009. This program co-developed by the Institute of Chartered Accountants in Australia (ICAA), CPA Australia (CPAA) and the National Institute of Accountants (NIA) is a 12-months professional year program aimed at overseas students recently

graduated from accounting programs and unable to find professional accounting employment. The objective is to provide work experience to students while assisting with the development of their communication and teamwork skills.

In 2007 the Business Industry and Higher Education Collaboration Council published a report on *Graduate Employability Skills* identifying eight key employability skills important for graduates in business. This report highlights concerns beyond communication skills for all students taking degrees in business, including accounting.

Project objectives

Accounting for the future does not address the issue of the number of university places made available for professional accounting students. Proposed changes to the English language competency tests will have some impact on the level of communication skills of future graduates from overseas. However, it can be anticipated that the alleged ability of students to circumvent such English competency screening tests will continue. In any case it is the goal of this project to review the skill requirements for professional accounting graduates in the next ten years and to investigate the growing breadth of non-technical skills required by stakeholders. This should add value to the higher education professional accounting sector by identifying and describing examples of effective teaching strategies for embedding a variety of highly sought communication skills into teaching programs.

To aid them in this goal, the project team defined its interim objectives.

Interim objectives:

- *To establish whether there exists a general consensus about the relative importance of key technical and non-technical skills for graduates of professional accounting programs who have to meet the challenges of the profession over the next ten years, and, if a consensus exists, to establish the parameters by interviewing key stakeholders.*

- *To identify the range of non-technical skills required of professional accountants over the next ten years by interviewing key stakeholders.*

- *To survey the university sector about existing teaching practices, the perceived level of skills development effectiveness, and priorities.*

- *To identify examples of effective teaching strategies for the embedding of relevant non-technical skills, including communication, in professional accounting programs.*

- *To widely disseminate findings to accounting programs in the higher education sector and other stakeholders using this report, Australia-wide dissemination workshops, professional conference presentations and proceedings, other presentations, and the ALTC Exchange.*

Project outcomes

The outcomes of the project are:

- *a comprehensive literature review (Chapter 3 of this report)*– to be used with previous disciplinary and generic project outcomes to identify strategies for the teaching and embedding of non-technical skills;

- *this report* – on findings, strategies and recommendations for the ALTC on the importance of technical and non-technical skills and various initiatives for the teaching of non-technical skills in accounting programs in Australian universities; and

- *a supplementary report (Volume 2 of this report)* – with more detailed explanation on all the initiatives submitted to the project team, ranging from a component in an individual unit through to a whole-of-program approach (also available on the ALTC Exchange website).

Chapter 3 - A review of scholarly literature

Introduction

In spite of many initiatives to improve graduate employability skills of accountants in Australia, the development of these skills has remained as problematic as in other disciplines (Green, Hammer & Star 2009, Star & Hammer 2007). Perhaps this should not surprise in an unpredictable and intensely competitive global market, where new entrants to the profession find that the role of the accountant has expanded beyond narrow disciplinary knowledge to include, for example, strategic management, and risk and change management (Parker 2001, Jones & Abraham 2007). In this environment, accountants require an ever broadening range of personal and interpersonal attributes or skills, including adaptability (Harvey 1999, p.7), proactivity (Howieson 2003), and expert communication and people-management skills.

It should also not surprise that periodic surveys of Australian employers' and practitioners' expectations and assessment of accounting graduates continue to reveal gaps; for example, in critical analysis and rating of ethical standards (Jones & Abraham 2007); and in behavioural skills (listening and questioning skills) of, for example, financial planners (Jackling & Sullivan 2006). Most recently, Kavanagh & Drennan (2008) confirmed and elaborated on these gaps by documenting unmet employer expectations of graduates in the areas of:

> *…strong background knowledge . . . growing experience of life and work . . . general business awareness, knowledge of ethics and the profession, ability to work across the disciplines and interpersonal skills.* (p.294)

There are various explanations for the persistence of these perceived skill gaps. Leveson (2000) nominates as contributing factors the imprecision both of concepts such as 'generic skills' (non-technical skills) in general and particular generic skills statements. (Table 3.2, below, illustrates the lack of agreement about the terms to describe non-technical skills). In addition, Leveson critiques the assumptions that the skills are applicable to diverse and contrasting work environments and that they are transferable from the university environment to the workplace. Both assumptions have yet to be validated. Furthermore, educators and employers have different approaches to the measurement of these skills. Barrie (2004) identifies the absence of a conceptual framework and theoretical underpinning for 'graduate attributes' and generic (non-technical) skills, which encourages different understandings of the 'teaching and learning processes' necessary to enable the skills to be developed. The absence of a conceptual framework also contributes to lack of enthusiasm among academics for initiatives to develop such skills. Parker (2005) provides a contextual explanation in which, *inter alia,* corporatisation and commercialisation of Australian universities, and the accompanying work intensification and casualisation of the academic workforce, militate against curriculum revisions. Whitefield & Kloot (2006, 2007) attempt to provide a point of reference to academics designing curricula and struggling with operationalising skills that have multiple meanings, but eventually conclude that the nature of the definitions 'remains inherently fuzzy' (2006, p.24). Green, Hammer & Star (2009, pp.17, 19) are more emphatic, characterising the skills definitions as lacking 'conceptual clarity' and suffering from 'theoretical nebulousness'. The advice from these authors is nevertheless to engage in [teaching] practice on the assumption that 'practice can sometimes serve to sharpen theoretical understanding' (p.20). Such

exhortations coincide with regulations that have made funding to Australian universities conditional on developing graduate attributes (Green et al. 2009, p.18). The authors observe, however, that the response of universities to this decree has been patchy (p.18, citing Barrie 2005, Hager, Holland & Beckett 2002).

Some of the teaching practice for non-technical accounting skills both in Australia and beyond is reflected in the literature emerging around each skill. What follows are select literature review samples for each of the skills.

We have not included in this review the important work of Australian practitioners who, as part of *Accounting for the future* shared their personal practice of developing and improving the non-technical skills of accounting graduates. Their practice and published work are described in Volume 2 of this report.

Some recent examples of strategies to develop non-technical skills

Written communication skills

Sin, Jones & Petocz (2007) perceive all non-technical skills required of accounting graduates to have a linguistic, hence a communication, dimension. Their review of innovative interventions to improve written communication of accounting students includes Friedlan (1995), who made 'extensive use of contextualized mini-cases . . . class room discussions and critical-thinking skills' (p.147) and demonstrated the impact on student perceptions of accounting practice of interactive teaching (p.147). They also refer to Mohrweis (1991), English *et al.* (1999), Ng *et al.* (1999), Ashbaugh *et al.* (2002), and Tindale *et al.* (2005), all of whom used writing components additional to the regular accounting curriculum and/or additional detailed feedback on the non-technical elements of the learning (p.147). Some recent additions to the literature as discussed by Sin, Jones & Petocz (2007) follow below.

Stout & DaCrema (2004) describe their intervention in students' faulty use of modifiers.[1] The strategy involved a handout to students sensitising them to the pervasiveness of faulty modifiers and to their correct use, in-class discussion of the handout, and testing of the intervention by collecting assessment data (both direct and indirect) from two institutions in which the intervention was applied. Inexpensive and unobtrusive, the intervention proved 'valuable in remedying discrete weaknesses of student writing' (p.289). It could also serve as a model to address other grammatical problems. The article includes the handout and the written communication skill assessment quiz.

Lynn & Vermeer (2008) employed a structured writing program that was representative of the writing experiences that students, as recent accounting graduates, could expect in the workplace. They achieved this realism by developing an individual scales instrument with which to assess the structured writing exercises (a series of memos to clients including, in some instances, spreadsheets) in two intermediate accounting courses, which enabled more effective grading of writing and specific feedback on workplace writing skills (as

[1] Quoting Stout & DaCrema (2004, pp.314-315): 'A modifier is a word or phrase that changes, in one way or another, the characteristics of the thing (e.g. verb, noun, or phrase) modified. ''He ran quickly.'' ''Quickly'' changes or modifies the characteristics of ''ran''. ''Ran'' is an unadorned, stripped-down version of the action.' Faulty modifiers hinder understanding.

compared to academic writing skills). The assessment instrument included scales for evaluating organisation, style, and tone. Realism was further enhanced by using Business Advisory Board members to evaluate the improvement in students' writing, but only after reviewing the advisory board members' qualifications for the task. The ratings by the Business Advisory Board indicate that the overall quality of student memos improved in the area of organization, style and tone, as well as meeting the requirement of the assignments. This means that they were better able to explain the technical aspects of accounting work to a non-accountant. The article includes a detailed schedule of the assignments in the two intermediate courses, a pre-test and post-test assignment and the evaluation instruments provided to the Business Advisory Board members involved in the grading.

Sloan & Porter (2008) describe the background, research and preliminary findings of a program to provide English language support to international business students, concurrent with their subject modules, in the Newcastle Business School at Northumbria University. The program designers developed the CEM [contextualisation, embedding and mapping] Model which 'identified contextualisation, embedding and mapping as the foundation for improving' (p.51) such support programs. The program promotes and sustains collaboration between the language instructors and the subject specialists so as to increase students' opportunities to learn. The program has increased students' understanding of the link between the support program and the subject-specific module and, thereby, attendance figures of the support program.

Oral communication skills

Strategies to enable development of oral communication skills of accounting students are often linked to communications apprehension studies (Aitken & Neer 1993, Hoffman & Sprague 1982, Myers & Rocca 2001) and to class discussion, as Dallimore, Hertenstein & Platt (2008) observe (p.164). The benefits of class discussion, through its 'emphasis on active learning', impact on the development of problem solving and critical thinking skills, as documented by Dallimore, Hertenstein & Platt (2004, 2006), who advocate grading class discussion, including students who are cold called (that is, they have not volunteered to participate) so as to 'extend the benefit of in-class discussion to all students' (cited in Dallimore, Hertenstein & Platt 2008, p.163). Active student preparation (in this instance second term American MBA students taking a management accounting course) and participation in class discussion 'can be linked to students' reports of improved oral and written communication skills' and 'discussion can be a useful addition to cross-curricular programs, such as writing and speaking across the curriculum and stand-alone courses, such as public speaking' (p.63).

Anderson and Mohrweis (2008) provide examples of rubrics that are useful in assessing accounting students' acquisition of skills, including writing and oral presentation skills. Grace & Gilsdorf (2004) utilise 'communication-to-learn' exercises which combine oral communication activities with accounting course content and work. They aim to minimise changes to existing course structure and grading approaches. The exercises consist of four presentation tasks of increasing difficulty and length (two are one minute each, two are about five minutes each) only three of which are graded. The first is an ungraded self-introduction task for students containing half a dozen facts about themselves, the second is a graded five-minute presentation of a simple accounting exercise assigned to each student, the third a graded one-minute response to an instructor's question, and the fourth a graded

five-minute summary of a current business news feature. Whereas each exercise has a slightly different purpose, three of the set tasks 'ground the student in the comfortable territory of technical knowledge' but also 'force the student to communicate this knowledge to outsiders' as well as providing the instructor with feedback on the students' level of understanding (p.169).

Teamwork (cooperative learning)

In 2001, Lancaster & Strand reported that 'accounting educators have only recently reported on the use of this pedagogical method [cooperative learning]' and that 'accounting education has yet to arrive at a consensus of opinion regarding the efficacy of cooperative learning' (cited in Gabbin & Wood 2008, p.392). Even by then, however, over 900 research studies provided evidence for the effectiveness of this method of learning (p. 392). Since then, the literature, even in relation to the use of the strategy in accounting alone has grown to an extent that makes it difficult to summarise here (see Gabbin & Wood 2008, pp.393-395). The selection here is from the extensive literature of the last three years alone.

Kennedy & Dull (2008) demonstrate the value of integrating into team assignments training in and use of specific meeting management techniques intended to focus and guide students (e.g. agendas, surveys, action plans). The authors also provide assignment suggestions on how to integrate these techniques into team assignments in particular accounting disciplines (e.g. audit, managerial, systems, or tax).

Hwang, Lui & Tong (2008) replicate their 2005 study and demonstrate again that cooperative learning is a more effective learning and teaching strategy for students raised and educated in a passive learning environment (traditional lectures).

Lightner, Bober & Willi (2007) describe a pilot study in which ready access to technology and innovative collaborative opportunities created an environment capable of engendering student engagement, in which the focus was on group processes rather than achievements and the emphasis was on the dynamics of teaming. The course was a graduate-level financial accounting course.

By contrast to the work of Hite (1996), who demonstrated a positive effect on accounting students' final exam scores after they participated in a group exam compared to those taking only individual exams, Gabbin and Wood (2008) found no such effect, a result which should encourage some scepticism in relation to group work. Riordan, Riordan & Kent St. Pierre (2008) point out that contrary to other disciplines, accounting educators have neglected to subject group work to critical analysis, most specifically in relation to the phenomenon of 'groupthink'. (Groupthink causes group members to passively absorb the dominant ideas and values of the group, resulting in ethical and intellectual 'dumbing down' of the group and often in poor decision making (p.190). The authors suggest general strategies to counteract groupthink, as well as remedies for specific situations. Their overall advice to accounting educators, however, is to approach new pedagogies critically and avoid becoming victims of groupthink themselves.

Perhaps the most significant development in cooperative learning/team learning is Team-based Learning (TBL) as set out in Michaelsen, Knight and Fink (2004). According to its developers, the principles underpinning this approach are: (i) rather than a series of independent small group activities, the instructional strategy is a set of sequenced and

linked learning activities that work together synergistically to create a high level of energy that students can then apply to the learning task; (ii) small-group work is the primary in-class activity; (iii) using the instructional strategy will usually require restructuring a course to the extent that the activities need to fit in with a particular lesson, usually leaving the remainder of the course unchanged; and (iv) team-based learning revolves around team development, a social unit quite different from groups (characteristics of teams are a high level of individual commitment to the welfare of the group and a high level of trust among the members of the group). The literature reports on the success of the technique in a variety of disciplines (for example, medicine, nursing, health sciences, general embryology) and though it is currently being used in accounting education (for example at University of Sydney and at UWA), published literature on use of TBL in accounting education was not available at the time of writing.

Critical thinking skills

Baril et al. (1998) cites Deppe et al. (1991, p.276) who:

> *…conducted a literature review to identify general competencies considered as essential by professional accountants at the time new hires enter the profession. Each study they reviewed emphasizes that critical thinking and problem solving are important prerequisites to success in the profession.*

Clearly, it is not necessary to establish that critical thinking and problem solving is inherent in some form to all skills described as non-technical skills or graduate attributes. At the same time, an element of creativity and innovation has been added to the more traditional definition by professional bodies, which extends understandings of problem solving beyond traditional critical thinking and makes examples of teaching strategies which exemplify it harder to find. An exception is perhaps McWilliam & Dawson (2008) who observe a loose connection between 'creative learning outcomes' and problem solving and thinking skills in higher education policy but also the lack of definitional clarity associated with the term (p.636). The link is present in employers' consensus about the importance of 'imagination/creativity' as a quality in graduates, enabling them to focus less on 'routine problem-solving [than] . . . on interactivity, navigation capacity, forging relationships, tackling novel challenges and synthesising "big picture", scenarios' thereby providing a 'competitive commercial edge' (p.635). Though not specifically concerned with accounting education, McWilliam & Dawson's attempt to assemble a number of principles from a range of disciplines to enable educators to orchestrate 'a creativity-enhancing [learning] environment' (p.633) is likely to assist instruction in problem solving accounting.

Tonge & Willet (2009) develop an intellectually challenging management accounting assignment over 10 years which can be readily adapted to other subject areas and which requires students to write an article on a set topic (an example is: 'Environmental Management Accounting & Accounting for Quality: Do they have a common purpose?', p.213).

The assignment enables students to develop critical thinking (analysis, reflection and evaluation, p.209), research and written communication skills as well as presentation skills. Its features are:

- research-informed learning;
- illustrations of both exemplar and threshold performance provided to students at an early stage;
- an assignment brief and marking scheme;
- multiple opportunities to receive timely, specific, ungraded formative feedback from the teaching team;
- an opportunity to reflect on the learning process and outcome of the assignment; and
- availability of a 'premiere class library' compiled from the best previous student submissions (p.208) as well as examples of previous work at 'threshold' levels of performance (p.212).

Tate & Grein (2009) engaged auditing students in an interactive exercise to design and implement a sampling plan: '[s]tudents are asked to opine on a bakeshop owner's assertion that every chocolate chip cookie baked has at least seven chocolate chips' (p.161). The exercise, focused on active learning, was developed over six years covering 15 audit classes at three universities and is designed for use in an introductory auditing course at undergraduate or graduate level. The task selection intended to avoid direct audit-related tasks so as to allow students to concentrate on the sampling process rather than on auditing tasks with which they were not fully familiar (p.161). The article includes a detailed description of the exercise (including engagement planning, pre-and post-test survey questions, possible extensions of the activity, the recipe for baking cookies and alternatives to cookie baking).

Dewett & Gruys (2007) report on an MBA course centred on developing creativity and innovation in organisations. The authors use readings from business journals (both popular and academic) to try to engage MBA students with core course concepts, personal journal writing to record intersections of insights arising from the course experience and their working life. Other activities push students to experience risk, reflect on the experience, and move towards experiential learning, including completion of unfamiliar tasks to raise their sense of self-efficacy.

Problem-based learning

Problem-based learning (PBL) assists students to think critically, analyse complex, authentic problems and solve them (Hansen 2006). The process enables students to develop information literacy, communication skills, cooperative learning and lifelong learning skills as well as content knowledge. A PBL problem can engage higher cognitive skills than 'a typical end-of-chapter problem'. Hansen describes how to write a PBL problem on the topic of auditing long-term debt and pitch it to different levels. He also provides an example for each level (2006, pp.223-224).

Wilkin & Collier (2009) embrace a new accounting education pedagogy that focuses on learning about processes. Using design science methodology, they create 'authentic learning activities . . . to support learning about processes from an accounting perspective'. The activities involve a case study that 'entailed configuring an enterprise system with an authentic replica of business information and processes for student use'. Student use at Monash University demonstrated the feasibility of the design. The authors further illustrate

that the concepts can be successfully applied with large and small cohorts. Success depends, however, on strong commitment of unit co-ordinators and departments, requiring not only a financial commitment but also resource allocation administrative support and ownership of the value of the undertaking. Lucas (2008) provides details of playful activities in an undergraduate auditing course that induce students to question taken-for-granted assumptions about both themselves and the subject of auditing, that is, to engage in and become aware of the value of critical thinking.

Ethics

D'Aquila (2008) reports on and describes integration of Securities and Exchange Commission (SEC) Accounting and Auditing Enforcement Releases (AAERs) into financial auditing classrooms to enable learning of auditing and ethics-related concepts. The article includes suggested discussion questions and sample assignments. Ghaffari, Kyriacou & Brennan (2008) explore efforts of U.K. higher education institutions to integrate ethics into the accounting curriculum and report that teaching of accounting ethics in U.K. universities is 'very largely embedded within financial accounting and auditing courses rather than delivered as a stand-alone ethics course' (p.191). Hurtt & Thomas (2008) examine recent implementations of a three-semester-hour course in ethics (i.e., 30 semester credit hours) as a pre-requisite education requirement for CPA examination candidates in Texas. They report that 'the vast majority of courses followed mixed models, that is, models that incorporate ethical theory, decision making, codes of conduct, and coverage of other ethical values, as well as a combination of lecture, case study, and moral dilemma'. Only a few courses 'follow a social responsibility, ethical code, or virtue-ethics approach' (p.45).

Self-management and planning and organising

Whereas some recent publications in business education dealing with the teaching of self-management skills in business education (Gerhardt 2007), the recent accounting education literature deals with this skill, and the skill of planning and organising, as incidental to or bound up with cooperative learning and teaching strategies (see, for example, Dyball et al. 2007, p.145; McWilliam & Dawson 2008, p.638). An exception is Abraham (2007), who compares blended learning of accounting by engineering students with learning by traditional approaches. Blended learning involves face-to-face interaction as well as online methods. It is student centred and allows students to self-pace their learning, encourages active learning strategies and peer-assisted learning (p.2), but it balances the online method with live interaction. It enables students to assume more responsibility for their learning and to achieve deep learning (p.2). A comparison of the two methods of delivery to two different cohorts over two semesters demonstrated that student motivation and grades (as reflected in both in-session tests and final examinations) improved significantly under the blended delivery method. Furthermore, the average number of times that students attempted weekly questions was higher for students learning via the blended approach, even though the questions were not compulsory. This demonstrates the increased degree of self-management assumed by students under this method (p.7).

Lifelong learning, initiative and enterprise

Candy (1995, 2000) places producing lifelong learners at the heart of the university's educative endeavour while acknowledging that graduation 'marks the beginning of the graduate's need for continuing personal and professional learning' (2000, p.261).

'Action-based' learning by students in the workplace encourages autonomy, responsibility and ability to 'exercise discretion and make fine discrimination' in technically and socially complex situations (Bates 2008, p.306). Also known as work-integrated learning, experiential learning, situated learning or work-integrated learning; action-based programs in the workplace involve 'structured strategies' that integrate academic studies with work experience relevant to the students' chosen academic or career goals (Abeysekera 2006, p.8 citing Groenewald 2004). Intended to achieve applied and problem-based knowledge of real world situations, such programs come in diverse forms including internships, work placements in which learning is contingent (p.9), and service learning or community service programs managed through faculty and having carefully supervised learning objectives and reflective processes (p.10). Whereas all three forms are classed as contributing to lifelong learning, the difference between service learning and other forms of work-integrated learning is that service learning contributes not only to improved problem solving skills, but also to civics education (Star & Hammer 2007).

Beard (2007) reports on the assessment tools used in an internship program at Southeast Missouri State University. Assessment tasks include student self-evaluation, student program evaluation, participation in an exit interview as part of an evaluation by the on-site supervisor, a written report, maintaining a diary/journal, and an oral presentation. Student learning as assessed via these tasks can be linked to the AICPA core competencies by means of a chart provided by the Institute (pp.218-219). Beck & Halim (2008) report the learning outcomes for undergraduate accounting interns in Singapore, noting especially the importance of the internship for personal and interpersonal skills (adaptability, self-efficacy and learning to work under pressure). Chiang (2009) shares the experience of designing and integrating service learning projects into management accounting courses. The projects were a strategic financial analysis for a community farm and analysis focused on the costs of forming a domestic violence response team for a community service organisation receiving limited funding. Group assignments, especially students' reflective activities over a 15-week period, encouraged 'lifelong learning modes' but also required problem-solving, communication, time-management, and teamwork skills.

Ability to deal with diversity, including intercultural competency

Based on the AACSB's 2008 *Eligibility procedures and standards of accounting accreditation,* ability to deal with diversity means recognising and valuing the importance of cultural and intellectual diversity and sensitivity and thinking from a global perspective (pp.11-12). That component of the Australian concept that deals with valuing cultural diversity ('ability to deal with diversity') is internationally more commonly referred to as 'intercultural competence or competency.

Deardorf (2006) documents 'consensus among top intercultural scholars on the definition and assessment methods of intercultural competence', develops two models of the skill, and provides an assessment inventory guide on request. Conclusions of the study are, *inter alia,* that it is possible to measure intercultural competence, though to do so is a complex

undertaking, that multiple assessment methods, primarily qualitative, be used, and that the definition of 'intercultural competence' continues to evolve. One of the study's recommendations is that the development of intercultural competence be recognised as an ongoing process, and therefore assessed 'throughout time' (p.259). Hunter, White & Godbey (2006) advance definition, understanding and modelling of the concept 'global competence', and the knowledge, skills, and attitudes necessary to attain such competence. In addition, their survey of 133 representatives of self-selected universities outlines the curricular changes necessary to develop global competence at university level. Of recent studies that deal with particular pedagogical strategies to enable students to develop intercultural competence, Antal & Friedman (2007) provide teaching approaches in a business school context. Their specially designed course that can be adapted to weekly sessions, guides students in their group work, to examine the 'difficult intercultural situations they experienced', and uses role play to 'experiment with alternative responses' (p.363). The article includes some teaching materials. No recent publication was found that deals specifically with teaching strategies enabling accounting students to learn to deal with diversity.

The preceding sections provide only a sample of the rich and growing literature about developing and improving the non-technical skills of accounting students. The sample was selected based on the most recent publications highlighting successful and innovative practices. The definitional problems highlighted in the introduction to this chapter made listing and organising the examples difficult, especially so in relation to the skill of lifelong learning. The one omission in the preceding review relates to technology, which usually refers to basic IT skills, willingness and ability to learn new IT skills and the manual dexterity to apply them. It is a measure of the rate of change in this area that in 2009 it is expected of accounting students that they will acquire these skills independently of, or incidentally to, their university training.

Table 3.1, below, lists some major interventions in accounting education where the project team were able to access copies of the report, both in Australia and overseas, since 1986. The table provides a selection of the key recommendations arising from these interventions either from the reports themselves or from the literature that developed around them.

Table 3.1. Interventions in accounting education, Australia and overseas

Date published	Author and/or sponsoring or issuing organisation	Title of report	Recommendations relevant to this report
1986	American Accounting Association, Committee on the Future Structure, Content, and Scope of Accounting Education (Bedford Committee)	*Future Accounting Education: Preparing for the Expanding Profession*	It is desirable (1) to expand perception of accounting from a narrow discipline to a broad process of information development and distribution requiring five years or more of university education, (2) to defer specialised accounting courses to the end of this period, (3) to improve students' ability to deal with innovation by designing interactive classroom sessions focusing on unstructured problems so as to instil a curiosity for learning which will serve as a foundation for lifelong learning. The major reorientation of accounting education in line with these recommendations should take place by the year 2000.
1988	Joint Standing Committee of the ICAA and the ASPCA in conjunction with the AAANZ	*Task Force for Accounting Education in Australia*	'Higher education institutions should progressively alter the required content of their undergraduate degrees to permit greater flexibility and facilitate later specialization; the duration of basic accounting studies should be the equivalent of four years' full-time study' (three years u/graduate and one post graduate') (Tippett 1992)
1989	American Accounting Association (AAA) Committee on the Future Structure, Content and Scope of Accounting Education and the Big Eight accounting firms (Bedford Committee)	*Perspectives on Education: Capabilities for success in the Accounting Profession [The Big White Paper]*	Emphasised the need for change in academic programs to address student skills development. Suggested forming the Accounting Education Change Commission to which it pledged up to $4M.
1990	Accounting Education Change Commission (AECC)	*Objectives of education for accountants: Position statement number 1.*	The overriding objective of accounting education is to establish a foundation for students to develop a program of lifelong learning. The component of this foundation are (1) skills (communication, interpersonal, and intellectual), (2) knowledge (general, organization and business, and accounting) (3) professional orientation. Although a single model of accounting education was not considered appropriate for all programs, the AECC notes that accounting programs should emphasize learning by doing, working in groups, and the creative use of technology (Rebele et al. 1998, p. 4).

Date published	Author and/or sponsoring or issuing organisation	Title of report	Recommendations relevant to this report
1990	Mathews Commission	*Accounting in Higher Education: Report of Review of the Accounting Discipline in Higher Education*	A fourth year of study be introduced by 1995 as a one-year postgraduate diploma in professional accounting or as a Master of Professional Accounting
1993	Institute of Chartered Accountants in England and Wales (ICAEW)	*Chartered Accountant – The future of our qualification*	The members of the ICAEW agreed on a definition of 'the chartered accountant for the future' - CA's must possess 'proven ability and intellectual capacity, an understanding of basic accounting principles, technical skills in accountancy, adequate experience in practical situations, and high personal standards. Changes in accounting examinations have been made to facilitate the evaluation of candidates for membership in the Institute according to its definition of the chartered accountant for the future. However, it has been pointed out that professional examinations do not measure all the relevant characteristics of such accountants. Suggestions for overcoming the limitations and risks of examinations are offered' (http://www.faqs.org/abstracts/Business/Assessing-the-chartered-accountant-for-the-future-US-accountancy-regulator-branded-unconstitutional.html).
1994	Institute of Chartered Accountants	*Chartered Accountants in the 21st Century*	Broaden acceptable accountancy degrees and entry routes to bring new skills to the profession. Replace current routine, predictable and boring teaching with innovative instruction (Abdolmohammadi, Novin & Christopher 1997).
1994	Siegel & Sorenson, commissioned by the Institute of Management Accountants (IMA) and the Financial Executives Institute (FEI)	*What Corporate America wants in Entry-level Accountants*	As, in the main, accounting graduates were judged by corporate executives from a cross section of industries ill-prepared for entry-level jobs in the corporate sector, it was considered necessary to restructure the accounting curriculum to meet the needs of corporate customers (Rebele et al. 1998, p.4).
1995	American Accounting Association Administrators of Accounting Programs Group (AAPG) Practice Involvement Committee (Bullock Committee)	*Accounting faculty/practitioners partnership to address mutual education concerns*	Recommends changes in attitude, joint action and commitment to a personal, ongoing involvement aimed at achieving productive changes in accounting education between accounting practitioners and educators

Date published	Author and/or sponsoring or issuing organisation	Title of report	Recommendations relevant to this report
1998	Institute of Chartered Accountants in England and Wales (ICAEW)	*Creating the Added-value Business Advisor*	Proposed curriculum reform to distinguish core and elective subjects defeated by membership
1998	American Accounting Association, Changing Environment Committee	*The Future Viability of Accounting Education*	Warns about the threat posed by non-traditional deliverers of accounting education, such as the corporate university
1998	Institute of Chartered Accountants in Australia	*The Vision 2020 Taskforce Report: Chartered accountancy into the next century- radical change or diminished influence?*	CAs of the future will need both generalist and specialist knowledge (Parker 2001).
1998	American Institute of CPAs (AICPA)	*Vision 2011 project*	CPAs must become market driven and not reliant on regulation to keep them employed, and . . . the market is now demanding less audit and accounting and more value-added services (Parker 2001).
1999	AICPA	*The CPA Vision project: 2011 and beyond*	Developed vision statement along with prospect for a new professional qualification 'as part of a full scale effort to reposition both general professional knowledge and the nature of professional claims. The expert system of accountancy was to be tied to a new and more general professional argument'. Hoped for a 'broad based business advisor credential that would more easily encompass the full range of services that accounting firms provide. . . a truly global brand that leverages the ethics and standards of a profession but can embrace people with broad business knowledge and proven competencies' (cited by Fogarty et al. 2006).
1999	Siegel, G. & J.E. Sorenson for the Institute of Management Accountants	*Counting More, Counting Less: Transformations in the Management Accounting profession*	Observations: Since 1995, there has been an increase in management accountants working on cross-functional teams. Management accountants spend more time communicating with people in their firm than five years ago. Universally, respondents agree that good interpersonal skills are essential for success. **Skills needed for success**. The 1999 Practice Analysis respondents were asked to describe the most important KSAs necessary for success. They are: Communication (oral, written, and presentation) skills, ability to work

Date published	Author and/or sponsoring or issuing organisation	Title of report	Recommendations relevant to this report
			on a team, analytical skills, solid understanding of accounting, an understanding of how a business functions. Recommendations for educators: The insights gained from the 1999 Practice Analysis should be used to address needed curriculum changes (Russell et al. 1999).
2000	Albrecht, W.S. & Sack, R.J. Sponsored by the American Institute of Certified Public Accountants (AICPA), The Institute of Management Accountants (IMA), the American Accounting Association (AAA), and the Big 5 professional service firms (Arthur Andersen, Deloitte & Touche, Ernst & Young, KPMG, and PricewaterhouseCoopers); published by American Accounting Association, Sarasota, FL.	*Accounting education: Charting the course through a perilous future*	Addresses the need to improve the academic preparation of accountants for entry into the profession... specifically encourages accounting educators to revise curricula to meet the changing requirements of business employers…[provides] a guide [to] curriculum revision decisions …also focus . . . attention on addressing student deficiencies in the knowledge, skills, and abilities possessed by entry-level accountants (Johnson et al. 2008, p.252).
2005 & 2006	International Federation of Accountants (IFAC), International Accounting Education Standards Board	*International Education Standards for Professional Accountants (IESs)*	'Prescribe the essential elements of education (including practical experience) necessary to become a professional accountant, and the ongoing education requirements once qualified as a professional accountant' (Saville 2007, p.107)
2006	Birrell, B. for the CPA	*The Changing face of the accounting profession in Australia*	As the migration solution to filling shortages in Australian accountant graduates has failed (many graduates are not achieving professional level appointments), these policy responses are required: either an expansion in domestic training, or a reform of the rules governing the selection of migrant accountants. The Government declared its intention to raise the minimum level of English required for applicants. 'The accounting accrediting societies have a role in reviewing the standards they use to certify the curriculum requirements that accountants trained in Australia and overseas must meet. Another solution is to require a minimum of occupational experience before permitting a migrant

Date published	Author and/or sponsoring or issuing organisation	Title of report	Recommendations relevant to this report
			with accounting qualifications to be allocated MODL points. [based on conclusion].
2007	Freeman et al. for the Australian Business Deans Council	*Business as usual? A collaborative and inclusive investigation of the existing resources, strengths, gaps and challenges to be addressed for sustainability in teaching and learning in Australian university business faculties*	1. ABDC T&L Network select project teams to develop funding applications for the future ALTC (Carrick) Institute funding round based around these three follow-on proposals. 2. ABDC and T&L Network develop the appropriate structure and processes to appropriately manage and assure the quality outcomes of the three follow-on proposals. 3. ABDC and T&L Network develop a national reference group to support sustainable industry engagement and that a primary role be to assist in maintaining the relevance and Excellence of contemporary business education (e.g. with curriculum reform). 4. ABDC be referred for consideration and action, where possible and appropriate, the various issues identified in this study as beyond the scope of the T&L Network (e.g. funding of business faculties).

There are many terms like graduate attributes or generic skills used across various countries to describe what in this study is referred to as non-technical skills. Table 3.2 below provides details of the names used in several countries.

Table 3.2 ***Preferred terms, by country, for non-technical skills***

Country	**Term used to describe non-technical skills**
Australia	Key competencies, employability skills, generic skills, non-technical skills, professional skills
Canada	Employability skills
Denmark	Process independent qualifications
France	Transferable skills
Germany	Key qualifications
New Zealand	Essential skills
Singapore	Critical enabling skills
Switzerland	Trans-disciplinary skills
United Kingdom	Core skills, key skills, common skills, personal skills
United States	Basic skills, necessary skills, workplace know-how, transferable skills, fundamental skills

National Centre for Vocational Education Research (2003) 'Defining generic skills' (with additions).

Chapter 4 – Investigation strategy

Like the successful strategy employed in the ABDC's *Business as usual,* this project adopted a form of action research. This entailed a close 'relationship between research and some form of practical activity, such that the focus of inquiry [arose] out of, and its results [fed] back into, the activity concerned' (Hammersley 2004, p.176). Practically, therefore, the definition of the problem arose from stakeholders, academics, students, and recent graduates; the phases of the research were vetted by a reference group of practitioners, and feedback and some of the findings were fed back to the practitioners at a series of conferences and professional association meetings, as well as through specially convened workshops.

Table 4.1, below, outlines the timeline and investigation phases of the project.

Table 4.1: Project timeline and investigation phases

Phase	**Timeline**
Phase 1. Planning and preparation	**Oct-Dec 2007**
Phase 2. Implementation	**January – Dec 2008**
Stage 1. Collect data	
Stage 2. Analyse data	
Phase 3. Review results, report writing	**January –April 2009**
Phase 4. Disseminate results	**Ongoing throughout project**

The project plan

- *Phase 1: Planning and preparation*

  During the planning and preparation of phase one, the project leader and team met face to face to define and refine the details of the project and its methodology, appoint a project officer, establish a reference group, develop a communication strategy, including procedures for records and meeting frequency, and began to identify and contact stakeholders for interviewing.

- *Phase 2.* In this phase, the project team began a literature review and decided on a system for achieving representativeness and coverage in data collection. Specifically, the team:

  - decided to collect data in two stages. The first set was obtained from practitioners, graduate students and undergraduates views of graduates' skill gaps, and their predictions of their future skill needs. Practitioners were drawn from different sectors that employ accounting graduates across the public, the commercial, and the corporate sectors, and encompass large and small, regional and metropolitan firms. Students who had graduated in the previous five years were also interviewed. In addition, some project members conducted focus-

group sessions with current undergraduate students. The second stage of the project was a survey of accounting academics in Australian universities to establish how they were developing and assessing the non-technical skills that graduates require and their reflection on their approaches in developing these skills; and

- developed separate questionnaires for stakeholder interviews, graduates, and student focus groups and developed the survey questions to distribute to universities. Mostly universities were contacted through a 'coordinator' academic in each institution who was known to the project members. The team also developed an evaluation strategy for the project and recruited an external evaluator.

➢ *Phase3: Implementation of project.* The project team:

- contacted practitioners in their capital city or surrounds;
- collected information of professional accounting programs in all Australian universities and other key countries: the UK, USA, Canada, and New Zealand;
- reviewed past national studies of higher education accounting, including the Task Force for Accounting Education in Australia and the Mathews report;
- collated relevant resources from past national CAUT/CUTSD/AUTC teaching projects relating to accounting education and other ALTC-funded projects relevant to professional accounting (e.g. Jackson *et al*., 2006,b);
- met (teleconferencing, email, and face-to-face meetings) to determine questions for interviews of key stakeholder groups, including the professional accounting bodies, accounting firms, large and small employers in the public and private sectors, university accounting faculty, current students and recent graduates;
- sought feedback from members of the reference group to refine questions for the interview stage of the project and interim report to ALTC;
- conducted interviews with key stakeholders, including:
    - Institute of Chartered Accountants in Australia
    - CPA Australia
    - National Institute of Accountants
    - Accounting and Finance Association of Australia and New Zealand
    - Big 4 accounting firms
    - Mid tier/niche accounting firms
    - Small accounting firms
    - Large and small employers in the private sector
    - Public sector employers
    - Accounting faculty in universities
    - Recent accounting graduates
    - Representatives from language units and learning skills advisors;

- interviewed current students to obtain evidence about career aspirations and their perceptions about the importance of non-technical skill development;
- interviewed recent graduates to obtain evidence about the non-technical skills important in their role as a professional accountant, to what extent they developed such skills during their university degree, and how that assisted in the development of those skills in the work place; and
- collected information from university accounting programs on strategies they use to embed identified non-technical skills in the program and processes used to provide assurance of learning such skills.

➢ *Phase 4: Review and reporting*

- submitted a draft final report on findings, strategies, and recommendations to the ALTC; the draft was reviewed following feedback from the ALTC;
- submitted the final report to ABDC, ALTC and Reference Group members; and
- undertook, with the ALTC, further embedding strategies (e.g. discussion with other disciplinary councils).

➢ *Phase 5: Disseminate results:* Project members used many opportunities, including those listed below to disseminate results.

- February 2008 – poster display at the February 2008 ABDC T&L Network meeting
- March 2008 – website with basic information on project set- up on ALTC exchange
- May 2008 – presentation and flyer distribution to all participants at the Joint Universities Committee meeting
- 6 July 2008 – presentation and brochure distribution at the AFAANZ SIG Education meeting
- 9-10 July 2008 – second poster display at the ABDC meeting
- 21 August 2008 – presentation to Accounting and Finance Staff at UWA about the project, later mentioned in August 2008 CPA Update, item 5
- February 2009 – presentation to the ABDC T&L Network meeting outlining some of the major findings
- March-April 2009 – a series of five workshops (in Sydney, Melbourne, Adelaide, Brisbane and Perth), to disseminate the results of the project stakeholders, including accounting and other university educators. Participants in the workshops were given the results of the report; there was general concurrence with, and support for, the findings on the importance of non-technical skills. Participants felt that the process the project began should be ongoing. A brochure summarising the 18 strategies detailed in Volume 2 of this report was distributed to all attendees

- April 2009 – presentation of a paper on the project to the annual conference of the BMAF (Business, Management, Accountancy and Finance) Network of the Higher Education Academy in Cardiff, Wales
- April 2009 – paper submitted to the Australian Accounting Review
- July 2009 – paper accepted for presentation at the annual conference of the Accounting and Finance Association of Australia and New Zealand in Adelaide

Chapter 5 – Findings from stakeholder interviews

Introduction

In this chapter we discuss the findings from the interviews conducted with stakeholders: employers of accounting graduates, current students, and recent graduates. Data were also generated from focus group sessions with current at several project-team-member universities. The transcripts provided rich data on the role of non-technical skills in: recruitment, training and in daily work as an accountant. The skills stakeholders most frequently referred to, in order of frequency, were communication and presentation, teamwork, good interpersonal skills, self-management, initiative and enterprise, problem solving, technological competence, and planning and organising skills. Beneath these general areas were specific skills in broad skill domains. For example:

- Communication skills – verbal skills, including speaking, listening, negotiation and feedback, ability to critically comment and write;
- Teamwork and good interpersonal skills – rapport and trust;
- Self-management – being a well-rounded mature confident person;
- Initiative and enterprise – ability to work on one's own;
- Problem solving and client relationships – applying theory to practice; and
- Planning and organising – time and project management skills.

Stakeholders ranked non-technical skills variously. Stakeholder categories were: employers, professional bodies, corporations, public sector, graduates and current students. Employers were selected from: Big 4, mid-tier/niche and small accounting firms in both metropolitan and regional areas. Students were either graduates with two to three years experience or current students.[2]. Tables 5.1 and 5.2 summarise these categories.

[2] In this chapter reference to stakeholders means all interviewees including employers and students. Specific reference is also made to employers or students.

Table 5.1 Stakeholders interviewed

	Number
Big 4 accounting firms	4
Mid-tier/niche accounting firms	5
Corporations	8
Public Sector	4
Professional bodies	3
Other employers	8
Recent graduates	10
Current students	5
TOTAL	47

Table 5.2 Metropolitan/regional composition of stakeholders

	Metropolitan	Regional	Total
Employers	21	8	29
Professional bodies	3	0	3
Recent graduates	7	3	10
Current students	3	2	5
TOTAL	34	13	47

According to the stakeholders interviewed the required technical skills, in order of the most frequently cited, were: basic practical accounting skills, IT, accounting software skills, and industry-specific skills and awareness. Beneath these general areas were specific skills, such as taxation, debits and credits, and audit in the basic accounting skills and Excel in the IT skills, with MYOB straddling both accounting and IT.

NVivo, a software tool to assist in analysing interview data, was used to interrogate the interview transcripts. The analysis below addresses each of the main areas of non-technical and technical skills, with discussion on particular skills in each domain. Frequencies are reported on various aspects of each of the skills, together with illustrative extracts in the

domains. Extracts are given with their sources and, in some cases, a judgement as to whether they were made in a positive or negative manner about the particular skill being commented on.

Definition of non-technical skills

Communication, presentation

These were defined as both verbal and written, with the majority of stakeholders viewing them as verbal skills – speaking, listening, negotiation and feedback – and the remainder, a substantial minority, viewing them as written communication and reports.

Table 5.3 Frequency of comments defining communication

	Number
Communication, presentation	45
• Verbal skills, speaking, listening, negotiation and feedback	26
o Cross-cultural and language skills	11
o Using ordinary language with non-accountants	6
• Written communication, reports	18
o Literacy, numeracy skills	5

Employers, graduates, and current students all commented extensively on the role and definition of communication skills. There were 45 comments about communication and presentation skills, of which 27 were related to verbal and 18 to written skills.

Table 5.4 Frequency of comments on communication skills by different stakeholder groups

	Current students	Graduate	Employer	Total
Communication, presentation	5	9	31	45
• Verbal skills, speaking, listening, negotiation and feedback	3	7	17	27
• Written communication, reports	2	2	14	18

Table 5.5 Frequency of evaluative comments on communication skills by different stakeholder groups

	Positive	Negative	Neutral	Total
Employer	9	12	10	31
Graduate	3	1	5	9
Current students	1	2	2	5
Total	13	15	17	45

Interviewees' comments on communication skills indicate the importance of these skills to employers and the way they are perceived. They were about evenly divided as to communication skills of accounting graduates, with 13 positive and 15 negative comments. Interviewees perceived communication skills as vitally important in satisfying the requirements of the workplace, given the need to work in teams, relate to clients, and operate within a business environment; these were all dependent on good communication skills, however defined. Employers emphasised the ability of accountants to really listen to and understand client needs. Employers were also wary of exposing graduates to clients until they (the employers) were satisfied that their level of communication skills was sufficiently developed to match the organisation's benchmark. The selection of comments from employers in diverse sectors and geographic locales illustrates this point.

Employer/positive

- *The way we do business now means that we have to be able to communicate with clients at all levels.*

Graduate/positive

- *Primarily my ability to deal with people and …. in discussions and organisational skills and the ability to acquire information because my belief is that you can train anyone to do the job basically but personality is hard to fashion. In a client-orientated role you have to bring that to the table basically.*

Current student/positive

- *. . . so where my non-technical skills really fire are in tutes because I have had a few tutes where I don't know anybody and yes, you just have to be able to communicate with people . . . You just have to put yourself out there and be able to communicate.*

Employer/negative

- *…you often find one of the things that is really lacking in the non-technical areas is the ability to put thoughts on paper. So, quite often their writing skills and getting that down onto paper are not the greatest and that's something that stops their development.*

Teamwork, good interpersonal skills, compatibility with the organisation's ethos

Many organisations list teamwork as an important criterion in many advertised vacancies, but just what is meant by teamwork? Stakeholders discussed teamwork and other related skills as frequently as communication skills. Teamwork was discussed by 45 interviewees in the context of compatibility with the ethos of the organisation and good interpersonal skills. Twenty interviewees talked about client relationships, focus, and trust as important aspects of teamwork. Eighteen discussed the importance of leadership in teams; and 21 talked about the role of managerial skills in effective teams.

Table 5.6 Frequency of comments about the context of teamwork

	Number
Teamwork, good interpersonal skills, fit organisation's ethos	45
• Client relationship, focus, rapport, trust	20
• Leadership	18
• Managerial skills	21

In discussing the ability of graduates to work in teams, the employers interviewed were more positive, with 65 percent commenting favourably and 35 percent with negative comments. Table 5.7 reports the number of positive and negative comments mentioned by employers, graduates and current students.

Table 5.7 Frequency of evaluative comments on teamwork skills by different stakeholder groups

	Positive	Negative	Total
Employer	10	6	16
Graduate	2	0	2
Current students	3	2	5
Total	15	8	23

A sample of interviewees' comments below indicate the necessity of teamwork, how it creates a strong sense of commitment to colleagues and to the organisation, and how it allows workflow to be managed and deadlines to be met.

Employer/positive

- *But we had big deadlines coming up and they all just stepped up. But maybe that's part of when we employ them, the sort of things that come up then and it is not peer pressure, but they just feel committed to the team and their clients and they do those things.*

Current student/positive

- *I think that it is not so much emphasised in the actual coursework but more when you have the opportunity to do group assignments for accounting; that's when these non-technical skills really come out.*

Employer/negative

- *But rather just to sit there and not to gain the experience from those around them and she found that... If only they had the initiative. . . to go and try and find it, which was OK, so that's a good skill to have, but to then say, "Well look, I just don't get it, give me some more guidance" or ask someone else who is in the same team.*

- *What happens from there is that it is trying to have people understand that when they have done a four-hour module on managing conflict as a graduate that that doesn't hold good for the rest of their career because there is often, "Oh, well, we've done that. We have ticked that box." So again that's one of the big struggles we have and again it gets back to issues that come through.*

Current student /negative

- *I think it is definitely important for them (lecturers) to at least raise awareness of – you will come in contact with people you don't like.*

Self-management

The third key area of comment relating to non-technical skills was self-management. In order of frequency, the key area of self-management discussed was the need for well-rounded, mature, confident persons, followed by being hard working, dedicated and holistic, flexible and able to deal with complexity, uncertainty and pressure. Many employers referred to the need for a 'well-rounded and mature' applicant as a consideration in the recruitment stage. It often served as a discriminator between applicants with similar grades. Employers also referred to self-management in the workplace, perceiving it as hard work and dedication and an ability to deal with complexity, uncertainty and pressure.

Table 5.8 Frequency of comments defining self-management

	Number
Self-management	41
• Ambition	6
• Community involvement, social responsibility	7
• Hard working, dedicated	12
• Holistic, flexible, able to deal with complexity, uncertainty, pressure	11
• Intellectual capacity	2
• Self-presentation, professional presence, behaviour	8
• Well-rounded, mature, confident persons	20
• Work independently, manage time	13

Some comments by employers indicated that grades were not all that was required and that the 'well-rounded' graduate was highly in demand. This is perhaps not surprising given the results of other studies (Light 2001). When combined with study, life experiences such as part time employment, sporting and extra-curricular activities (particularly those including leadership responsibilities) were the most desirable traits in recruits. In the workplace the ability to manage oneself in a team environment is also important to employers.

Employer/positive

- *As we are a family company we want people who are going to fit in. So we look at how they are going to 'fit in' as a person, so interpersonal skills, and attitude to work. Some want top money straight away but don't necessarily want to work the hours that are required. We like people who live locally. There has to be some return for effort and a certain type of person to stay in (regional location). We assess how they are going to work as part of our team and that is a big factor.*

- *We do often look for work experience, a part-time job or having done vacation work, as evidence of how holistic this person is, trying to give us a bigger picture of the whole business. It is such an important quality that we need in our people is relationship building ability. So, the technical excellence is taken as a given; we expect everybody to be able to have that and do that, but that X factor, that quality that somebody has that says they are a well-rounded person…*

Current student/positive

- *I think not so much. I think we get more out of our non-accounting subjects such as teamwork and all that sort of stuff. We have had to do presentations and that's good because you have got to bounce all your ideas off. And problem solving and all that sort of stuff, but I think, for me, it is more of a non-business degree, because management behaviour and all that sort of stuff where you really look at all the other avenues and diversity, that's probably where those subjects come in stronger.*

Employer/negative

- *I think that's a skill that I guess you only get through experience, the capacity to work with various age groupings and with people who come from vastly different backgrounds. The problem we have in universities is when you are working in groups you are probably working with some of your mates; you have all come from the same place.*

Initiative and enterprise

When stakeholder participants discussed initiative and enterprise, the most common topics mentioned were business acumen, knowledge, planning, and building. Employers referred to vision, imagination, seeing the big picture, and adding value; they were particularly keen to see initiative and enterprise in their recruits, but also to build into their graduate programs opportunities for the recognition and nurturing of such skills within the workplace. The two areas of a) initiative and enterprise, and b) business acumen, knowledge, planning and building were widely commented on by the stakeholders. These were seen as significant non-technical skills that led to a graduate having the ability to stand out from their peers both in recruitment and their career trajectory through the firm.

Table 5.9 Frequency of comments defining initiative and enterprise

	Number
Initiative and enterprise	35
Business acumen, knowledge, planning, building	21
Ethics, discretionary behaviour	4
Vision, imagination, seeing the big picture, adding value	6

Table 5.10 Comments on initiative and enterprise by different stakeholder groups

	Current students	Graduate	Employer	Total
Initiative and enterprise	3	5	27	35
Business acumen, knowledge, planning, building	0	4	17	21
Ethics, discretionary behaviour	0	1	3	4
Vision, imagination, seeing the big picture, adding value	0	2	4	6

Comments about initiative and enterprise focus on the ability to think for oneself, to have some commercial acumen, and to be prepared to take the lead and make some decisions based on graduates' assessment of the environment in which they are working. Employers, especially, emphasised the value of having final-year subjects where students had to deal with ambiguity and 'grey' areas; these were deemed helpful in preparing students for their graduate roles.

Employer/positive

- *I think a bit of commercial acumen is pretty important. The really good grads are the ones that can think quite commercially and perhaps they are a little bit savvy in terms of understanding our commercial situation. . . . Is this a successful company? If so, why? Are they growing, are they struggling? If so, what industry are they in? Does it all actually hang together and make sense? What economic factors are impacted on the industry that they are in? So anyone who can think along those lines very much applies a bit of a holistic approach because audit is about understanding the risk of the environment and that sort of thing. So the quicker people can come to grips with the environment that they are working in, the better they are going to be at what they do.*

- *They generally have got a lot of initiative, ability to work on their own. The area that I work in, we tend to say to people "Here's a job, go away and do it and come back when it's finished". There is a lot of mentoring goes on, but very little over the shoulder –"What are you doing, what are you doing?" Once we give them something to do, we expect them to do it and to do it well.*

Employer/negative

- *I'm finding they can't actually think for themselves; they want you to do their thinking for them. If anything, their uni results show that they have got initiative, but it doesn't seem to come into the real world.*

Graduate/positive

- *Yeah, and if there is a way in which we can imbue people with more commercial acumen. I understand theory is essential in terms of if real-world circumstances change then you have that basic knowledge of how things should be structured and organised in your mind and what financials should look like, but yeah, I think it is a good step to have some contact with real organisations during your studies and yes, get that commercial acumen from first-hand experience.*

- *I think anything that gets you to not just accept and learn numbers but question and think outside and expand. No formula or compliance is going to cover every issue that you come across. There are going to be grey areas, there are going to be things that people have never dealt with before and no law or technical commandment [has] ever foreseen arising, so you have to be able to have a greater understanding so that you yourself can make a judgment on applying the intent.*

Problem solving

Problem solving was perceived as graduates' ability to apply theory to practice as well as critical analysis and thinking skills. Employers valued their ability to relate concepts learned at university to new situations in the workplace, the ability to think for oneself, the ability to regard critically new information and situations. Theory learned at university needed to be applied to a range of new problems and contexts and the graduate who had this ability was in demand. Problem solving was strongly related to being able to apply theoretical knowledge learned at university to real-life situations encountered in the workplace. Employers valued highly the ability to apply knowledge from one workplace context or problem to another**.**

Table 5.11 Frequency of comments defining problem solving

	Number
Problem solving	30
Applying theory into practice	17
Critical analysis, thinking skills	16

Graduate/positive

- *I think having in your final year subjects like current issues that cause you to, or allow you to, question the grey areas of accounts and particularly in government – that probably has been one of the more useful areas that I have looked at. I think anything that gets you to not just accept and learn numbers but question and think outside and expand. No formula or compliance is going to cover every issue that you come across. . . having that capacity to be able to not just go "The book said it had to be this", because so often the book can just go out the window…*

- *. . . so it was quite weird to not be able to apply what I have learnt from university even though it is necessary to be able to formulate an analysis on the company's financials, it just wasn't what I expected. Like I found uni more challenging than some of the stuff I do here.*

Current student/positive

- *And problem solving and all that sort of stuff, but I think, for me, it is more of a non-business degree, because management behaviour and all that sort of stuff where you really look at all the other avenues and diversity and that's probably where those subjects come in stronger.*

- *Yeah, I think with some subjects we do actually, like the accounting specialisation, they help with communication, teamwork, problem solving, not really self-management, that's kind of left up to us whether we do it or not.*

- *I think that it is not so much emphasised in the actual coursework but more when you have the opportunity to do group assignments for accounting, that's when these non-technical skills really come out. … Teamwork, communication skills, problem solving more so than the theory that's covered in lectures.*

Employer/negative

- *Communication skills is something we expect a little bit better and also, I guess, some of the problem solving skills as well, the ability to think through options and then to come to some conclusions, not necessarily decisions. . . .So problem solving stuff. "Hey, what is going on here. This is what I see. It is not right. These are the problems, these are some options, here's a recommendation."*

Graduate/negative

- *I think the problem solving isn't developed enough at uni and I think that could be expanded.*

Technological competence

There were a total of 20 comments on the field of technological competence, where employers singled out the areas of IT generally and skills in Excel use. Often, however, there was disappointment in the Excel competence of graduates. There was also mention of mastery of accounting software as a desirable technological skill. Employers observed that as graduates are now Gen Y their technological competence is at such a high level graduates may in fact feel bored or frustrated by the lesser technical challenges offered in the workplace.

Employer/positive

- *Because of the Gen Y, and we are dealing with the bulk of Gen Y, technically they are quite competent because naturally when they come out into the world they have all the technical changes like YouTube and you name it, the internet is all there, so they are quite adapted to the new environment. The problem with the organisation is that we don't have the right tools, or have the tools' up-to-date technology, and*

they might find themselves very bored.

Graduate/positive

- *But it goes back to, I know what's happening in the assignment because I have got the foundations, and to me once you have used one computer accounting software, you should be able to use all of them and you should be able to understand what goes on behind the scenes.*

- *The major non-technical skills were computer-based (Word, Excel, general usage of computer software/hardware), and with as my (sic) degree had a basic IT based component not just pure accounting, I received sufficient skills.*

Current student/positive

- *Technology, yes was mild [in accounting units].*

Graduate/negative

- ***Interviewer:** So, did you have sufficient levels of technical and non-technical skills when you started? You said you probably would have liked a bit more…* ***Respondent**: Yeah, well, for example Excel definitely, and I was pretty confident at Excel, like I did an advanced Excel for my first learning one, and even that wasn't enough.*

Planning and organising

Planning was perceived as the ability to plan and organise as well as time and project management skills.

Table 5.12 Frequency of comments defining planning

	Number
Planning and organising	16
Time, project management skills	5

The comments from many employers about planning indicate that many of the non-technical skills mentioned previously are not viewed in isolation but as a package. Teamwork, self-management, and having life experiences external to study were all linked with planning skills:

Employer/positive

- *I think there probably needs to be some part of the curriculum that factors in that they will need certain other skills when they commence working straight away. To give them that grounding, even if they come at graduate level and not undergraduate level. We have somebody who graduated in December that's*

already out doing client work because she has been here as an undergraduate for a couple of years. She is out there doing client work and she is responsible for that job and that wouldn't happen with a normal graduate. There are no modules within the commerce degree that provide them with some sort of soft skills, whether it be being able to interact with and building relationships or working relationships or managing your time or managing work objectives and things like that and being able to meet deadlines.

Employer/negative

- *But if they struggle in research and ask ongoing questions where it is not actually sinking in, then, to put it from a practice perspective, it blows out the cost to the client of which the practice can't pass that onto the client, so they lose money.*

Non-technical skills – their role in recruitment, training and employment

The analysis of stakeholder comments about non-technical skills revealed that they considered non-technical skills within three contexts: recruitment, training, and on-going employment as an accountant. In all three contexts, they deemed communication, teamwork and self-management to be the most desirable and satisfactory. They considered communication and problem solving the most inadequately developed and posing the greatest limitations on graduates in both their skill sets and their career development. Table 5.13 below, presents frequencies of comments on the evaluation of non-technical skills

Table 5.13 Frequency of comments about stakeholders' evaluations of non-technical skills

	Desirable	Satisfactory	Inadequate	Limitations	Total
Communication, presentation	10	7	9	8	34
Initiative and enterprise	5	2	1	1	9
Planning and organising	0	1	2	2	5
Problem solving	5	3	6	7	21
Self-management	8	6	1	3	18
Teamwork, good interpersonal skills, fit organisation ethos	9	7	1	5	22
Technological competence	0	4	0	1	5

The following are illustrative extracts from student focus groups:

- *You have to be able to think outside the square with some things; you can't just*

look at everything from the one approach . . . if you are given a job at work and you have got a certain time to do it in, you have got to organise yourself to make sure that task is completed on time.

- *I think presentation skills are really important when you go into the workforce and I don't think we do enough of that here.*

Employers were very keen to discuss the range of non-technical skills they looked for at the recruitment stage, in training, and in ongoing accounting employment. These are summarised in Table 5.14. They discussed communication, self-management, and teamwork most frequently. The category 'recruits' in Table 5.14 refers to comments on recruits as employers found them, the category 'recruitment processes' how they recruited for particular attributes and finally, the category 'ongoing employment' lists skills mentioned as important for graduates' ongoing employment in the organisation. For example, 9 interviewees cited self-management as the most important non-technical skill they look for in recruits, 16 indicated communication skills as the most important in the recruitment process, and 6 cited self-management as important for ongoing employment.

Table 5.14 Frequency of comments about non-technical skills in the recruitment process

	Recruits	Recruitment processes	Ongoing employment	Total
Communication, presentation	5	16	3	24
Initiative and enterprise	2	7	1	10
Planning and organising	1	2	0	3
Problem solving	1	7	1	9
Self-management	9	17	6	32
Teamwork, good interpersonal skills, fit organisation ethos	8	12	4	24
Technological competence	1	0	2	3

In recruitment, employers used non-technical skills as a discriminator when evaluating graduates with similar grades or even slightly dissimilar grades. An extended extract from a Big 4 accounting firm, as reported below, encapsulates much of what employers were telling us across the country: grades are good but not everything. They want graduates who are well rounded, who have experience in areas other than study, whether it be volunteering, part-time work, or, for example, sport, so that when those graduates are being prepared for management positions they have the ability to develop relationships that are the basis for growing and sustaining a business. The technical ability is assumed; however, it is the non-technical ability that will distinguish the outstanding from the good graduate.

- *What we are looking for is people who are well-rounded, so if you have got students who have got outstanding results, that's all they have done. So if their CV indicates all they do is study, study, study, we would be a bit concerned about that person. Their grades would probably get them through the first screening, but there would be some really serious questions asked about that person's capability in the longer term. We do often look for work experience, a part-time job, or having done vacation work, as evidence of how holistic this person is, trying to give us a bigger picture of the whole. I'll give you an example: we were looking at some sample applications last week and we had two CVs in front of us and one was an outstanding student, outstanding results, but no work experience, hadn't ever had a part-time job, didn't do any volunteer work, really was just focused on study. We had another young guy whose results weren't as good as the first one, but had such a long list of things that he was doing from volunteering on a whole range of things, getting involved in student activities on campus, part-time work and we said, that's probably the one we want. It is such an important quality that we need in our people is relationship building ability; so when you get through to the very senior levels, the senior managers and our partnered ranks, it is all about relationship building and then working and an ability to have broad relationships. So, the technical Excellence is taken as a given; we expect everybody to be able to have that and do that, but that X factor, that quality that somebody has that says they are a well-rounded person*

Comments from employers in other sectors were similar, also suggesting that grades were not the paramount consideration in recruitment. For example, a public sector employer and a mid-tier/niche accounting firm shared this view:

- *But having said that, you need to contextualise it because grades certainly aren't everything and our recruitment and screening process, as the same for the chartered firms, looks also at a variety of other attributes and skills that we are interested in, particularly communication skills, team building skills, teamwork skills, those types of softer skills which you can't see in a set of grades Obviously their grades are important. However, I am not looking for someone that's come through with high distinctions or distinction., I am looking for more consistency to their grades . . . And it is very important, from my point of view, when I recruit I am looking for well-rounded employees to come into the firm. It is important that they fit the cultural aspects of our firm as well. Yes, they need to have some technical ability obviously because that's what they are going to be doing in the future, but they also need to have that confidence in themselves, the ability to be able to communicate clearly and succinctly and to conduct themselves in a professional manner and know what's required in a professional services firm.*

Acquiring non-technical skills: whose responsibility is this?

Stakeholders discussed responsibility for the acquisition of each of the non-technical skills and the results are reported in Table 5.15. The overwhelming view of interviewees is that it is the university's responsibility to develop non-technical skills in graduates. The only exception is teamwork, where the views were about 50:50 between the employer and the university being responsible.

Table 5.15 Responsibility for acquisition of non-technical skills

	Employer's role	Graduate aptitude, responsibility	Partnership	University's role	Total
Communication, presentation	7	2	3	16	28
Initiative and enterprise	2	4	1	11	18
Planning and organising	3	0	0	4	7
Problem solving	4	1	2	16	23
Self-management	5	2	1	9	17
Teamwork, good interpersonal skills, fit organisation ethos	10	2	2	11	25
Technological competence	2	0	0	7	9

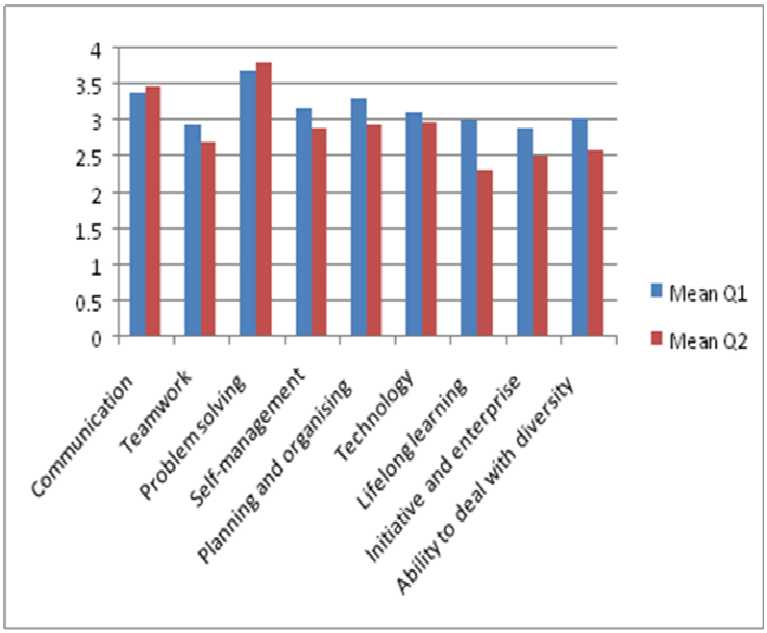
The results in Table 5.15 provide a strong endorsement of the need for universities to develop non-technical skills in students before they graduate. This poses a significant challenge for accounting educators in finding space in an already crowded accounting curriculum.

Figure 5.1 below reports the views of 23 accounting educators who completed the survey we discuss in Chapter 6. These results show that academics consider problem solving is a skill that they develop and assess effectively. And they rank communication second in terms of development and assessment. But the results in Table 5.5 suggest that there is a divergence of opinion between how well academics perceive they develop communication skills and the views of the stakeholders interviewed.

A comparison of Table 5.15 and Figure 5.1 reveals some interesting observations. Teamwork and initiative and enterprise skills considered by interviewees as important for universities to develop are the two skills that academics feel are the most difficult for them to develop in students. While problem solving is a skill academics feel they can effectively develop and assess as expected by interviewees. In one of the dissemination workshops held in Perth in April 2009, participants considered the best approach was to embed these skills within the accounting program. The use of case studies was seen as an effective tool to assist in the development of these and other skills, such as understanding how accounting interacts with other aspects of an organisation rather than having a silo approach to their role.

Figure 5.1 Accounting educators' views on non-technical skills

Academics' views about their capacity to develop (blue) and assess (red) non-technical skills on a scale of 1 (not at all) to 5 (Excellent)



Stakeholders also discussed the ongoing nature of accountants' training throughout their career in both the technical and non-technical areas. Table 5.16 shows that ongoing training is seen as important for communication, teamwork and self-management. With regard to future skills, most interviewees focused on teamwork, particularly in terms of leadership, communication and initiative and enterprise.

Table 5.16 Frequency of comments about ongoing training and future skills

	Ongoing training	Future skills
Communication, presentation	12	9
Initiative and enterprise	5	9
Planning and organising	1	0
Problem solving	6	4
Self-management	11	2
Teamwork, good interpersonal skills, fit organisation ethos	15	12
Technological competence	2	4

Stakeholders considered that for the working professional accountant, teamwork and good interpersonal skills were the most important attributes in terms of career path. A public sector employee commented on the importance of preparing graduates for management roles from the outset, using training based on typologies such as the Myers-Briggs Type Indicator and emotional intelligence. The broader view taken was that, regardless of the accounting field, these non-technical skills were paramount to the successful execution of the technical requirements.

- *After that we continue to train them, but because their role is changing we actually start emphasising managerial. Even in the first couple of years we kind of pepper the courses with some managerial training, so we start off with self-awareness stuff, some Myers Briggs type TMI kind of instruments, getting greater awareness of how they act and behave and the emotional intelligence. Then we try to introduce them progressively to things like negotiating skills courses and how to manage your time and so, all those kind of non-technical, but really important practical skills that they actually need to do their job. . . . In my mind, my personal view, there seems to be an undue emphasis in their education on the technical without sufficient emphasis on the non-technical as far as the verbal and written communication skills. Because you can't operate as an auditor unless you can actually communicate effectively both in writing and verbally, and then, a part of communication being able to negotiate, being able to deal with conflict, particularly if you are an auditor, all those soft skills, and a lot of them certainly aren't prepared for that through their higher education, so a lot of that we have to actually provide that training and support.*

Technical Skills

Basic technical skills

Most employers discussed technical skills. In order of frequency, the skills were tax, debits and credits, auditing and understanding financial reports, and preparing financial statements. Table 5.17 provides the frequencies of occurrence for all technical skills mentioned. Employers generally did not expect competence in specialist areas such as tax or audit, and were willing to provide necessary training in such specialist areas. What they did want was basic competence and understanding of debits and credits and preparation and analysis of financial statements, namely basic financial literacy.

Table 5.17 Frequency of comments on defining basic technical skills

	Number
Basic, practical accounting skills	42
Accounts payable	3
Audit	8
Consolidations	2
Variance analysis	1
Entries, debits and credits	11
R&D incentives	1
Reconciliations	4
Retrieving information from the system	2
Superannuation	5
Tax	13
Transactional activity	3
Trusts and companies	2
Understanding financial reports, preparing financial statements	9

The extracts below indicate a strong need for basic skills but a willingness by employers to train graduates in specialist skill areas. Employers expected rudimentary knowledge of technical skills and not much more. What they did expect, however, was for graduates to have a keen willingness and capacity to learn new technical skills, based on a solid framework of theoretical understanding gained at university. Employers perceive technical skills not as a set of knowledge or content, but as a capacity and willingness to learn and master that new knowledge. By contrast, new graduates were concerned that, in their time at university, they hadn't learned everything required of them in the workplace.

Employer/positive

- *I just cared that they could understand the balance sheet, through to the P & L. So they always started off reconciling, doing a bank rec, and understanding the importance of the bank rec. If the GL isn't reconciled then the profit is probably wrong, and if the profit is wrong then of course we are wasting our time. Well the ones that we have are great and we don't keep ones who aren't. In the face of the much-talked-about skill shortage, it is not viable to keep people who can't be productive at a technical level, so we do performance reviews twice yearly*

Graduate/positive

- ***Interviewer:*** *What technical skills were important when you started and has this changed?*

  Respondent: *As an undergraduate I had sufficient technical skills expected of me for my level*

Employer/neutral

- *What does happen is different to what probably should and that is that the university teaches technical skills to people that will probably not use what they have learnt to a large degree. They (the graduates) will learn technical skills in certain areas of accounting that may be used say in a Big-4 firm at a higher level and it may be some years, if ever, before the graduates are going to use those skills. Certainly in smaller country firms, a lot of what they learn at university will never be applied in their practical work and that's where we find that TAFE does a pretty good job in teaching those technical skills, if you like, the day-to-day practicalities of accounting for small business. The university is very good at teaching at a higher level and possibly that's too high for most of our students. But anyway, what's the university's role? I would like to think that the university's role was giving people the skills to apply in the workplace, but I don't know that that's happening.*

Employer/negative

- *I would say eight out of ten guys can't and don't know how to deal with a bank reconciliation when they leave university. My thought is that they probably should know how to do that coming out of university…*

- *They are used to doing automated journal entries on systems and things, but if you ask them to do a T account, I say "Well tell me where we are wrong here?" They just don't know how to do it; they can't do it, and I am not that old.*

- *If they can recall some of their basic accounting processes, it is probably a bit of a surprise and you certainly have a reasonably low expectation of their technical skills. Occasionally they will surprise you and occasionally you will think, "OK, they actually do recall some of this and can apply some". But generally speaking we wouldn't expect anything more than a fairly rudimentary knowledge of accounting and auditing.*

- *We don't expect them to know our system, but we expect them to be able to learn it quickly and they have just got to know their accounting basics, debits from credits and other things, I guess, through accounting problems.*

Graduate/negative

- *A degree means you can learn, not necessarily have skills to undertake any position at any demanded salary level…*

- *The university should endeavor to create work ready students by the end of their degrees. Most students these days focus on doing as little as possible at uni and it*

hurts them in the real world.

Current student/negative

- *When they start in real life applying what they learn is quite different to what they had to learn at uni. So, in terms of technical skills it is being approached not from a practical basis, it is really theory based, it is not based on practical and I think universities should place more emphasis on training our practical skills.*

Basic technical skills, according to different stakeholder groups

Employers and graduates had more comments to make about the basic technical skills than current students. This is not surprising given the latter's lack of experience in the workplace and the demands therein. The same four areas of audit, tax, debits and credits, and understanding financial reports were uppermost in the frequency of comments made about basic technical skills by stakeholders.

Table 5.18 Frequency of comments about the basic skills by category of interviewee

	Current students	Graduate	Employer
Basic, practical accounting skills	4	9	29
Accounts payable	0	0	3
Audit	0	2	10
Consolidations	0	0	2
Variance analysis	0	0	1
Entries, debits and credits	1	2	8
R&D incentives	0	1	0
Reconciliations	0	0	4
Retrieving information from the system	0	1	1
Superannuation	0	1	4
Tax	1	3	9
Transactional activity	0	1	2
Trusts and companies	1	0	1
Understanding financial reports, preparing financial statements	0	1	8

Comments on basic technical skills by different levels of employer organisations

When categorising employers into Big 4, mid tier/niche, professional associations, corporations and not for profit, the main distinguishing feature was that basic practical accounting skills were mentioned by all except the not-for-profit category; basic accounting skills and audit were mentioned most frequently by the Big 4, while representatives of corporations referred most frequently to understanding financial statements.

Table 5.19 Frequency of comments about the basic skills by employer group

	Big 4	Mid-tier/niche	Professional association	Corporations	Not for profit
Basic, practical accounting skills	7	4	4	8	0
Accounts payable	0	0	0	1	0
Audit	6	3	1	0	0
Consolidations	0	0	1	1	0
Variance analysis	0	0	0	1	0
Entries, debits and credits	2	0	0	2	0
R&D incentives	1	0	0	0	0
Reconciliations	1	0	0	1	0
Retrieving information from the system	0	0	0	1	0
Superannuation	0	1	0	1	0
Tax	2	1	1	1	0
Transactional activity	0	0	0	2	0
Understanding financial reports, preparing financial statements	1	0	1	4	0

IT software skills in accounting

As previously mentioned in relation to the non-technical skill of technological competence and in relation to the technical skills, general IT competence and Excel were, in particular, the areas most discussed. Good computing skills, understanding of IT infrastructure and computer based programs such as Word, Excel and MYOB were discussed.

Table 5.20 Frequency of comments on defining IT software skills

	Number
Ability to use Excel, MYOB and related accounting software programs	30
Excel	6

Employer/positive

- *We would also expect them to have good computing skills and at least a knowledge of some of the accounting systems that are around. I note that some of them have used MYOB, which should help them to get up to speed with the ones we use.*

- *When we recruit one of the double degree [students], skill sets that I am really interested in is someone with an IT flavour to their degree that they can actually understand and negotiate their way around an IT system; they can speak IT and translate that into audit. There is no more of the old fashioned paper trail to follow and I need people – they don't have to be IT boffins because we will always supplement with IT specialist audit resources for the really complex cases – but for the kind of second order clients, and that's what I am saying, is more and more I'm going to get these second order clients, I need people who have a bit of IT. But I certainly feel a little exposed at the moment thinking about the direction that the sector is going with its IT infrastructure and whether or not I will be able to actually cover that off in the next five and 10 years unless I get* these types of people.

Graduate/positive

- *… so the accountant has to understand MYOB, a bit of accounting knowledge would be Excellent …. So, I reckon the accounting foundation is very important and accounting software.*

Current student/negative

- *I think in the real world, accounting does have such a large technological foundation to it, yet in university we primarily approach it from a theoretical perspective so it is not really producing graduates with the skills that are in demand I don't think.*

Advanced accounting

Employers generally did not indicate an expectation of advanced levels of accounting knowledge as they provided extensive training through their graduate or on-going training programs. They did, however, require the ability to keep up with rapid change in both content and complex processes.

Acquiring technical skills: whose responsibility is this?

When different stakeholders were asked whose responsibility it was to nurture the acquisition of skills, the two key groups deemed to be responsible were the employers and the universities, with 58% considering technical skills the responsibility of universities. This is similar to the responses about non-technical skills as reported in Table 5.15. These data are useful for accounting educators when considering the shared responsibility of universities and employers for the development of technical and non-technical skills.

Table 5.21 Frequency of comments about the responsibility for technical skill development

	Number
Employer's role	17
Graduate aptitude, responsibility	2
Partnership	3
TAFE model builds skills	1
University's role	32
Total	55

Basic technical skills in the context of recruitment and ongoing work as an accountant

Employers discussed basic technical skills also in terms of training, recruitment and ongoing work as an accountant, just as they did in relation to the non-technical skills. When referring to training, employers commented more frequently about the need to acquire basic technical skills, followed by ongoing training, with minimal comments about their role in developing future skills. In identifying the basic technical skills required, employers referred most frequently to debits and credits, followed by audit and tax; the latter two areas were identified frequently as topics for ongoing training.

Comments about training in technical skills

Table 5.22, below, classifies employers' comments on the need to acquire basic technical skills, to train further, and the nature of skills required in the future, and provides their frequency.

Table 5.22 Frequency of comments about training in basic skills

	Acquiring skills	Ongoing training	Future skills
Basic, practical accounting skills	29	16	5
Accounts payable	1	2	0
Audit	4	6	0
Consolidations	1	0	0
Variance analysis	1	0	0
Entries, debits and credits	6	2	0
Reconciliations	2	2	0
Superannuation	0	3	0
Tax	5	5	2
Transactional activity	0	1	1
Trusts and companies	0	1	0
Understanding financial reports, preparing financial statements	4	1	0

Audit

In relation to auditing, employers had limited expectations that universities would provide anything more than a basic skill level. Possessing the skill was not a discriminator in recruitment. Audit skill development was an area employers were prepared to take on as their training responsibility. Most employers had their own audit programs, to which they introduced graduates at induction.

Employer/positive

- *I'll just preface the remarks. When we recruit, one of the prerequisites is that they have a degree that allows them to obtain CPA or CA status. This is for the*

financial auditors; now, to be very specific, it is not the same case for performance auditors. So, we know that they will have relevant subjects in accounting and auditing, and whatever, such that they could get the CA or CPA qualification.

Employer/negative

- *We divvy it up because we have accreditation processes where we go to the universities and look at their accounting syllabuses and we say, "OK, you're doing tax, you're doing audit, you're doing financial reporting, that's fine", or "Do a bit more because here's where you bolt onto us and, if you don't meet that point and there is a gap, your candidates will not be successful in our professional accounting program."*

Entries, debits & credits

Whereas employers wanted basic debits and credits knowledge in graduates, they commented frequently that their expectations were not fully met. Some commented that graduates needed to spend time in induction and training covering the most basic level of debits and credits training. Employers were concerned they had to teach graduates skill areas that the universities should have covered.

Employer/positive

- *Being able to demonstrate that they can do basic things such as entries into accounting systems, bank reconciliations, understanding financial reports, etc.*

Employer/negative

- *They have absolutely no idea, none whatsoever, half of them don't know a debit from a credit, so we have to start at the very basics.*

- *…, they don't know a debit from a credit, and these are accounting graduates and we have got to assume zero knowledge on these guys. Well, if it was a perfect world, I would like to see the universities doing us out of a whole lot of the stuff that we are finding ourselves doing in the first 14 weeks of the graduate's induction. It troubles me that we feel we have to teach accounting graduates, go back over the debits and credits and what is a balance sheet and what is a profit and loss statement – that troubles me no end that we need to do that.*

Tax

Tax was another area where the expectation of employers was that basic knowledge should be provided by universities, while they would manage the specialist knowledge. GST was an area that graduates mentioned they were unprepared for in their university courses.

Graduate/positive

- *Knowledge of Australian tax and accounting standards*

Employer/negative

- *I am not sure whether the university is, and look, I am a little bit out of date with this, perhaps, but up until very recently the universities weren't teaching anything about GST. Now, I know it was at least four or five years into the GST and there was nothing being taught at university. Now, it may well be that there is a little bit of that going on now, but does the university show students how to complete a Business Activity Statement? Does it run through an Australian Income Tax Return? It does teach students about Income Tax Law, that's exactly right, but does it teach the students on the application of that law in the preparation of the paperwork that follows on from that?*

Current student/negative

- *Yeah, well, I have done the taxation law subject and an employer can see that on my transcript and see that I have a credit for that and think, "You must know tax", but really all I learnt in that was the theory of it and how certain things, if you pay tax or not, in the period …..*

Financial reporting

Financial reporting was another area where the expectation of employers was that basic training should be provided by universities and that this training should also include developing an ability to do certain basic data entry and reports with some level of financial literacy.

Comparison of metropolitan and regional stakeholders

When undertaking the study, every effort was made to engage with both metropolitan and regional stakeholders. All the evaluative comments about technical and non-technical skills from each cohort showed some differentiation in some areas, but in aggregate there was not a significant difference in the responses from metropolitan and regional stakeholders, with almost equal number of positive and negative comments from both metropolitan and regional stakeholders.

Table 5.23 Frequency of evaluative comments in total from metropolitan and regional respondents

	Positive	Negative	Neutral
Metropolitan	31	30	12
Regional	8	7	4

Conclusion

The analysis of interview transcripts delivered strong messages about the importance of non-technical skills in areas of recruitment, training and ongoing workplace skills development. Communication, in all its forms, coupled with teamwork, problem solving,

self-management, interpersonal skills, and initiative and enterprise were highly sought after in graduates and also made a difference in advancement within the workplace. These skills were often used as discriminators by employers in recruitment. When faced with the choice of applicants of similar academic merit, employers chose the student who displayed strengths in the non-technical areas.

In relation to technical skills, employers generally appeared to have modest expectations. They looked for general understanding and competence and a willingness and a capacity to learn, but were content or resigned to undertake much of the technical training themselves. Those employers working in small business and to some extent in regional areas, required stronger technical skills in graduates, given their limited resources for in-house training. On the issue of whose role it is to develop both technical and non-technical skills, there was a clear majority who perceived this as being the responsibility of the universities.

Chapter 6 – Findings from university surveys

Introduction

In this chapter we discuss the second stage of the project: the survey of universities. This stage involved seeking information about how universities around the nation developed and assessed the nine non-technical skills that were identified in the first stage as being most important for professional accountants. Our approach was to send the survey to a designated 'coordinator' at each university, someone known by one of the project team, who would take ownership of the survey and ensure that appropriate staff would respond to it. The high response rate suggests this strategy was a success.

Details of responses

Of the 38 surveys distributed to universities in Australia, a total 20 were returned representing a response rate of 53%, which was impressive considering that completion of the survey required several hours. Of the 20 responses received a total of 18 academics indicated a willingness to share information on a particular strategy/initiative they had implemented for the teaching/assessment of one of the nine non-technical skills listed in the survey.

The process of obtaining the details of the eighteen strategies/initiatives individuals/groups involved many phone calls, teleconferences and emails over several weeks. The original intention was to select 'exemplars' from the set of embedding strategies submitted by universities. To do this would have required a quality assurance process where evidence would be gathered about the effectiveness of each strategy, and then matched to a hierarchy of evidence. For example, the effectiveness of one strategy for improving student learning might be demonstrated by an amount of informal anecdotal evidence, and another might have stronger supporting evidence (e.g. systematic student feedback, or changes in assessment data trends). However, once submissions about strategies were received, it became clear that most were at varying stages of development and implementation, and some were too early for explicit and systematically derived evidence of success to be available.

As a result, a decision was taken for contributors to compile a set of descriptions of their strategies (for embedding learning of non-technical skills), and allow our colleagues to form their own judgments about the value of particular strategies for their contexts. We have not made any judgment about the relative merits of strategies, principally because there was insufficient clear evidence to do this in many cases. However, the evidence that was available is included in Volume 2 of this report.

Two criteria were adopted for inclusion of a strategy in the set of examples:

1) The strategy/initiative was put forward by a university lecturer.

2) Enough information was provided (via follow-up interview) to describe the strategy clearly and, where possible, to furnish any evidence about its effectiveness.

To provide clear descriptions of the strategies, and to enhance the effectiveness of dissemination, a standard structure and format was developed, which incorporated key headings including the following.

- Strategy in brief (a summary description)
- Non-technical skills aimed to be enhanced
- Learning and teaching rationale
- Details of learning and teaching strategy
- Assessment of learning related to strategy
- Evidence available for success of strategy

A summary of the eighteen strategies is reported in the next section, and a complete description can be found in Volume 2 of this report, with contact details of the relevant academics who are willing for readers to seek clarification.

Summary of strategies

The strategies range from single easy-to-implement unit/subject level strategies, such as appointing small-group leaders in weekly tutorial classes, through to program-wide intensive strategies such as the embedding of communication skills in the Master of Professional Accounting program at Macquarie University.

Strategy 1: Joint in-class preparation

Strategy in Brief: This is a strategy to improve preparation, learning from, and participation in tutorials in a mandatory 3rd year auditing unit in the UWA Business School.

Strategy 2: Interactive and engaging in program learning

Strategy in brief: A teaching strategy used with large groups in a first year level 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.

Strategy 3: Integrated first year units

Strategy in brief: A program in first year units of the accounting program, delivered in the School of Accounting and Corporate Governance at the University of Tasmania, and characterised by

- small group learning environments
- lectures that provide in-class activities and emphasise interaction and application rather than content alone
- workshops, central to the program, which enable students to solve problems assisted by academic staff

- 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 one, two or five days a week over the semester.

Strategy 4: Mapping embedding and scaffolding teamwork

Strategy in brief: These skills are taught across three units beginning with BUS160 Introduction to Accounting in 1st year, continuing with BUS217 Technical and Accounting Processes in 2nd year, and culminating in a unit BUS256 Contemporary Financial Accounting in 3rd year at Murdoch Business School, Murdoch University. The units are taught by different accounting faculty.

Strategy 5: Joint out of class tutorial preparation

Strategy in brief: In this strategy student 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.

Strategy 6: Prison field trip

Strategy in brief: In this activity students visit professional accountants, who are incarcerated for fraud and related offences, to question them on the reasons for and the circumstances that led to their fraudulent behaviour; it is offered in the third year unit Ethics and Financial Services (MAA350), an auditing unit in the School of Accounting, Economics & Finance, Faculty of Business & Law, Deakin University, Burwood Campus.

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

Strategy in brief: A three-pronged strategy employed in the Curtin Business School, Curtin University of Technology at first year unit level. Students are enabled to develop and enhance their understanding of the importance of non-technical skills in accounting and be 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) that entails 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 Big 4 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.

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; taught in the first year unit Accounting for Managers, (BUSN1001), at Flinders University.

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 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.

Strategy 10: Teamwork skills

Strategy in brief: 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:

- contract development skills for individual responsibilities of group members undertaking group assignment in the unit Management Accounting and Decision Making (ACCT5002);

- documenting 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; and

- the capstone unit Contemporary Issues in Auditing (ACCT6007), available as a major subject area in the Master of Professional Accounting and Master of Commerce, illustrates some of the methods used in developing teamwork within the classroom through assessment tasks.

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 in Management Decision Making (HBC222), a mandatory unit for accounting and management majors, an elective for everyone else.

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). 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.

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 at 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.

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 of study as well as in a postgraduate accounting unit of study. Here it is illustrated in relation to Financial Statement Analysis (ACCG350) as taught since 2002 (based on Radich, Wright & Howells 2007).

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; it 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).

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 the 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'.

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

Strategy in brief: 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 the first-year accounting course (Introductory Financial Accounting, ACCG 105) at Macquarie University. There are three content-based written assignments,

preceded by compulsory, but ungraded, exercises intended to prepare students for the final writing-up of the assignment tasks. Answers are written in the format of business documents. The compulsory exercises are content-focused and modelled on 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.

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). This provides a learning context in which both internal and off-campus students can solve dilemmas against a backdrop of authentic workplace activities and practices, enabling them to develop higher order thinking skills, the ability to communicate, work in teams, and solve ill-structured problems in the advanced core auditing unit Auditing & Professional Practice (ACCT19064) - at Central Queensland University.

Summary

The eighteen strategies outlined in this chapter constitute approaches to the development and assessment of non-technical skills in professional accounting programs in Australia. These are the strategies that respondents to the university survey were willing to share with the project team. We are indeed very grateful to those colleagues who took the time to initially complete the survey and then to provide further details of their strategy to the team. The amount of evidence about the effectiveness of many of these strategies is limited because many have been used for only one semester. We hope that your interest has been sparked and that you will seek more detail about the strategies in Volume 2. 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

Chapter 7 – Lessons learned for future projects

Research approach

In this project we adopted a similar research methodology to the *Business as Usual* scoping study (Freeman *et al.* 2008). Our action research involved multiple stakeholders across Australia who, when interviewed for this project by the project team, engaged in critical, constructive reflection about the needs of accounting education.

Communicating with key stakeholders

Project team

Three project team meetings were held during the course of the project, one of them prior to the Australian Business Deans Council Teaching and Learning (ABDCT&L) Network meeting. These face-to-face meetings were extremely valuable for the success of the project.

The project leader brought to the *Accounting for the future* project findings and 'lessons learned' from the *Business as Usual* project where he was a team member. One such 'lesson' was the importance of having an agenda that included a list of items identified at the previous meeting, as well as strategic and operational issues. Another was the realization that if members enjoyed working together they were more likely to work effectively as a team. To engender an atmosphere of fun and goodwill, he ensured that each team meeting had a social component – either a meal or some drinks at its conclusion.

Teleconferences were held as required and these allowed team members to report on their activities. The teleconferences were a challenge for the team given the busy schedule of team members, many of whom hold senior administrative positions at their respective universities. A suggestion for future project teams is to diarize a regular time for teleconferences and then cancel when necessary.

Members of the project team had a wide range of skills and backgrounds, including leadership, qualitative and quantitative research skills, extensive networks among the profession, professional and industry associations, team-leadership and management skills. In addition four of the five team members were either current or past associate deans of teaching and learning and this provided a significant amount of knowledge and experience in teaching and learning issues, and the fifth team member was an active writer on accounting education and a former president of the Accounting and Finance Association of Australia and New Zealand. Further, two members were heads of the accounting disciplines at their respective universities. The extensive contacts of team members were extremely important for the success of this project.

External stakeholders

According to the rules of the ALTC, projects with a budget of less than $100,000 are not required to conduct an external evaluation. However, a few months into the project *Accounting for the future* team members decided that appointing an external evaluator would be prudent and beneficial. Whereas it was too late for significant formative

evaluation, the engagement of Patrick Boyle as an external evaluator provided valuable advice prior to Stage Two, and his summative evaluation adds credibility to this project (a summary of his evaluation is provided in Chapter 9 of this report).

Managing busy people

As noted in the *Business as Usual* scoping study, "Learning effective ways of accessing busy people quickly – by email, phone or through personal assistants - is very important as not all people have the same work practices." (Freeman et al, 2008, p.37). The single greatest challenge for the project manager was contacting and arranging with academic leaders on the project team, as all were extremely busy people with significant administrative responsibilities. While this was factored into project planning, it did make arranging teleconferences challenging, as mentioned above.

Ethics applications

There was considerable delay with the start of the project as it was necessary for all participant universities to give ethics approval, even though this was provided through the host university. This is an issue that is perhaps best handled by the ALTC, (notwithstanding different state privacy laws governing ethics approvals). Should it be necessary for all member universities to give ethics approval if this is provided by the host university (as it adds considerable time to a project)?

Technology

The project team experienced considerable problems and frustrations in managing the transmission of the audio recordings of interviews. WebCT was used to share access to recordings but this was problematic. Whereas a shared commercial site would be more effective there were concerns about ethical issues to do with commercial sites. In addition the uploading and downloading of audio files presented challenges. There was also an issue with incompatible audio equipment where in one case special software was needed to convert audio files. Therefore, it is suggested that future projects ensure that all team members use compatible technology like MP3 files for audio recordings.

Chapter 8 – Summary and limitations

Summary

The project started in October 2007, with an ambitious set of goals to be achieved within 12 months. This timeline had to be extended because of the constraints of university teaching calendars and the demands placed on the project team members. Nevertheless, although the project took some 18 months to complete, the evaluation statement in Chapter 9 confirms that the project has achieved its major goals.

The level of engagement from external stakeholders and university colleagues in *Accounting for the future* has been extremely valuable. The project team has a significant amount of data that, besides what is presented in this report, will serve as a valuable resource for future conference and journal papers, in keeping with its extended dissemination strategy.

The analysis of interview transcripts in Stage One of the project delivered strong messages about the importance of non-technical skills in areas of recruitment, training and ongoing workplace skills development. Communication, in all its forms, coupled with teamwork, problem solving, self-management, interpersonal skills and initiative and enterprise were highly sought after in graduates and also made a difference in advancement within the workplace. These skills were often used as discriminators in recruitment when employers were faced with a choice of applicants of similar academic merit; employers chose the student who displayed strengths in the non-technical areas. As for technical skills, employers generally had modest expectations. They looked for general understanding and competence and a willingness and a capacity to learn, but were content or resigned to undertake much of the technical training themselves. Those stakeholders working in small business, and to some extent in regional areas, required stronger technical skills in graduates because of their limited facility for in-house training. On the issue of who was responsible for developing both technical and non-technical skills, there was a clear expectation that this was the role of universities.

In Stage Two of the project eighteen strategies were solicited, providing a variety of approaches to the development and assessment of non-technical skills in professional accounting programs in Australia. These are by no means a complete synopsis of strategies being practiced around Australia; they are a sample that respondents to the university survey were willing to share with the project team. We are grateful to colleagues who took the time to complete the survey and then to provide further details of their strategy to the team. As noted in Chapter 6, the amount of evidence about their effectiveness is limited given that many have been implemented recently.

Limitations

In a project with a budget of $100,000 and a limited timeline, it was possible to interview only a small sample of stakeholders from representative groups across Australia. We included ample representatives from large, medium and small-size accounting firms, and the corporate for-profit sector, but few representatives from small business and the not-for-profit and public sectors.

Time and resource limitations, as well as the requirement to deliver specific outcomes for the Australian Learning and Teaching Council, ensured that a pragmatic approach to project management was adopted. Decisions needed to be made within tight time constraints to ensure completion by deadlines and time constraints had to be balanced with gaining data of sufficient quality and quantity to provide evidence to warrant specific findings. With more time, we would have followed up the university surveys to solicit more strategies from colleagues.

Chapter 9 – Evaluation

An external evaluator

The project team engaged an evaluation consultant, Mr Patrick Boyle of Q Associates, to carry out an external, summative evaluation of *Accounting for the Future: more than numbers* on the following terms:

- Advise on an evaluation strategy for the project leader and project manager;
- Develop an evaluation methodology and plan;
- Conduct data analyses and synthesis;
- Derive findings and judgments regarding the overall merit and worth of the project; and
- Write a summary statement on the evaluation

Summary Statement written by Patrick Boyle

The *Accounting for the Future: more than numbers* project was an important, timely and ambitious one. Its results have great potential for enhancing experiences and outcomes for accounting students, academics and the profession.

Through the project, stakeholders in accounting education external to universities have made it clear that accounting graduates need to be far better equipped with non-technical skills and attributes than they have been historically.

The project achieved several very valuable outcomes, incorporating its principal objectives. Its most noteworthy results were as follows:

- Generation of a clear and updated knowledge base concerning the most important non-technical skills required of accounting graduates
- Production of a set of examples of strategies/initiatives to embed (enable learning of) non-technical skills currently in use in Australian university accounting programs
- Clear enhancement of engagement with stakeholders in accounting education on the challenges associated with learning non-technical skills, particularly through the facilitation of a richer discourse on this matter

The project was led and conducted very effectively, particularly given the scope of work the Project Team set for itself (e.g. inclusiveness of stakeholders), and the limited resources available. Based on my experiences in project evaluation and management, the Project represents very good value for money.

While a very significant accomplishment, this project should not be seen as an end in itself. It has provided a timely and important input to a process that needs to be ongoing

and taken seriously over several years if accounting graduates' attributes are to include significantly enhanced non-technical skills, such as effective communication capabilities.

Such effects are possible as a result of university programs, but achievement of them will require serious and creative review and development of curricula, and learning and teaching activities in particular. This in turn will require the investment of significant funds and energy in universities to enable academics and other people to do the necessary innovation and development work. In this project the offers made by so many external people, to collaborate with and help the universities, is a very positive outcome. I urge academic leaders, funding organizations such as the ALTC, and accounting professional bodies to support well-conceived follow-up initiatives to advance the work of the *Accounting for the Future: more than numbers* project, particularly ones that seek to harness creative and substantive collaborations between key stakeholders.

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