Preparing accounting students for success in the professional environment: enhancing self-efficacy through a work integrated learning program

NAVA SUBRAMANIAM,* BRETT FREUDENBERG
Griffith University, Nathan Campus, 170 Kessels Road, Nathan, Queensland, Australia 4111

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This study provides empirical evidence of the effect of a simulated work integrated learning (WIL) program on students' self-efficacy within an accounting context. An Accounting WIL Program was designed as a two-staged module using information seminars, networking sessions and in-depth workshops that helped develop final year accounting students' understanding of the accounting profession as well as some basic skills expected of a new recruit. Data from a questionnaire survey of 35 participant students indicates that the students perceived greater self-efficacy upon completion of the WIL program, and that male students appeared to show greater self-efficacy for selected items.
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An important trait demanded by employers is for graduates to be able to work confidently and effectively when they enter their profession (National Committee of Inquiry into Higher Education, 1997). Work integrated learning (WIL) programs have been used to develop students' competences (Arnold et al., 1999), and prior studies indicate substantial personal development for students who participate in such programs (Day et al., 1982). WIL programs have been commonly described as "educational programs which combine and integrate learning and its workplace application, regardless of whether this integration occurs in industry or in the university and whether it is real or simulated" (Atchison et al., 2002, p. 3). There are a number of possible models for a WIL program, such as: 'mentored employment', 'university/industry research', 'supervised work experience', 'customized accredited workplace learning', 'enterprise development and entrepreneurial programs', and 'simulations' (Atchison et al., 2002).

This paper reports the effect of a simulated WIL program called *Accounting Graduates: Employment Ready* (hereafter referred as the 'Accounting WIL Program') on the self-efficacy of a group of soon-to-graduate accounting students. Self-efficacy is a central concept in Bandura's social cognitive theory, where it is defined as "beliefs in one's capabilities to organize and execute the courses of action required to produce given attainments" (Bandura, 1997, p. 3). The level of an individual's self-efficacy is seen to be an important determinant of how well he or she copes with learning and performing at the workplace. It has also been argued that self-efficacy plays a significant role in scholastic achievement (Tucker & McCarthy, 2001; Bandura, 1997). This is because individuals' self-efficacy is seen to influence their course of action as well as how much effort they will expend in given situations. Given that WIL programs are structured to increase job knowledge and skills of students, which in

* Correspondence to Nava Subramaniam, email: n.subramaniam@griffith.edu.au

turn tend to improve their attitude and behavior toward work readiness (Hughes & Moore, 1999), such programs are also likely to impact students' self-efficacy. However, the empirical evidence on how WIL programs may enhance student self-efficacy remains limited and unclear. In particular, given the recent push by the accounting profession for more integrated WIL programs at universities, a better understanding of the development of accounting students' self-efficacy through WIL programs is both timely and warranted.

The key objectives of the Accounting WIL Program were to help soon-to-graduate accounting students: (a) develop effective strategies to manage their search for employment and job interviews, including the preparation of a curriculum vitae appropriate for the accounting graduate, and interview skills encapsulating accounting-based technicalities; (b) enhance their professional skills at the entry level which includes a clear understanding of the work arrangements and the practical basics of an accounting and office practice; (c) build communication and personnel skills through workshops and interaction with mentors, senior accountants, and their peers, and (d) develop a better understanding of career options, including pursuing an academic career through an honors program.

The enhancement of the accounting students' self-efficacy is seen to lead to several possible outcomes. First, accounting graduates who are confident of their skills and knowledge are more likely to be hired. Second, having higher levels of self-efficacy in turn is likely to bolster the performance of the new graduate as he or she is able to learn more quickly as a result of a positive and confident attitude. In particular, since accounting involves practical and communications skills, students who have greater belief in their skills are more likely to approach technical training more confidently. Third, universities that produce students with high self-efficacy will ultimately enhance their reputation for developing high quality graduates.

In the next section, the theoretical background for the study is provided, followed by the development of the research hypotheses. The research method and the results of the study are discussed in the subsequent sections. The conclusions, limitations and areas for future research are then presented in the final section of the paper.

THEORETICAL BACKGROUND

Bandura describes self-efficacy as individuals' beliefs, thoughts, and feelings about their personal capabilities that affect how they exercise control over their own level of functioning and, in turn, their performance (Bandura, 1977, 1986). Further, the concept of self-efficacy may be viewed as comprising generalized and task-specific dimensions. While generalized self-efficacy pertains to one's confidence in one's own coping skills which can be manifested in a wide range of challenging situations, task self-efficacy is more domain or context specific (Bandura, 1997). By contrast, the concept of self confidence tends to relate more closely to a personal predisposition or characteristic dealing with self-worth (Vrugt et al. (1997). Understanding self-efficacy is important, as perceptions of self-efficacy can be the determinant of an individual's behavior in a given situation. Previous studies indicate that self-efficacy is a significant determinant of behaviors such as: achievement strivings, academic persistence and choice of career opportunities, and career competency (Bandura, 1982). More specifically, individual self-efficacy has been found to be positively related to individual performance and satisfaction (Bandura, 1997; Gist & Mitchell, 1992). In a team environment, lower individual self-efficacy does not inhibit individual satisfaction and performance when the team is performance is good (Chowdhury et al., 2002). Chowdhury et

al. (2002, p. 355) argue that self-efficacy is a "growing process," which can be improved through positive feedback. Other studies by Zimmerman et al. (1992) and Bouffard-Bouchard et al. (1991) suggest that students with higher self-efficacy can make better use of cognitive strategies and display better conceptual problem-solving abilities.

Self-efficacy can be developed through learning, experience and feedback (Gist & Mitchell, 1992). Generally it is contended that the following four categories of experiences lead to the development of self-efficacy: mastery experiences, modeling, social persuasion, and judgments of own physiological states (Bandura, 1982; Chowdhury et al., 2002; Gist, 1987; Wood & Bandura, 1989).

Mastery experiences are seen as the most effective way of developing self-efficacy and occur when a student is given the opportunity of mastering an idea or concept (Chowdhury et al., (2002)). Prior studies have used service learning as a form of education to facilitate a mastery experience for students, so students were able to practice the skills they had been taught in the class (Tucker & McCarthy, 2001). Modeling enhances self-efficacy through observation and social comparison (Tucker & McCarthy, 2001). Observation provides individuals the opportunity to see how others have managed difficult situations; whereas through social comparison individuals can see similar individuals succeed.

Another way of developing self-efficacy is through verbal persuasion, which occurs when individuals receive realistic encouragement, and the more credible the source the stronger the development (Wood & Bandura, 1989). Finally, individuals' self-efficacy can be also be developed through increasing awareness of their physiological state when confronted with a task, as they may interpret this as predicator for poor performance. If individuals can modify their physiological state, for example by reducing stress levels, self-efficacy may be increased (Wood & Bandura, 1989).

HYPOTHESES DEVELOPMENT

Self Efficacy and WIL Programs

A WIL program could facilitate some or all of the category of experiences that are considered important for the development of self-efficacy, including mastery experiences, modeling, social persuasion, and judgments of own physiological states (Bandura, 1982; Chowdhury et al., 2002; Gist, 1987; Wood & Bandura, 1989). For example, it is argued that a WIL program can assist students in the transition from pupil to practitioner (Fletcher, 1990), not only through improving disciplinary knowledge but also by exposing the students to the practicalities of application of such knowledge in a real-world context (Crebert et al., 2004). Fletcher (1990) suggests that WIL experiences may aid the development of self-efficacy through mastery (performance accomplishments) and verbal/social persuasion (feedback loop). Students who are able to observe and gain feedback from mentors and senior professionals in the field are likely to have a significant effect on their understanding and self-efficacy. This is supported by the findings of Coll et al.'s (2001b) study of cooperative education, where domain-specific knowledge and feedback from work supervisors were found to increase self-efficacy of students in science and technology. Furthermore, work by Harvey et al. (1997) reveals that students involved in a WIL program found through observation and personal experience in the workplace environment, that they were able to gather a richer understanding of what the key attributes of success are, thus leading to a greater sense of self-confidence (Harvey et al., 1997). In other words, a WIL program could

act as the conduit between university and the workplace to give a contextual nature to the theory learnt at university, thereby assisting in transferability of knowledge learnt. This could help address the desire of students to have "links" between what they are learning in the classroom and the theory's application in the workplace (Crebert, et al 2004, p. 157). Consequently, a WIL program can enrich the students' attitudes, as well as engendering confidence in their ability to learn and progress with their future employers.

Based on the discussion above, the following research hypothesis is suggested:

Hypothesis 1: An Accounting WIL Program will improve soon–to-graduate accounting students' self-efficacy.

Self efficacy and Gender

Prior studies indicate that gender may affect self-efficacy on certain tasks (Lent et al., 1994). In particular, it is argued that females may have a weaker sense of self-efficacy that they can master the requirements of some traditionally male pursuits such as mathematics (Bussey & Bandura, 1999) and entrepreneurship (Wilson et al., 2007). Accounting being a traditionally male-dominated profession may impact females' confidence levels in terms of communication and identity with the profession. For example, a lack of socialization and other experiences, and the limited number of female role models at partner levels in accounting firms, may work to undermine the self-efficacy of female accounting students compared to their male counterparts.

Based on the discussion above, the following second research hypothesis of this study is as follows:

Hypothesis 2: Male student participants in an Accounting WIL Program will exhibit greater self-efficacy than female student participants.

RESEARCH METHODOLOGY

Participants

Data were collected from 35 students in an undergraduate business degree who were majoring in accounting and were soon-to-graduate (i.e., within approximately 9 months of completing university). Nineteen were male and 16 female, and their age ranged from 18 to 51 years, with the average being 27 years. Only 17% of the students had prior accounting work experience, although 75% had had some past general work experience. About 54% of students identified themselves as domestic students, with the remaining 46% identifying as international.

Design of the Accounting WIL Program

All participants were enrolled in a two-stage workshop series that entailed a simulated Accounting WIL Program designed to develop student knowledge and skills in their career planning, and an introduction to the practicalities of workplace arrangements in an accounting firm. Below is a brief summary of the design, and a more detailed description is provided as an appendix.

The Accounting WIL Program was conducted on campus during the university holiday periods. Employers, industry representatives, career development officers and industry

trainers were invited to participate at different sessions. Using a simulation WIL format meant that it was possible to structure the delivery to ensure a step-by-step development of knowledge and skill-sets. Particularly, it meant the four categories for the development of self-efficacy (mastery, modeling, verbal/social persuasion and physiological states) could be interwoven into the Accounting WIL Program at appropriate times. It also meant the costs (both in dollars and time) could be controlled. Furthermore, given that accounting programs at the undergraduate level have been known for being fairly rigorous and demanding on students' time, a simulated program during university holiday periods makes it a more practical option to run on campus.

Stage One of the Accounting WIL Program focused on introducing the more practical aspects of the accounting profession that affect students as they prepare to transit into the workforce, as well as preparing for the job application and interview process. The initial session introduced students to what working in the accounting profession was like and what it involved. This was followed by a human resource (HR) panel, with representatives from industry, government and accounting firms discussing the graduate recruitment process. The aim was to develop students' self-efficacy through such things as mastery (as they were able to learn about expectations and likely interview format); and modeling (they could compare themselves to stories told of prior experiences).

In the afternoon, there was a workshop on CV preparation and covering letters, reflecting on comments from the HR session. Students then had to swap their CV with other students and review them given the prior discussion. The next session focused on developing interview skills. This included compiling potential questions that could be asked, as well as ideas for potential answers. Students then undertook a series of mock interviews. Again this provided opportunities for the development of self-efficacy, for example through verbal persuasion (students receiving feedback and encouragement from other students as to how they conducted themselves); and physiological state (students had the opportunity to experience the emotion and tension that can occur in an interview process).

Day two of Stage One opened with a networking breakfast with industry representatives. The breakfast provided students with the opportunity to discuss the recruitment process, what professional life was like and available career opportunities. The following session on day two was a panel session of major professional bodies in the accounting field (including Certified Practicing Accountant - Australia, Institute of Chartered Accountants and Tax Institute of Australia). This part of the program aimed to draw on verbal persuasion and social comparison to develop self-efficacy. The session ended with a discussion on future studies available at university; including distinguishing honors from masters and how such programs may assist students in improving their career potential.

Stage Two of the Accounting WIL Program was a two day workshop in the vacation between semester one and semester two, and focused on the more practical skills and knowledge expected from graduates who have just entered into the workforce. The initial session was a seminar on how an accounting practice is run, and looked at the variety of services provided beyond accountancy. The next session focused on how budgets are formulated for quoting on accounting jobs, and how team dynamics can influence this. The next session looked at client communications, where students were advised on strategies in effective letter writing and verbal conversations. Demonstrations and examples for these were provided. The afternoon of day one looked at how graduates can conduct research in order to solve some of the problems they will be confronted with in the work place. To assist with this, a number of

research databases and sources were demonstrated to students, as well as outlining a 'best practice approach'. Students subsequently had the chance to use a variety of accounting software that is commonly used in accounting practices. These sessions enabled students to improve the expertise gained by their experience, and thereby improve self-efficacy.

Day two provided an opportunity for students to master the ideas and practices covered in day one. This was achieved as students were provided with a detailed case study which required them to perform a cash flow analysis, to prepare and generate a working client file, and to start preparing a client's tax return with future queries to clarify issues. Students were then introduced to strategies for dealing with time management and client negotiations. There was a further networking opportunity for students to talk to professionals at lunch time, and to gain insights on strategies that new graduates may employ at the start of their career. Such interactions were seen to bolster verbal persuasion effects on students' self-efficacy.

Procedure

A survey instrument was administered at the end of the Accounting WIL Program. Of the 39 students who had participated in the workshops; some 35 students completed the survey questionnaire. The four non-responses relate to students who had left the venue early on the second day due to personal commitments, and attempts to contact them through the university contact details were unsuccessful. It is possible that their contact details on the university system were not up-to-date. Participation in the survey was fully voluntary, and there were no time limits nor any incentives offered.

Survey Instrument

The measurement of self-efficacy in prior work has focused on task-specific as well as generalized self-efficacy (Bosscher & Smit, 1998; Chen & Gully, 1997; Kirk & Brown, 2003). General self-efficacy scales have demonstrated valid associations with initiation and persistence in behavior (Scherer et al., 1982). However, it is argued that task-specific items will better predict individual behavior at work. For instance, Wang and Richards (1988) provide empirical support indicating that task-specific measures could outperform a general efficacy scale in the prediction of performance on cognitive tasks.

For the study a 16-item measure of self-efficacy was adopted, comprising of both task specific items and of generalized measures (Table 1 has the full set of items). The first eight items of the questionnaire was adapted from Chen et al.'s (2001) general self-efficacy scale. Chen et al. (2001) demonstrated that this scale correlates more highly with several motivational variables including goal orientation and performance. Some examples of the items in this section used in this study include: "My belief that I can succeed in almost any endeavor to which I set my mind," "My belief to overcome successfully many challenges", and "My certainty that I will accomplish difficult tasks when faced with them." In terms of task-specific items, we developed another eight items where each participant was required to respond to more accounting related self-efficacy beliefs such as "My confidence in beginning a career in accounting," "My confidence in being able to research accounting and tax issues confidently", and "My confidence in utilizing best practice approach as an accounting professional." The lead directive for each item was "Please indicate the extent of improvement you may have experienced for each of the following items," and a 5-point scale was provided to participants to respond with, where 1=no change and 5=great improvement.

The survey instrument also included questions on how satisfied students were with the Accounting WIL Program overall, and demographic questions about the participants' background.

RESULTS AND DISCUSSION

Overall Satisfaction with the Accounting WIL Program

The overall satisfaction with the Accounting WIL Program was evident, with 97% of participants either strongly agreeing (37%) or agreeing (60%) that they were satisfied with the Accounting WIL Program. Only one attendee reported to being uncertain. Similarly, 97% of participants either strongly agreed or agreed that the Accounting WIL Program was relevant to their professional needs.

Self Efficacy

In terms of perceived improvement in self-efficacy, Table 1 below provides a detailed outline of the responses to the 16 self-efficacy dimensions. For the majority of these sub-dimensions, more than half of the respondents indicated significant improvement or great improvement in their confidence and self-belief levels after having completed the Accounting WIL Program. Thus, Hypothesis 1 of this study is supported; in that participation in a simulated accounting WIL Program is likely to lead to greater self-efficacy of the students. Further, Table 1 also indicates that there does not appear to be much distinction between changes in perceived improvements between generalised self-efficacy measures and task-specific efficacy items. In most cases, the majority of participants seem to perceive significant improvements for all items.

Further analysis also was undertaken using non-parametric tests (Mann-Whitnet U-test) for assessing differences in perceived level of improvement for each self-efficacy item between male and female students. As shown by the results in Table 2, there is a statistically significant difference in only four of the 16 items where males indicated greater self-efficacy in the following items: "My certainty that I will accomplish difficult tasks when faced with them," "My ability to overcome successfully many challenges," "My ability to perform quite well even when things are tough," and "My confidence in being able to research accounting and tax issues confidently." ($p < 0.05$). Thus, hypothesis 2 is only partially supported. Interestingly, three of the items relate to self-efficacy in the generalized items and in all cases males showed greater self-efficacy.

Additional Commentary

We also requested students to provide written comments on the Accounting WIL Program. 75% of the students provided additional comments, with most of the comments being positive and clearly indicating that the participants had gained considerable confidence in various accounting-related skills.

Students felt they had gained "lots of information regarding getting a job" and that they now had "insider knowledge". Encouragingly, 93% of students strongly agreed or agreed that the networking breakfast session in Stage One provided them with a good opportunity to meet accounting professionals, and gain insights into the practical issues when commencing work in an accounting firm. It appeared the structure of the program assisted this:

TABLE 1
Student perceptions of their improvement in self-efficacy after completing the Accounting WIL program (N=35)

		Perceived Improvement (%)				
		No change	Slight	Average	Significant	Great
Generalized Self-efficacy Items						
1.	My belief that I will achieve most of the career goals that I have been able to set for myself	0	14	34	46	6
2.	My certainty that I will accomplish difficult tasks when faced with them	3	6	31	49	12
3.	My general belief that I can obtain outcomes that are important to me	3	6	31	49	11
4.	My belief that I can succeed at almost any endeavor to which I set my mind	9	3	43	34	11
5.	My ability to overcome successfully many challenges	6	12	27	44	12
6.	My confidence that I can perform effectively on many different tasks	6	17	26	40	11
7.	My ability to do most tasks very well compared to other people	6	6	37	40	11
8.	My ability to perform quite well even when things are tough	9	23	31	26	11
Task-specific Items						
9.	My confidence in beginning a career in accounting	3	7	35	43	12
10.	My ability to progress through the ranks in my new place of employment	0	12	44	38	6
11.	My confidence in being able to research accounting and tax issues confidently	11	14	20	40	14
12.	My belief in being able to better manage time at work	9	3	31	43	14
13.	My confidence in my ability to communicate with clients and colleagues in an effective manner	3	11	43	20	23
14.	My confidence in utilizing best practice approach as an accounting professional	3	9	23	54	11
15.	My confidence in approaching accounting tasks assigned to me	9	3	43	34	11
16.	My ability to be more effective in seeking employment and in job interviews	3	9	40	34	14

TABLE 2
Gender differences in mean rank for perceived improvement in self-efficacy after completing the Accounting WIL program (N=35, Mann-Whitney)

	Mean rank (mean score)		*p*
	Male	Female	
Generalized Self-efficacy Items			
1) My belief that I will achieve most of the career goals that I have been able to set for myself	19.63 (3.58)	16.06 (3.25)	ns
2) My certainty that I will accomplish difficult tasks when faced with them	20.76 (3.79)	14.72 (3.38)	0.03
3) My general belief that I can obtain outcomes that are important to me	19.42 (3.53)	16.31 (3.19)	ns
4) My belief that I can succeed at almost any Endeavour to which I set my mind	18.72 (3.61)	16.13 (3.25)	ns
5) My ability to overcome successfully many challenges	20.45 (3.58)	15.09(3.00)	0.05
6) My confidence that I can perform effectively on many different tasks	20.08 (3.53)	15.53 (3.13)	ns
7) My ability to do most tasks very well compared to other people	20.45 (3.68)	15.09 (3.19)	ns
8) My ability to perform quite well even when things are tough	20.47 (3.37)	15.06 (2.75)	0.05
Task-specific Items			
1) My confidence in beginning a career in accounting	18.32 (3.58)	17.63 (3.44)	ns
2) My ability to progress through the ranks in my new place of employment	16.94 (3.33)	18.13 (3.44)	ns
3) My confidence in being able to research accounting and tax issues confidently	21.00 (3.63)	14.44 (2.94)	0.02
4) My belief in being able to better manage time at work	18.53 (3.63)	17.38 (3.38)	ns
5) My confidence in my ability to communicate with clients and colleagues in an effective manner	20.03 (3.68)	15.59 (3.25)	ns
6) My confidence in utilizing best practice approach as an accounting professional	20.29 (3.79)	15.28 (3.44)	ns
7) My confidence in approaching accounting tasks assigned to me	17.89 (3.63)	18.13 (3.75)	ns
8) My ability to be more effective in seeking employment and in job interviews	17.55 (3.42)	18.53 (3.56)	ns

Pulling together several elements into a single forum helps to develop one's ideas and enables us to explore areas coherently. Meeting professionals in the field helps gain an understanding of the prospective work environment and career paths.

Very informative, 1st day was a really good confidence boost, was great to speak to professionals the next day with confidence. All professionals that I spoke to were very effective at answering questions and were honest.

Evidence of improvement of self-efficacy through modeling is demonstrated in the following student comment:

Getting the opportunity to meet accounting professionals who have been through what you are going through is invaluable.

Students can get a better understanding of the field which would enhance their confidence and job searching and working skills.

This is a good start for a new graduate to enter into the workforce. The workshop encouraged me to face the workforce pressure with confidence.

The Accounting WIL Program appears to have been able to convey some sense of realism of an accounting workplace. Students' comments included various expressions such as: "it gave them a chance to understand the real world," "make[s] you more aware about what is out there when you finish," and "real life stuff."

It [i.e., the Accounting WIL Program] provided me with practical and fundamental skills that are vital in the workplace. Had I completed this course before doing vacation training with KPMG, I would have been much more prepared. Employers expect you to know the things that we learnt in the program even though you are not really taught things at university. It should be part of the degree.

Practical aspect of accounting (especially the Tax Return Study Case) and brief look at software accounting firms are using was a great help to give confidence to students who only cover theories and textbook cases.

In addition to improvements in self-efficacy, the Accounting WIL Program appears to have provided students with the "links" with their university learning and the workplace, thus enhancing transferability of knowledge:

The workshop addresses issues between academic learning and real office work/employer expectations.

Students clearly saw the benefit of the accounting related Accounting WIL Program, as 94% either strongly agreed or agreed that it should be a permanent part of the business course offered by the university.

Suggestions for Improvement of the Accounting WIL Program

Comments for improvement of the Accounting WIL Program focused on extending the program to allow for more case studies, thereby enabling students to have more opportunity "to get down and dirty." Students also wanted more and longer opportunity to practice using software and research databases.

LIMITATIONS

The results of this study, however, needs to be interpreted with caution. Several limitations of the study exist, namely that the sample size is relatively small. Future research could involve a larger group of researchers from different universities to test the impact of such simulated WIL programs in accounting nationwide. Another limitation of the study is that it involves a simulated WIL Program. Student responses could be different, possibly stronger, if their learning had taken place in a real world office or environment. Further, having only a total of four days may be too short a time frame for deep learning to occur. Thus, further research involving a longer time period in real-world settings may better inform such a WIL program.

CONCLUSION

This study provides evidence of the impact of an Accounting WIL Program on accounting students' self-efficacy. In particular the use of accounting professionals and industry representatives, as well as the exposure to more practical-based tax and accounting skills, enhances a student's confidence and belief in themselves. Clearly, there is a benefit to providing an Accounting WIL Program as preparation to actual work placement, as the accounting students appear to display greater levels of self-efficacy - both from a general perspective as well as task-focused viewpoint. Furthermore, the format of the present Accounting WIL Program is seen to be effective with the participation of both the professional bodies and professional accounting firms. Given the limited resources available for conducting a WIL program, using multiple sources of mentoring and professional support appears to be efficient.

It has been stated that what "universities should guarantee is that their students will all have the opportunity to learn and develop generic skills and abilities during their undergraduate study" (Crebert et al., 2004, p. 148). The use of a simulated WIL program is not only an attractive option to build such skills but also to increase students' self-efficacy. No doubt, WIL Programs in accounting such as that designed in the present study, present significant opportunities for the promotion of students' self-efficacy in an efficient and effective manner.

REFERENCES

Arnold, J., Loan-Clarke, J., Harrington, A., & Hart, C. (1999). Students' perceptions of competence development in undergraduate business-related degrees. Studies in Higher Education, 24(1), 43-59.

Atchison, M., Pollock, S., Reeders, E., & Rizzetti, J. (2002). Work integrated learning paper: Melbourne: RMIT University.

Bandura, A. (1977). Self-efficacy: Toward a unifying theory of behavioral change. Psychological Review, 84(2), 191-215.

Bandura, A. (1982). Self-efficacy mechanism in human agency. American Psychologist, 37(2), 122-147.

Bandura, A. (1986). Social foundations of thought and action: A social cognitive theory. Englewood Cliffs, NJ: Prentice Hall.

Bandura, A. (1997). Self efficacy: The exercise of control. New York: WH Freeman.

Bandura, A., & Adams, N.E. (1977). Analysis of sell-efficacy theory of behavioral change. Cognitive Therapy and Research 1, 287-310.

Bandura, A., & Wood, R.E. (1989). Effect of perceived controllability and performance standards on self regulation of complex decision making. Journal of Personality and Social Psychology, 56, 805-814.

Bosscher, R.J., & Smit J.H. (1998). Confirmatory factor analysis of the general self-efficacy scale. Behaviour Research & Therapy, 36(3), 339-343.

Boyd, N., & Vozikis, G. (1994). The influence of self-efficacy on the development of entrepreneurial intentions and actions. Entrepreneurship Theory & Practice, 18(4), 63-77.

Bussey, K., & Bandura, A. (1999). Social cognitive theory of gender development and differentiation. Psychology Review, 106, 892-903.

Chen, G., & Gully, S.M. (1997, August). Specific self-efficacy, general self-efficacy, and self-esteem: Are they distinguishable constructs? Paper presented at the 57th annual meeting of the Academy of Management. Boston.

Chen. G., Gully, S.M., & Eden, D. (2001), Validation of a new general self-efficacy scale. Organizational Research Methods, 4(1), 62-83.

Chen, G., Webber, S.S., Bliese, P.D., Mathieu, J.E. Payne, S.C., Born, D.H., & Zaccaro, S.J. (2002). Simultaneous examination of the antecedents and consequences of efficacy beliefs at multiple levels of analysis. Human Performance, 15, 381-409.

Chowdhury, S., Endres, M., & Lanis, T.W. (2002). Preparing students for success in team work environments: the importance of building confidence. Journal of Managerial Issues, 14(3), 346-359.

Coll, R.K., & Lay, M. (2001a). Using trial interviews to enhance student self-efficacy towards pre-placement interviews. Journal of Cooperative Education, 36(3), 25-36.

Coll, R.K., Lay, M., & Zegwaard, K. (2001b). The influence of cooperative education on student self-efficacy towards practical science skills. Journal of Cooperative Education, 36(2), 58-72.

Crebert, G., Bates, M., Bell, B. Patrick, C.-J., & Cragnolini, V. (2004). Developing generic skills at university, during work placement and in employment: graduates' perceptions. Higher Education Research and Development, 23(2), 147-165.

Day, J., Kelly, M.J., Parker, D., & Parr, M.F. (1982). The role of industrial training in business studies sandwich degrees. Business Education, Summer, 105-122.

Fletcher, J. (1990). Self esteem and cooperative education: a theoretical framework. Journal of Cooperative Education, 26(3), 41-55.

Gist, M.E. (1987). Self-efficacy: Implications for organizational behavior and human resource management. Academy of Management Review, 12(3), 472-485.

Gist, M.E., & Mitchell, T.R. (1992). Self-efficacy: A theoretical analysis of its determinants and malleability. Academy of Management Review, 17, 183-211.

Harvey, L., Moon, S., & Geall, V. (1997). Graduates' work: Organisational change and students' attributes. Centre for Research into Quality. Retrieved 1 August 2006 from http:// www.uce.ac.uk/crq/publications/gw/gwcon.htsn

Hughes, K.L., & Moore, D.T. (1999). Pedagogical strategies for work-based learning: IEE Working Paper No. 12. New York: Columbia Teachers College.

Kirk, A.K., & Brown, D.F. (2003). Latent constructs of proximal and distal motivation predicting performance under maximum test conditions. Journal of Applied Psychology, 88(1), 40-49.

Lent, R.W., Brown, S.D., & Hackett, G. (1994). Toward a unifying social cognitive theory of career and academic interest, choice and performance. Journal of Vocational Behaviour, 45, 79-122.

National Committee of Inquiry into Higher Education. (1997). Higher education in the learning society. London, HMSO.

Scherer, M., Maddux, J.E., Mecandante, B., Prentice-Dunn, S., Jacobs, B., & Rogers, R.W. (1982). The self-efficacy scale: Construction and validation. Psychological Reports, 51, 663-671.

Silver, W.D., Mitchell, T.R., & Gist, M.E. (1995). Responses to successful and unsuccessful performance: The moderating effect of self-efficacy on the relationship between performance and attributions. Organizational Behaviour Human Decision Process, 62, 286-299.

Tucker, M.L., & McCarthy, A.M. (2001). Presentation self-efficacy: Increasing communication skills through service-learning. Journal of Managerial Issues, 13(2), 227-244.

Vrugt, A.J., Langereis, M.P., & Hoogstraten, J. (1997). Academic self-efficacy and malleability of relevant capabilities as predictors of exam performance. Journal of Experimental Education, 66(1), 61-72.

Wilson, F., Kickul, J., & Marlino, D. (2007). Gender, entrepreneurial self-efficacy, and entrepreneurial career intentions: Implications for entrepreneurship education. Entrepreneurship Theory and Practice, May, 387-406.

Wood, R., & Bandura, A. (1989). Social cognitive theory of organizational management. Academy of Management Review, 14(3), 361-384.

Zimmerman, B.J., Bandura, A., & Martinez-Pons, M. (1992). Self-motivation for academic attainment: The role of self-efficacy beliefs and personal goal setting. American Educational Research Journal, 29, 663-676.

APPENDIX
DETAILED EXPLANATION OF ACCOUNTING WIL PROGRAM

The Accounting WIL Program was conducted on campus during the university holiday periods. Employers, industry representatives, career development officers and industry trainers were invited to participate at different sessions. Using a simulation WIL format meant that it was possible to structure the delivery to ensure a step-by-step development of knowledge and skill-sets. Particularly, it meant the four categories for the development of self-efficacy (mastery, modeling, verbal/social persuasion and physiological states) could be interwoven into the Accounting WIL Program at appropriate times. It also meant the costs (both in dollars and time) could be controlled. Furthermore, given that accounting programs at the undergraduate level have been known for being fairly rigorous and demanding on students' time, a simulated program during university holiday periods makes it a more practical option to run on campus.

Stage One of the Accounting WIL Program focused on introducing the more practical aspects of the accounting profession that affect students as they prepare to transit into the workforce, as well as prepare accounting students in their job application and interview process. The timing of Stage One, in the February holidays prior to the commencement of Semester One, was important as many interviews for accounting positions occur in early April. Students had to wear professional attire and bring in their current curriculum vitae (CV) and covering letters. The initial session introduced students to what working in the accounting profession was like and what it involved. Topics that were covered included an overview of the profession (including statistics of gender, age, work hours), what accounting firms expect from their graduates, and different career options within the profession. This was then followed by a panel of Human Resource (HR) representatives from industry, government and accounting firms, who discussed the graduate recruitment process. This HR panel discussion was facilitated by a staff member with questions such as: "What do firms want from accounting graduates?"; "What are good things done in written applications and interviews?"; "What are bad things done in written applications and interviews?" and "What format can applications and interviews occur in?" As this panel discussion was facilitated by a staff member, it provided a safe environment for students to hear about this recruitment process, and through listening, students' self-efficacy could be developed. This was because there was mastery (as they were able to learn about expectations and likely interview format); modeling (they could compare themselves to stories told of prior experiences); verbal persuasion (panel members conveyed verbal encouragement of how to approach and succeed through the recruitment process); and physiological state (there was discussion about how to prepare and approach an interview for success and how to overcome anxieties).

The HR panel members stayed for lunch, thus providing an informal opportunity for students to discuss with them any further queries that they might have. Such a 'networking' opportunity provided a good opportunity for practice during day two of Stage One.

In the afternoon, there was a workshop on CVs and covering letters. This initially involved students being informed about what should go into a CV, with reflection on comments from the HR session. Students then had to swap CVs with other students and review them given the prior discussion. The structure of this activity again provided opportunities for self-efficacy development through mastery (improving their CVs), modeling (being able to

observe and socially compare their CVs with others) and verbal persuasion (receiving feedback from other students about their current CV).

The next session focused on developing interview skills. Again this initially involved interactive discussion, with the students invited to reflect upon the morning's HR panel discussion on what skills need to be developed. This included compiling potential questions that could be asked, as well as ideas for potential answers. Then, to provide an opportunity for students to practice, mock interviews were conducted. This involved students forming groups of three, in which one person was the interviewee, another was the interviewer and the third an observer. The interview would be conducted for seven minutes, and then the observer would provide feedback for five minutes. Students had an opportunity at undertaking each of these roles, and there were three mock positions being applied for (one government, one industry and one in an accounting firm). This process provided opportunities for development of self-efficacy through mastery (the opportunity to practice interviews); modeling (being able to observe and socially compare themselves with other students being interviewed and hear what their answers were); verbal persuasion (students receiving feedback and encouragement from other students on how they conducted themselves); and physiological state (students had the opportunity to experience – to a limit – the emotion and tension that can occur in an interview process). A similar strategy was also undertaken by Coll et al. (2001a) who report the use of trial interviews as successful in improving student self-efficacy towards pre-placement interviews.

Day one concluded with a wrap-up of the day's experience and the following day's activities were then discussed. Particularly, on the morning of day two there would be a two hour networking breakfast with industry representatives. The invited representatives ranged from graduates to senior practitioners, and included representatives from industry, government and accounting firms. To aid students' confidence they were provided short CVs of the professionals (this provided students with background information they could familiarize themselves with to help with questions) and were given strategies, such as breaking up into pairs when networking to help their confidence.

Day two of Stage One opened with the networking breakfast with industry representatives. The aim of the breakfast was to provide students with the opportunity to discuss the recruitment process, what professional life was like and the variety of career opportunities available. There were a number of short speeches, including one from a partner of a large accounting firm giving advice to soon-to-be-graduates. This session provided students with the opportunity to develop their self-efficacy through mastering an experience, as well as verbal persuasion in getting encouragement (which is stronger, given the credible source of the professionals involved: Wood & Bandura, 19989).

The following session on day two was a panel session of representatives from major professional bodies in the accounting field (including CPA Australia, Institute of Chartered Accountants and Tax Institute of Australia). This provided an opportunity for people from these bodies to clarify their roles, how they can assist students with their current studies, graduate recruitment processes and, in the future, their professional careers. The session following then discussed future studies available at University; including distinguishing Honors from Masters and how gaining these can assist students in employment and their careers. The final session reflected on the two days, summarizing key ideas learnt and identifying potential sources of help (including the University's own internal career support unit and CV resources).

Stage Two of the Accounting WIL Program was a two day workshop in the holiday between semester one and semester two. Stage Two focused on the more practical skills and knowledge expected from graduates when they first enter the workforce.

The initial session was a seminar on how an accounting practice is run. The various services that are provided beyond generic accounting were looked at, as well as how income is generated through the charging of hours, and HR challenges currently being experienced. The next session focused on how budgets are formulated for quoting for accounting jobs, and how team dynamics can influence this. These background sessions provided students with the opportunity for development of their self-efficacy through modeling (listening to real life situations) and verbal persuasion.

The next session looked at client communications, where students were advised on strategies for effective letter writing and verbal conversations. Demonstrations and examples of these were provided. On the afternoon of day one, graduates were shown how to conduct research to solve problems they are confronted with in the work place, with a number of research databases and sources demonstrated, known as 'Best Practice Approach'. Then students were shown a variety of accounting software commonly used in accounting practice, and also had the opportunity to use it as well. These sessions enabled students to enhance their mastery of their experience, and thereby improve self-efficacy.

Day two provided an opportunity for students to master the ideas and practices covered in day one. This was achieved through students being provided a detailed case study which required them to perform a cash flow analysis, prepare and generate a working client file, to start preparing a client's tax return with future queries to clarify issues. Through these tasks there was feedback provided about how students went and issues raised. There was a further networking opportunity for students to talk to professionals at lunch, thus enabling them to talk to recent graduates about their experiences starting out at work. Students were then introduced to strategies for time management, career management, mentoring and potential future studies. The session concluded with a motivational speech from Ingenious. Evaluations and surveys were conducted at the end of day two.

Additionally, the team environment of the Accounting WIL Program (as students were not alone, but in a team environment with other students), hopefully meant that Chowdhury demonstrated the positive effect that a team environment could have on an individual's self-efficacy could be replicated. (Chowdhury, 2002), and also that feelings of isolation which can occur with a placement WIL program could be avoided.

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The Asia-Pacific Journal of Cooperative education (APJCE) arose from a desire to produce an international forum for discussion of cooperative education issues for practitioners in the Asia-Pacific region and is intended to provide a mechanism for the dissemination of research, best practice and innovation in work-integrated learning. The journal maintains close links to the biennial Asia-Pacific regional conferences conducted by the World Association for Cooperative Education. In recognition of international trends in information technology, APJCE is produced solely in electronic form. Published papers are available as PDF files from the website, and manuscript submission, reviewing and publication is electronically based.

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