WIL and generic skill development: The development of business students' generic skills through work-integrated learning

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Higher education stakeholders have expressed growing concern about teaching and learning performance and outcomes in business education. The emerging gap between graduate attributes and what industry requires not only refers to the lack of *employment readiness* of students, but also their generic skills. One technique that can assist in improving students' development of generic skills is work-integrated learning (WIL). WIL presents a challenge both in its formation and implementation for an Australian higher education system characterised by limited resources, large and diverse student cohorts, and the ever-present 'publish or perish' paradigm that draws lecturers' attention away from teaching and learning activities.

To address this concern, a professional development program (the 'PD Program') was developed. The PD Program is integrated into a business degree program and is designed to systematically develop students' learning, employment and generic skills, and supplement their theoretical studies. This article details the procedures that have been developed, and provides preliminary evidence on the impact of the first part of the PD Program on students' generic skill development over 12 months. It is argued that those students involved in the PD Program demonstrate significant gains in both their generic skills and associated recognition of the importance of generic skills development to their studies and professional lives compared to students who did not participate in the PD Program. These results highlight the potential gain for universities from investing the necessary resources to develop WIL opportunities for their students to assist in the development of generic skills. (*Asia-Pacific Journal of Cooperative Education, 2011, 12(2), 79-93*).

Key Words: work-integrated learning, generic skills, professional development, graduate attributes, employability

INTRODUCTION

Universities are becoming more conscious of the need to develop not only the key technical skills of their students, but also their generic skills (Australian Education Council, 1992; AC Nielsen Research Services, 2000; ACCI & BCA, 2002; Precision Consultancy, 2007). Despite this increased awareness, various studies have identified underlying concerns with students' generic skills in Australia (AC Nielsen Research Services, 2000; Kavanagh & Drennan, 2008; Jackling & De Lange, 2009) and overseas (Bennett, Dunne & Carre, 1999). This raises the issue of how universities can effectively provide their students with opportunities to develop their generic skills.

To address this critical issue, an integrated continuous orientation program, known as the professional development program (the PD Program), was created to develop student attributes. To increase the potential influence of the PD Program, industry is heavily engaged and involved with its delivery. In this way, the PD Program provides a continuous orientation program with work-integrated learning (WIL) components.

This article offers a preliminary analysis of the PD Program, relying on self-reported measures of student development in terms of generic skills of two cohorts of business

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students over a 12 month period. The remainder of this article examines the importance of generic skill development and the potential WIL has in its development. The design of the PD Program, as well as the research method, is then discussed. This is followed by a discussion of the results. The final sections then consider limitations and the potential for further research, before concluding.

THEORETICAL BACKGROUND

The focus of the PD Program on generic skills and the role WIL can play in student learning is considered below.

Generic skills

There are a number of terms that have been used to describe generic skills, such as graduate, professional, transferable, work ready and employability. This has created "semantic confusion" in conceptualising generic skills (Bennett, Dunne & Carre, 1999, pp. 72-73; Barrie, Hughes & Smith, 2009; Jones, 2009). For the purpose of this study, we define generic skills as a set of skills that have potential broad application to a range of disciplines or circumstances. For example, a student's technical knowledge of Australian tax legislation is discipline-specific, whereas the student's ability to research Australian tax legislation to identify a particular law represents information literacy – a generic skill. There is much debate surrounding generic skills, including practical constraints in its teaching (Jones, 2009), the appropriate mix of generic and technical skills (Asbaugh & Johnstone, 2000; Crebert, 2002) and the integration of generic skills into the curriculum (Barrie et al., 2009); however, these issues (albeit important) are beyond the scope of this study. Our focus is on providing evidence-based research which isolates the comparative effectiveness of different strategies in terms of developing students' generic skills (Precision Consultancy, 2007).

The focus on generic skills has seen many employers and higher education authorities articulating what generic skills are specifically. For example, the 1992 ACCI/BCA project, Employability Skills for the Future ('DEST Report') identified eight employability skills: communication, teamwork, problem-solving, initiative and enterprise, planning and organising, self-management, learning, and technology (ACCI & BCA, 2002). Employers have emphasised problem-solving, communication and team work skills in research (Harvey, Moon & Geall, 1997; AC Nielsen Research Services, 2000; Kavanagh & Drennan, 2008). For example, Weisz's study of employers and students participating in a WIL program found that employers rated teamwork, initiative and communication skills as important, whilst students rated communication skills and initiative as two of their weakest capabilities (Weisz, 2000).

Despite awareness of its importance, government and industry reports into Higher Education (AC Nielsen Research Services, 2000; Precision Consultancy, 2007; Barrie et al, 2009) and research in business education have questioned the adequacy of the tertiary sector's response to development of students' generic skills. A survey of 92 employers by Daggett and Liu found that accounting graduates' skills in writing, presenting and interaction were lacking (Daggett & Liu, 1997). Accounting graduates have reported that the focus of their degree was on technical skills, whereas employers rated generic skills above technical skills, in particular team skills, leadership and verbal communication (Jackling & De Lange, 2009). Similarly, Kavanagh and Drennan's study of accounting student and employer perceptions concluded that both employers and students believe that

tertiary programs in accounting were failing to sufficiently develop the generic skills of students. Teachers appear to share the perceptions of employers and students. Whilst teachers value generic skills, priority is given to technical skills in higher education (Jones, 2009). This, in part, may be due to difficulties in assessing generic skills as opposed to technical skills, or may reflect a lack of expertise in teachers in developing generic skills (in comparison to expertise in technical/discipline knowledge). The gap between students' generic skill levels and employer expectations illustrates the need for greater emphasis on generic skills in the curriculum to prepare students for graduate employment.

The implementation of generic skills in the higher education curriculum is critical for a number of reasons. Firstly, students with generic skills have better graduate employment prospects. Numerous reports recognise the employer demand for graduates with generic skills and, conversely, that a strong disciplinary knowledge does not of itself guarantee graduate employment (Crebert, Bates, Bell, Patrick & Cragnolini, 2004; Jackling & De Lange, 2009). For example, research in the United Kingdom found that a graduate's success at work was perceived to be more influenced by the graduate's generic skills than their specific degree (Harvey, 1999). Secondly, generic skills possess the attribute of transferability. Whilst discipline-based knowledge becomes dated and is not necessarily transferable across different jobs, generic skills rarely become obsolete and can be transferred into new career paths (Kavanagh & Drennan, 2008). WIL can assist in transferability with evidence that students who complete work placements do not encounter major difficulties in applying their generic skills in the workplace (Crebert et al., 2004). Finally, professional bodies such as the Institute of Chartered Accountants in Australia (ICAA), CPA Australia (CPA) and the Financial Planning Association of Australia (FPA) have established accreditation criteria which require universities to include generic skills development in their programs (Birkett, 1993; ICAA & CPA, 2009; FPA 2009). For the purposes of this article, the generic skills focused on are detailed in Table 1 which is discussed later.

Work-integrated learning (WIL)

WIL can equip students with the necessary generic skills by offering a "rich, active and contextualised learning experience" (McLennan, 2008, p. 4). WIL[2] programs are typically described as "educational programs which combine and integrate learning and its workplace application, regardless of whether this integration occurs in industry or whether it is real or simulated" (Atchison, Pollock, Reeders, & Rizzetti, 2002, p. 3).[3] WIL programmes are receiving increased attention in Australia, with universities being encouraged to implement them (Jancauskas, Atchison, Murphy & Rose, 1999; Precision Consultancy, 2007). One of the reasons for this greater attention is that "WIL has provided universities with an opportunity to offer a better product that students will appreciate as a pay-off for their investment" (Abeysekera, 2006, p. 7). However, criticism has been raised as to whether universities have the commitment to fund and resource WIL activities (Brimble & Freudenberg, 2010). Research on WIL programs has demonstrated increases in student

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[2] There are a number of terminologies used to describe WIL, including cooperative learning and service learning; however, the term WIL is used in this article for consistency.

[3] There are a number of possible models for a WIL programme, such as Mentored Employment, University/Industry Research; Supervised Work Experience, Customised Accredited Workplace Learning, Enterprise Development and Entrepreneurial Programs, and Simulations (Atchison et al., 2002).

job knowledge and skills, improved attitudes and behaviours towards work readiness (Hughes & Moore, 1999), substantial personal development by students (Day, Kelly, Parker & Parr, 1982) and the development of generic skills (Patrick & Crebert, 2004). In fact, higher education institutions are developing their own set of graduate attributes, drawing on generic skills research such as the DEST report, to develop WIL curriculum (Litchfield, Nettleton & Taylor, 2008). With the capacity of WIL to address concerns regarding generic skills in mind, the PD Program was developed and implemented.

DESIGN OF THE PD PROGRAM

The PD Program is integrated into a business degree (majors in Accounting and Financial Planning) and is designed to systematically develop students' learning, employment and generic skills while providing students with industry knowledge and exposure to industry. Drawing on the literature, the PD Program can be described as a "full service model" (Atchison et al., 2002, p. 3), a curriculum structure which embeds generic skills as a co-curriculum strand alongside disciplinary curricula (Barrie et al., 2009). This is enhanced by a collaborative approach with industry for generic skill development (Jackling & De Lange, 2009). As a full service model, it scaffolds generic skills development, industry awareness and exposure, and tailors the program to the unique student life cycle of the business degree.

The PD Program is delivered in the days prior to the start of each trimester (known respectively as PD#1, PD#2 and PD#3), in each of the student's three years of study. A critical element of its success is industry participation in the design and delivery of the program. Industry representatives include practitioners, human resources staff, recent graduates and the professional bodies, whom, from a student perspective, confer greater authenticity to the importance of generic skills. University staff (academic and non-academic) and external consultants conduct the remaining PD sessions. Table 1 details the generic skills considered for this study and which components of the PD Program addressed them, with 'I' indicating it was an industry conducted session.

PD#1 was held at the end of January for three days in the week prior to the start of the first trimester. This was an integrated orientation program with workshops that addressed many of the generic skills required by students as well as the more traditional orientation activities. Additional activities included forming relationships with other new and established students (through Pod activities)[4] and initial networking with industry. In addition to funding, industry assisted in the delivery of a number of sessions in PD#1 for the first year students. The major industry session held in PD#1 was a networking breakfast on the third day, which enabled students and industry (approximately 25 industry members attended) to talk to each other about university and the profession.

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[4] The idea of 'Pods' is based on the collective noun for a group of whales and consists of students, industry and academics. An individual Pod consists of approximately three first year students, three second year students and three third year students; at least one industry member, and an academic to help with facilitation. There are a number of formal and informal Pod activities designed to improve the relationship between members.

TABLE 1:
Generic skill and PD Program activities for first year students

	GENERIC SKILL	PDP #1	PDP #2	PDP #3
1	Interpersonal	• Business breakfast (I) • Pods • Campus trivia tour	• Networking lunch (I) • Interview skills workshop • Pods	• Dealing with clients (I) • Pods • Student industry conference (I)
2	Self management	• Academic planning • Personal planning (I) • Goal setting (I) • Networking skills (I) • Time Management	• Internship opportunities (I)	• Student industry conference (I)
3	Learning & adaptability	• Counselling services • Goal setting (I) • What makes a good student		• Student industry conference (I)
4	Problem-solving	• Study skills sessions		• Advanced research skills workshop • Professional framework of practice (I)
5	Concept & analysis			
6	Oral communication	• Business networking (I)	• Professional presentation (I) • Speed dating interviews (I) • Confidence in Drama	• Student industry conference
7	Team	• Pods	• Pod Olympics	• Relationship Building (I)
8	Information literacy	• timetabling, getting on-line, library databases	• Advanced Excel workshop	• Advanced Research workshop
9	Written communication	• Academic writing workshop	• Writing CVs and cover letters workshop	
10	Career & vocational	• What makes a successful graduate (I) • Business attire (I)	• What firms are looking for (I) • Different roles in the profession (I)	• Industry speakers and displays at the Student industry conference (I)

Note: This table contains example activities (not an exhaustive list) in each of the professional development programs (PDP) that run at the start of each of the three trimesters in the first year of the degree. Pods are mentoring groups and consist of students, industry and academics. (I) indicates that this was an industry conducted session.

The second instalment of the PD Program (PD#2) was held over two days in the week prior to the start of the second trimester (May). This focused on improving first year students' academic skills and preparing them for the job application and interview process. The major industry session was a networking lunch, followed by 'Speed Dating Interviews' which allowed first year students to gain confidence in dealing with industry representatives.

PD#3 occurred over two days in the week prior to the start of the third trimester (September) and focused on further improving first year students' generic and professional skills and relationships with industry partners. The second day of PD#3 was the Student-Industry Conference, which required students to present an assignment from one of their courses to an audience of peers, industry representatives and academics. Industry involvement extended to the assessment of student presentations and participation in an awards ceremony for outstanding student presentations.

RESEARCH METHODOLOGY

This study employed a longitudinal survey methodology to examine the potential impact of the PD Program on first year students (the PD Students). The instrument was administered at the start of the university year in Orientation Week in an attempt to capture students prior to their engaging extensively with the university. The instrument was readministered 12 months later at the start of the students' second year to gauge the level of student development. In addition, a control group (the Control Group) of students in a similar degree that does not include the PD Program were surveyed at similar times as the primary sample. The two cohorts of students who to date have been surveyed are those students who commenced in 2008 (referred to as Cohort 1) and 2009 (referred to as Cohort 2).

SURVEY INSTRUMENT

The survey instrument had four sections: standard demographic questions; questions about the students' satisfaction, perceptions of self-efficacy; and generic skills. The focus of this article is students' generic skills. To determine generic capabilities, students were provided with a self assessment tool (based on Lizzio and Wilson (2004)) to evaluate their level of skill development. The tool utilised ten broad capabilities, nine of which describe commonly identified areas of generic capabilities: interpersonal skills, self management skills, learning and adaptability skills, problem-solving skills, concept and analysis skills, oral communication, team skills, information literacy skills, and written communication skills. The domain of 'career and vocational management' was also measured.[5] Within each capability, there are 15 statements to ascertain students' perception of them. Respondents self evaluated each of the statements on a seven point scale, from one 'not at all a characteristic of me' to seven 'very characteristic of me'. Questions 1 to 12 relate to demonstrating the generic skill, whereas questions 13 to 15 ask questions of the relevance of the generic skill to university study, future career and interest in development. Answers to the last three questions are analysed separately to the first 12 questions.

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[5] Due to time limitations and duplications, excluded domains from the original Lizzio and Wilson (2004) tool were organisational membership, community and citizenship, personal effectiveness and professional effectiveness.

DESCRIPTIVE STATISTICS

For Cohort 1, a total of 170 useable student surveys resulted from this process (it was not mandatory for students to participate). Of these, 67 were from the PD Students in first year and 34 in the second year. For the Control Group there were 27 and 42 respondents in the first and second year surveys respectively. For Cohort 2, a total of 203 student surveys were obtained, with 93 from PD Students (65 first year and 28 second year), and 110 from the Control Group (86 first year and 24 second year). Summary descriptive statistics for the samples are provided in Table 2.

While the demographics of the PD Students are similar between the two cohorts, there are some differences with the Control Group – especially the age spread. Between the PD students and the Control Group there are also differences in terms of the population of international students, as there is a greater percentage within the Control Group.

TABLE 2:
Descriptive Statistics

COHORT 1	PD STUDENTS #1				CONTROL GROUP #1			
ITEM	1ST YEAR		2ND YEAR		1ST YEAR		2ND YEAR	
	N	%	N	%	N	%	N	%
Number (N)	67		34		27		42	
GENDER								
Male	27	40%	12	35%	16	59%	15	36%
Female	40	60%	22	65%	11	41%	27	64%
TYPE								
Domestic	62	93%	32	94%	20	74%	15	36%
International	5	7%	2	6%	7	26%	27	64%
AGE								
Less than 20	42	63%	18	53%	14	52%	6	14%
20-30	19	28%	12	35%	9	33%	31	74%
30-40	4	6%	0	0%	4	15%	3	7%
>40	2	3%	4	12%	0	0%	2	5%
ENTRANCE SCORE	10.2		8.9		10.8		9.7	
COHORT 2	PD STUDENTS #2				CONTROL GROUP #2			
ITEM	1ST YEAR		2ND YEAR		1ST YEAR		2ND YEAR	
	N	%	N	%	N	%	N	%
Number (N)	65		28		86		24	
GENDER								
Male	27	42%	8	29%	40	47%	10	42%

Female	38	58%	20	71%	46	53%	14	58%
TYPE								
Domestic	62	95%	27	96%	50	58%	2	8%
International	3	5%	1	4%	36	42%	22	92%
AGE								
Less than 20	41	63%	15	54%	51	59%	2	8%
20-30	18	28%	10	36%	31	36%	22	92%
30-40	3	4.6%	2	7%	3	3%	0	0%
>40	3	4.6%	1	3%	1	2%	0	0%
*ENTRANCE SCORE	10.13		7.7		10		NA	

*Entrance score refers to the average OP (Overall Position) university entry score of the respondents. Some percentages do not add up to 100% due to rounding.

RESULTS AND DISCUSSION

Summary survey results for all the measures for generic skills are contained in Table 3 across the two data sets (the PD Students and the Control Group) and at two points in time (at the start of their degree and at the start of their second year) – for both Cohort 1 and Cohort 2. The data presented are averages of respondent's scores for each generic skill.

For Cohort 1, PD students appear somewhat cautious about their generic skills at the start of their degree. The lowest score of 4.12 out of seven was for written communication skills with the highest being 4.86 (for career and vocational skills). The uncertainty in regard to written skills is also not unexpected, given that many commencing students find academic writing in the tertiary environment a challenge in their first year of study.

Cohort 2 of PD students appear slightly more confident in their generic skills at the start of their degree when compared to Cohort 1. However, three of the four weakest generic skills are common amongst the two cohorts: oral communication (skill #6), written communication (skill #9) and concept and analysis (initiative) (skill #5). This is interesting, as in the prior research, these are some of the generic skills highly valued by employers.

After 12 months and three instalments of the PD Program, Cohort 1 of PD students possess greater belief in the development of their generic skills. While three of their four weakest skills are still oral communication (skill #6), written communication (skill #9) and concept and analysis (initiative) (skill #5), these have improved markedly. Indeed, all ten generic skills have improved over the 12 month period for the students in Cohort 1. For Cohort 2 of PD students, their three weakest skills are slightly different, with oral communication (skill #6), interpersonal skills (skill #1) and concept and analysis (initiative) (skill #5). Nevertheless, like Cohort 1, the students in Cohort 2 have improved in all ten generic skills, even though they started the program with more confidence.

TABLE 3:
Student generic skill development for PD Students and Control Groups

	STUDENT SKILLS	1ST COHORT				2ND COHORT			
		PD STUDENTS		CONTROL GROUP		PD STUDENTS		CONTROL GROUP	
		1ST YR	2ND YR	1ST YR	2ND YR	1ST YR	2ND YR	1ST YR	2ND YR
1.	Interpersonal	4.39	5.20	5.09	4.47	4.61	5.13	4.72	4.76
2.	Self management	4.74	5.44	5.22	4.87	4.98	5.46	4.81	5.01
3.	Learning & Adaptability	4.69	5.45	5.21	4.79	4.89	5.43	4.74	4.98
4.	Problem-solving	4.50	5.29	5.22	4.55	4.96	5.44	4.67	5.26
5.	Concept & Analysis (Initiative)	4.41	4.90	5.04	4.38	4.63	5.15	4.66	5.02
6.	Oral communication	4.21	5.06	4.77	4.19	4.36	4.97	4.56	4.69
7.	Team	4.72	5.50	4.97	4.44	4.97	5.48	4.89	4.60
8.	Information literacy	4.71	5.28	5.22	4.70	5.22	5.75	4.90	4.98
9.	Written communication	4.12	4.89	4.73	4.47	4.53	5.75	4.53	4.49
10.	Career & vocational	4.86	5.66	5.28	4.80	4.88	5.17	5.05	4.99

The change in students' generic skills for both cohorts is demonstrated in Figure 1. The largest positive growth in skills for Cohort 1 was in oral communication (skill #6), interpersonal (skill #1), problem solving (skill #4) and career and vocational (skill #10). For Cohort 2, their strongest growth was in written communication (skill #9), oral communication (skill #6), interpersonal (skill #1) and learning and adaptability (skill #3).

For the Control Group, their development over the first 12 months varies dramatically between Cohort 1 and Cohort 2. This may demonstrate, if nothing else, that the university experience without a PD Program can vary dramatically from year to year. That is, the PD Program appears to give a more consistent learning experience for those students involved. Other factors are inevitably involved which explain the variance from year to year cohorts and the Control Group, such as the university's greater funding of, and research into, the first year experience in 2009, which included implementation of new initiatives which the Control Group may have been influenced by.

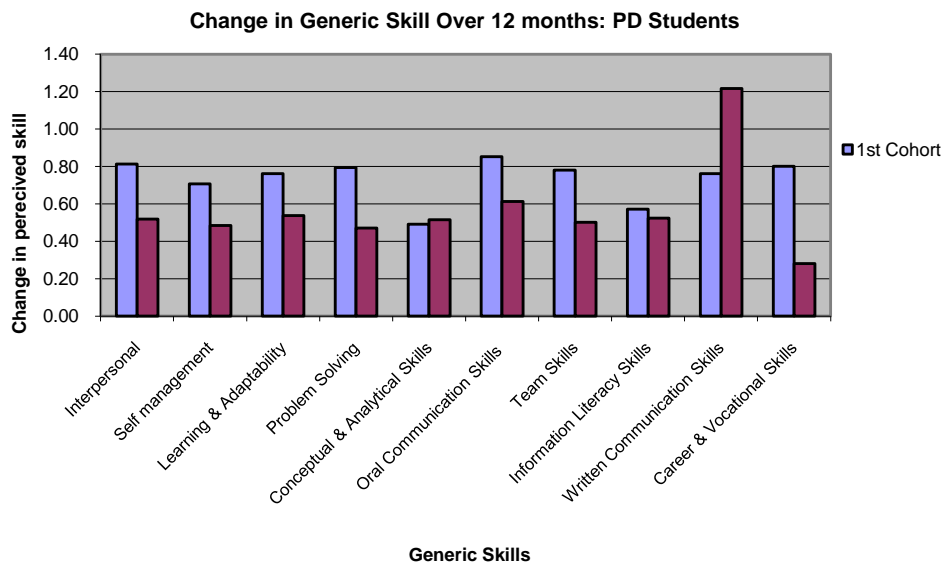**Change in Generic Skill Over 12 months: PD Students**

FIGURE 1:
Generic Skills - PD Students

For students in the first cohort of the Control Group (CG1), in all measures they have reduced in their perceived generic skill ability after 12 months of study, with the largest declines being in problem-solving (skill #4), concept and analysis (skill #5), interpersonal skills (skill #1) and oral communication (skill #6). For the second cohort of the Control Group (CG2) the negative trend is not as strong, although three of the ten measures are negative: team skills (skill #7); career and vocational (skill #10); and written communication (skill #9). Also, apart from problem-solving (skill #4) and concept and analysis (skill #5), the improvement in generic skills over a 12 month period is less than 0.25 on a 7 point scale. Indeed, for interpersonal skills (skill #1) and information literacy (skill #8), the change in students over 12 months of their university experience is negligible. Figure 2 illustrates the change in the Control Group's generic skills over the first 12 months.

While Figures 1 and 2 show variance between Cohorts 1 and 2, Figure 3 clearly demonstrates that the PD Students experience a positive change in generic skills over the 12 months compared to the Control Group in both cohorts, with the exception of problem-solving (skill #4).[6] Indeed, the difference in change is greater than 0.40 in favour of both cohorts of PD students for five of the generic skills: interpersonal (skill #1); oral communications (skill #6); team skills (skill #7); information literacy (skill #8); and written communication (skill #9).

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[6] The 'difference in change' is the 'change' experienced by the PD Students (refer Figure 1) less the 'change' experienced by the Control Group (refer Figure 2) in Cohorts 1 & 2 respectively. For example, Cohort 1 of PD Students experienced a change of 0.81 with their 'interpersonal skills' over 12 months, whereas the Control Group 1 experienced a change of -0.62. This means the 'difference' in change for the Cohort 1 with interpersonal skills is 1.43

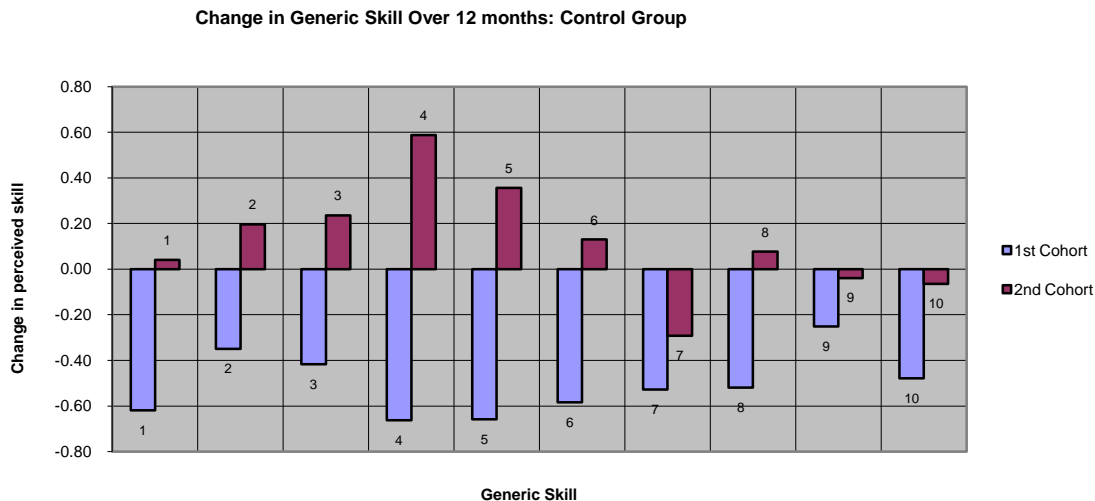**Change in Generic Skill Over 12 months: Control Group**

FIGURE 2:
Generic Skills - Control Group

In terms of perceiving the importance of generic skills to their studies, careers and desire to improve, the PD Students consistently value these skills at a greater level than the Control Group. This result provides preliminary support to existing literature that students who participate in WIL activities have a greater appreciation of the importance in acquiring generic skills during their degree (Patrick & Crebert, 2004). Table 4 contains summary results of these measures, and from an educator's point of view, it is pleasing to note the high scores for the student respondents in both groups. This suggests that there is some appreciation for the importance of developing these skills for both academic and professional purposes within these two cohorts.

Interestingly, the PD Students do not substantially change their views after a year of their degree. This, however, contrasts with the Control Group scores for the first cohort, which, at the start of their second year, are lower in all cases and lower than the PD students. For the second cohort of the Control Group, the negative trend is not as strong, with six of the ten skills being perceived as less important after 12 months of study.

It is concerning that the scores have declined, indicating a declining belief in the importance of generic skills development. Perhaps this relates to the decline in their abilities reported above (particularly with respect to the CG1), however, which leads and which lags will require further investigation. The negative trend and the strength of that negative trend may be caused by a variety of factors including the quality of the Control Group's respective first year orientation experiences in 2008 and 2009; the lack of assessment and/or teaching activities involving generic skills in the Control Group's first year courses; or that by their second year, for whatever reason, Control Group students were more concerned with completing courses of study (outcomes) rather than developing generic skills (process). From the PD Program perspective, the results provide further evidence of the positive impact that an integrated program may have on the student learning experience and student perceptions of generic skills.

Difference of Change in Generic Skill Over 12 months PD Students vs Control Group
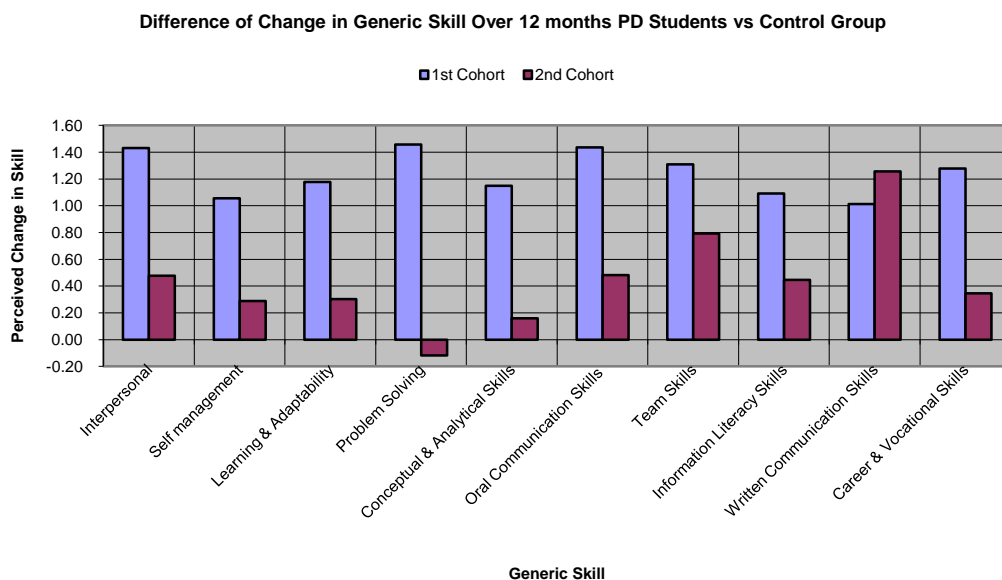

FIGURE 3:
Generic Skills - PD Students vs Control Group

Taken together, the results support a PD Program, with WIL components, in terms of the impact on students' generic skills. Of particular note are the significant gains in the generic skills capabilities of the students and the related maintained recognition of the perception of the importance of generic skills development in comparison to the students in the non-WIL degree. This, we contend, is related to the industry engagement in the PD Program, which allows the students to more clearly appreciate the link between their academic studies and their future careers, underscoring the value of a genuine WIL experience, and is in line with the received evidence and theory (Crebert et al., 2004; Kavanagh & Drennan, 2008). Our contention, which itself is a hypothesis worthy of further research in the area, is supported by the high level of industry involvement in the PD Program; qualitative and anecdotal feedback from students and industry; and student survey responses completed at the end of each PD week indicating satisfaction with industry delivered skills sessions.

TABLE 4:
Student perceptions of the importance of generic skills development

	STUDENT SKILL	1ST COHORT				2ND COHORT			
		PD STUDENTS		CONTROL GROUP		PD STUDENTS		CONTROL GROUP	
		1ST YR	2ND YR	1ST YR	2ND YR	1ST YR	2ND YR	1ST YR	2ND YR
1.	Interpersonal	6.26	6.24	5.96	5.37	6.01	6.18	5.53	5.35
2.	Self management	6.39	6.27	6.41	5.80	6.31	6.37	5.72	5.85

3.	Learning & Adaptability	6.19	6.21	6.23	5.48	6.09	6.17	5.45	5.40
4.	Problem-solving	6.23	6.36	6.44	5.55	6.21	6.19	5.51	5.68
5.	Concept & Analysis (Initiative)	5.97	5.98	6.07	5.33	5.89	6.09	5.33	5.40
6.	Oral communication	6.24	6.61	6.47	5.51	6.42	6.59	5.38	5.24
7.	Team	6.21	6.42	6.22	5.44	6.42	6.38	5.61	5.25
8.	Information literacy	6.30	6.29	6.28	5.42	6.26	6.34	5.53	5.46
9.	Written communication	6.22	6.62	6.35	5.45	6.39	6.34	5.60	5.46
10.	Career & vocational	6.26	6.45	6.19	5.44	6.41	6.37	5.61	5.61

LIMITATIONS AND FUTURE RESEARCH

The findings of this study should be viewed in light of several limitations, including the preliminary nature of the evidence, its case study nature in terms of its external validity, and the short-time frame of the analysis. The authors are currently gathering data across all three years of the respective programs and conducting interviews with graduates which will enable more definitive findings to be made regarding the influence of the PD Program on students' generic skills development. The disciplinary context of the study (financial planning and accounting) represents a further limitation. As Badcock, Pattison and Harris (2009) point out in their study of arts, science and engineering students, disciplinary differences exist in the emphasis and importance of generic skills. Future research may consider the ability or techniques used by university lecturers to teach and develop students' generic skills, as opposed to discipline knowledge.

It is also questionable to what extent first and second year university students can make meaningful judgements of their capabilities. Nevertheless, there is some support that they appear capable of doing so (Lizzio & Wilson, 2004). This could be further investigated with more objective measures.

CONCLUSION

This article highlights the impact that an integrated and continuous orientation program with WIL components can have on a cohort of students, in terms of their generic skills, and provides strong initial evidence in support of the integrated PD Program design as implemented in the Professional Degree. In a wider context, the PD Program delivers a 'not so generic' strategy to a higher education system facing the challenges of first year retention and engagement, and industry demand for employment-ready graduates. While it appears that WIL can deliver many benefits for the development of generic skills, it

remains to be seen whether the stakeholders involved have the commitment and vision to see these potentials realised.

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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, or work integrated learning (WIL), 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. In 2010, Australian Research Council (ARC), which administers the Excellence in Research (ERA) ranking system, awarded APJCE a 'B' ERA ranking (top 10-20%).

Cooperative education/WIL in the journal is taken to be work-based learning in which the time spent in the workplace forms an integrated part of an academic program of study. More specifically, cooperative education/WIL can be described as a strategy of applied learning which is a structured program, developed and supervised either by an educational institution in collaboration with an employer or industry grouping, or by an employer or industry grouping in collaboration with an educational institution. An essential feature is that relevant, productive work is conducted as an integral part of a student's regular program, and the final assessment contains a work-based component. Cooperative education/WIL programs are commonly highly structured and possess formal (academic and employer) supervision and assessment. The work is productive, in that the student undertakes meaningful work that has economic value or definable benefit to the employer. The work should have clear linkages with, or add to, the knowledge and skill base of the academic program.

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