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Where there is a WIL there is a way

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Abstract

While work integrated learning (WIL) is seen as a way to address the call for improved 'employment readiness' and generic skills of graduates, it has been stated that WIL programs need to be 'well managed and structured' and 'well integrated' (Patrick et al., 2008). To provide such structure and integration a Professional Development (PD) Program was developed to assist students who would undertake a WIL internship as part of their business degree. This paper details evidence of the impact of the PD Program for first year students compared to those undertaking a conventional orientation process. The preliminary evidence demonstrates that structure and integration of the PD Program has had positive effects in terms of generic skills, satisfaction and self-efficacy.

Introduction

Over the past twenty years, Government, industry associations and employers have expressed concern about the work-readiness of graduates, in particular their lack of 'employability', 'graduate' or 'generic' skills (Australian Education Council, 1992; AC Nielson, 2000; Australian Chamber of Commerce and Industry (ACCI) & Business Council of Australia (BCA), 2002; Precision Consultancy, 2007). The AC Nielson survey

of employer satisfaction with graduate skills identified perceived generic skill deficiencies in three areas: oral business communications; creativity and flair; and problem solving (AC Nielson, 2000). Kavanagh and Drennan's study (2008) concluded that both employers and students believe that tertiary programs in accounting are failing to sufficiently develop the non-technical and professional skills of students. This should raise significant concern for tertiary institutions in terms of the importance of teaching and learning performance measures which include graduate outcomes and measures of student experience.

Recent discussion papers have identified Work Integrated Learning (WIL) as a learning method which addresses industry demand for work-ready graduates and have encouraged its implementation in higher education (Precision Consultancy, 2007; Universities Australia, 2008; Bradley et al., 2008; Patrick et al., 2008). WIL is 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 et al., 2002). Many higher educators have incorporated WIL into the curriculum, developing internal structures to support WIL initiatives and making WIL part of the institution's strategic goals (Patrick et al.).

However, to make the most of WIL students need to acquire basic skills required at the workforce (Trigwell & Reid, 1998), because if WIL is poorly administered it can lose its impact (Abeysekera, 2006). To address these concerns the Professional Development (PD) Program, which has WIL components itself, was developed to ensure that there was integration between students' academic study and the profession that they will experience as part of their internship in the *Bachelor of Commerce (Professional) Degree* (Professional Degree).

This paper offers preliminary analysis of the first year of the PD Program relying on self-reported measures of student development. The paper is structured as follows: the next section examines the theoretical basis of the potential WIL has on student satisfaction, self-efficacy and generic skills; then the design of the PD Program as well as the research method is 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

Higher education institutions envisage that WIL will not only equip students with the necessary generic skills, but also contribute to student engagement by providing a 'rich, active and contextualised learning experience' (McLennan, 2008). Student engagement is an important factor for higher education institutions because of its relationship with student satisfaction and retention (Australian Council for Educational Research (ACER), 2009).

The survey instrument in this study assessed the impact of the PD Program on three student attributes commonly associated with WIL, namely: satisfaction; self-efficacy and generic skills. A brief discussion of these attributes follow.

Satisfaction

Student satisfaction is a priority for higher education. The Bradley Review recommended that Australia's higher education system be assessed by nine factors, one factor being its capacity to 'provide students with a stimulating and rewarding higher education experience' (Bradley et al., 2008). Two Australian studies indicate that student engagement with learning is an important determinant of student satisfaction with their higher education experience (Scott, 2005; ACER, 2008). These studies confirm other anecdotal and empirical evidence that WIL promotes student engagement and enhances student perceptions of their educational experience (Precision Consultancy, 2007; Harvey et al., 1997; Patrick et al., 2008).

Scott (2005) examined a substantial database of open ended comments made by graduates from 14 Australian universities during the period 2001-2004 about the best aspects of their university course and those aspects most needing improvement. With respect to learning methods, a key finding in Scott's report was that practice-orientated (which included many WIL methods)[i] and interactive, face-to face learning methods attracted the largest number of 'best aspect' comments. Scott suggests that it is these methods students identify as most engaging them in productive learning.

The ACER conducted an Australasian Survey of Student Engagement (ACER, 2008), completed by undergraduate students from 25 Australasian higher education institutions. Six student engagement scales (academic challenge, active learning, student and staff interactions, enriching educational experiences, supportive learning environment and WIL) and several broad outcomes were measured by the survey instrument. The outcomes relevant to student satisfaction included overall quality of the educational experience and whether the student would attend the same institution if they could start over again ('re-enrolment intentions'). WIL displayed one of the strongest positive relationships with a student's re-enrolment intentions. These results indicate not only that 'more highly engaged students have higher quality academic experiences', but that WIL experiences are valuable to the students' overall educational experience (ACER, 2008, p. 22).

Self-efficacy

Self-efficacy has been described as individuals' beliefs, thoughts, and feelings about their personal capabilities (Bandura, 1977, 1986). These beliefs can influence how individuals exercise control over their own level of functioning and, in turn their performance (Bandura, 1977, 1986). A person's self-efficacy can be a significant determinant of behaviours such as: achievement strivings, academic persistence, choice of career opportunities and career competency (Bandura, 1982). More specifically, individual self-efficacy has been positively related to individual performance and satisfaction (Bandura, 1997; Gist & Mitchell, 1992; Chowdhury et al., 2002). In terms of performance, studies have found that students with higher self-efficacy can make better use of cognitive strategies (Zimmerman et al., 1992) and can be better at solving conceptual problems (Bouffard-Bouchard et al., 1991). A person's self-efficacy is not stagnant, and importantly it can be developed through the notions of mastery experiences, modelling, social

persuasion and physiological states (Bandura, 1982; Gist, 1987; Wood & Bandura, 1989; Chowdhury et al., 2002).

WIL programmes have been used to develop students' competences (Arnold et al., 1999), and prior studies indicate substantial personal development by students who participate in such programmes (Day et al., 1982; Freudenberg et al., 2008). WIL programmes have demonstrated increases in job knowledge and skills, and importantly, improved attitudes and behaviours towards work readiness (Hughes & Moore, 1999).

Generic skills

Employers, industry associations and government authorities have expressed what they consider to be the generic skills required in higher education to develop 'work-ready graduates'. 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, 1992). There is debate about the balance and mix of generic, technical and professional skills that should be built into degree programs (Asbaugh & Johnstone, 2000; Crebert, 2002; Kavanagh & Drennan, 2008). Such debate is beyond the scope of this study. Nevertheless, there is general consensus that WIL is a learning method that can equip graduates with generic skills and should be incorporated into the existing curriculum. 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 et al., 2008). WIL can assist in transferability. Crebert et al. (2004) found that 72.6% of graduates surveyed from three tertiary schools who had completed work placements had not encountered major difficulties in applying their generic skills in the workplace.

The PD Program is designed to improve students' generic skills, to provide students with an opportunity to develop and understand their self-efficacy and engage them in such way so as to improve their satisfaction with the university experience. A brief description of the PD Program design follows.

Design of the PD Program

The Professional Degree involves students studying full time for their first year, and then converting to part time study for their second and third years, while undertaking a two-year paid internship in either an accounting or financial planning firm. The Professional Degree is delivered in a trimester mode, that is ten week trimesters with approximately 35 hours contact per course.

To ensure that students are adequately equipped for the WIL experience, represented by the internship, as well as for their academic studies, the PD Program was developed to create a meaningful link between university and the profession. The PD Program is designed for the

systematic development of students in terms of their learning, employment and generic skills. Also it provides students with industry knowledge, professional skills and exposure to partner firms. The PD Program is delivered in days prior to the start of each trimester, analogous to a continuing orientation program that all students in the Professional Degree (commencing and continuing) participate in. Accordingly, the PD Program consists of days conducted over three intervals each year (PD#1, PD#2 and PD#3). The PD Program is structured to deliver key skills and knowledge to students depending upon their progression (1st, 2nd or 3rd year) and provide opportunities for mentoring and socialising through a Pod system. The term '*Pod*' is based on the collective noun for a group of whales and symbolises the importance of a nurturing environment needed for the development of an individual. Pods consist of a group of students, industry and academics: being approximately nine students (three 1st, 2nd and 3rd year students), at least two industry members, and an academic facilitator. There are a number of formal and informal Pod activities to develop the relationship between members. A Pod, in part, can provide for a learning community for students as they progress through their studies (Tinto, 2000).

A critical element to the success of the PD Program is the involvement of industry with the design and delivery of certain sessions within the PD Program, thereby giving the PD Program WIL characteristics. A number of the activities are either facilitated by industry representatives (practitioners, recruitment/Human Resource staff, recent graduates) or professional bodies. Other sessions are conducted by university staff (academic and non-academic) or consultants. Each instalment of the PD Program contains a highlight event to showcase the University and its students, such as a networking breakfast (PD#1), speed dating interviews (PD#2) and a Student-Industry Conference (PD#3).

It is argued that the PD Program enhances graduate attributes through the integration of work and learning. A more detailed description of the PD Program and the particular activities can be obtained by contacting the authors.

Research Method

This study employs a longitudinal survey methodology to examine the impact of the PD Program on first year students (the PD Students). While there were continuing students who transferred into the Professional Degree, this paper focuses on the experience of the first year students. The instrument was administered at the start of the university year in 'orientation week' in an attempt to capture students prior to 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 of students in a similar degree that does not include the PD Program were surveyed at similar times as the primary sample. Note it is only in their second year that PD Students will begin their internship.

Survey instrument

The survey instrument developed included four sections. The first contained standard demographic questions, with remaining sections containing questions about the students' satisfaction, perceptions of self-efficacy and generic skills; each of which is discussed below.

Student satisfaction

To ascertain students' overall satisfaction, participants were asked a series of questions concerning their satisfaction with their choice of degree, university, courses, experience at the university, fellow students, lecturers, contact with industry, industry in which they will enter on graduation and the relevance of the degree to their perceived professional needs. Responses were in the form of a seven point scale from 'unacceptable' (1) to 'excellent' (7).

Self-efficacy

In formulating the survey instrument to measure students' self-efficacy the prior work which has focused on task-specific as well as generalised self-efficacy was utilised (Bosscher & Smit, 1998; Chen & Gully, 1997; Kirk & Brown, 2003; Subramaniam & Freudenberg, 2007).[ii] Consequently, a 21 item measure of self-efficacy was adopted, comprising both task specific items and generalised measures. Students rated their self-efficacy on a five point scale from 'not confident at all' (1) to 'very confident' (5), adjusted to a seven scale to allow for comparison with the other measures.

Generic skills

To determine generic capabilities, students were provided with a self assessment tool for them to evaluate their level of skill development. The inventory tool was based on the one developed by Lizzio & Wilson (2004) which identified different domains of skills (10 of the 14 were used). The tool utilised ten broad capabilities, nine of which describe 'commonly identified areas of generic capabilities' – being: 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. Additionally the domain of 'career and vocational management' was measured. Within each capability there are 15 statements to ascertain students' perception about them.[iii] Respondents self-evaluated each of the statements on a seven point scale, from 'not at all a characteristic of me' (1) to 'very characteristic of me' (7).

Descriptive statistics

A total of 178 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 35 in the second year. For the Control Group there were 27 and 49 respondents in the first and second year surveys respectively. Summary descriptive statistics for the samples are provided in Table 1. We contend that the statistics are typical of an undergraduate cohort for the institution, with the male/female split oscillating between 40 and 60%, and the age predominately in the 30 and under category. The Queensland tertiary entrance scores for the sampled students range between an 'Overall Position' of 9 and 11 (which is on a 1 to 25 scale, with 1 the highest band) which again is typical for the relevant programs. Some divergence in the groups occurs in the student type category with approximately 92 to 94% of the PD Students being domestic students, with only approximately 7% being international. For the Control Group there is a larger representation of international students: first year: 26%, and second year 74%. This is typical of the degrees involved (one being on a smaller campus); however we contend that this should not have a significant impact on our results in terms of students' perceptions of generic skills, satisfaction and self-efficacy [This is a bold statement with strong impact on the results, and so needs to be justified – the following two sentences are our justification – have changed the beginning of sentence to make this clear]. This is because the increase in second year in the Control Group is due to a significant number of pathway students that transfer into the second year of the degree. While this may have some impact on our results, we suggest that this is mitigated given that these students have completed a program that is moderated by the relevant institution and includes a specific course on generic skills (and hence their experience should mirror that of the degree proper).

[insert Table 1 here]

Results and Discussion

Summary survey results for all the twelve measures are contained in Table 2 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). At the start of the degree the PD Students appear somewhat cautious about their generic skills, self-efficacy levels and overall satisfaction with their program choice (column 2 of Table 2). The lowest score of 4.12 out of seven was for written communication skills with the highest being 4.86 (for interpersonal skills and career and vocational skills). This is perhaps not surprising as the later may reflect a self affirmation (perhaps naively) of their choice to commence the program and the interpersonal skills may reflect the views of the so-called communication generation. The uncertainty in regards to written skills is also not surprising given that many commencing students find academic writing in the tertiary environment a challenge in their first year of study. The data also reflects a reasonable degree of variation in the student's responses with standard deviations of up to 2.14, suggesting a broad range of perceptions in the commencing students.

In comparison to the PD Students, the Control Group at the start of their 'traditional' degree are more confident in their abilities, more satisfied with their choice of degree and report higher levels of self-efficacy (column 4 of Table 2). Indeed their average scores are higher in all cases and the variance in the responses is lower in most. These differences are statistically significant at the 5% level or better in seven of the 12 cases, suggesting the differences are material (column 6). The differences are strongest for self-efficacy, interpersonal skills, problem solving and concept analysis. Given the nature of the degrees that the students have selected (one a WIL, the other a traditional degree), this provides an interesting picture of the profile of the commencing students and suggests that a WIL intensive degree may result in students being more cautious, given the impending reality of these skills being put to the test with various activities involving industry representatives. The increased proportion of students in the Professional Degree who are first in their family to attend tertiary education compared to the Control Group students (70% versus 40%) may also drive this lack of confidence.

After a year of study, and involvement with three instalments of the PD Program, the PD Students report significant improvements in all the generic skills areas, with their average scores (column 3 of Table 2) rising with statistical significance (column 7). The standard deviations of the responses narrows in all cases, suggesting a consensus among students about the positive impact of the PD Program on their generic skills and overall educational experience. The strongest score improvements are in the interpersonal skills (despite the high relative initial score) and oral communication skills, both reflecting key aspects of the PD Program. We also note the significant increase in the PD Students' self-efficacy. This result is particularly important in the context of a degree which requires students to commence employment (through their internship) in their second year. Whilst students may possess technical and generic skills in their first year, a lack of self-efficacy could inhibit the execution of those skills in the workplace. Self-efficacy is a difficult area for tertiary programs to target, particularly in the first year of study, with the significant transition issues that arise, making this result even more poignant. Further to this result is the statistically significant increase in student satisfaction with their degree. This underpins the improvements in generic skills and self-efficacy, and suggests that these gains are related to the degree the students are participating in. Importantly, this also suggests that the students are engaging with the degree and the institution, which has been shown to be a key factor in first year retention and performance (Scott, 2005; ACER, 2008).

The gains of the PD Students are even more pronounced given the results of the Control Group. Column five of Table 2 shows that for the Control Group, whilst the students' satisfaction remained constant, their self-efficacy and assessment of their generic skills capabilities have declined in all cases. The declines were statistically significant in seven of the 12 measures, including in the self-efficacy measure. The standard deviations also increase in a number of cases, suggesting a greater dispersion in the views held by students and indicating a more variable experience. This suggests there may have been an element of over confidence and/or naivety in their initial responses (recorded prior to them starting their degree) that has changed over the course of the first year of study. Notwithstanding this, it also highlights the impact that an integrated and continuous orientation program with WIL components can have on a cohort of students, both in terms of their generic skills

and their self-efficacy. This is further supported by column 9, which shows that the PD Students at the start of their second year of study have statistically significantly higher scores in all but one (written communication) of the measures, a marked turnaround from their responses a year earlier. Critically, as noted above, this includes strong comparative gains in the self-efficacy and student satisfaction measures of PD students from the first to second year of their degree (column 2 and 3 of Table 2). The results are consistent with the existing literature that WIL experiences, such as the PD Program, engage students in learning, a measure which is positively related to student satisfaction (ACER, 2008).

[insert Table 2 here]

The results presented in Table 2 provide strong, albeit preliminary evidence in support of the WIL based PD Program in terms of its impact on students' generic skills, self-efficacy and overall satisfaction with their degree. Significant gains were identified in students' perception of their generic skills and satisfaction. This, we contend, is related to the industry engagement in the PD Program, which allows the students to more clearly see 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). Also of importance is the increased level of student self-efficacy, an important ingredient to academic success and the transition from the academic to the professional world (Bandura, 1982). We are not surprised by this particular result. Industry feedback and our observations are that students' self-efficacy has improved by continuing engagement with industry representatives in various settings (e.g. Pods, skills sessions and networking events) during the PD Program. Industry participation serves to clarify students' career choice, provide direction and excitement about the future, and highlight the 'light at the end of the tunnel', which for some appears too far away in their first year of study. The results are supported by the prior literature in terms of the link between self-efficacy and student performance and satisfaction (Banduara, 1997; Chowdhury et al., 2002).

Finally, the reported increase in student satisfaction in the program, while relating to critical issues such as engagement and retention, also goes directly to student perceptions of their educational experience (ACER, 2008; Harvey et al., 1997). The results should please administrators charged with the task of allocating scarce resources to effective teaching and learning activities.

Limitations and further research

The findings of this study should be viewed in light of several limitations including the preliminary nature of the evidence and the short-time frame of the analysis.

While it may be questionable to what extent first and second year university students can make meaningful judgements of their capabilities, there is some support that they appear capable of doing so (Lizzo & Wilson, 2004). However, as stressed by Lizzo & Wilson caution needs to expressed about using a normative formula in determining the presence of

capabilities, as there are 'perhaps more objective, approaches to assessing capability' (Lizzo & Wilson, 2004, p. 112) More objective measures could include behavioural skills tests, observations (Murphy, 1988) and open-ended interviews.

Furthermore, it would be insightful for future research to consider whether certain demographic issues influence students' experience. The factors that may be relevant include age, sex, intelligence, cultural, first generation university attendance and work experience (McInnis et al., 1995; Wilson et al., 2007; Lizzio & Wilson, 2004). Indeed, a more in-depth examination of the responses by students through open ended interviews would have potentially revealed such factors.

These issues also lead to further research opportunities including examining the impact of such programmes with a larger student cohort, in different disciplines and over longer timeframes. For example, future research may entail ascertaining the impact on students once they commence their internships in the second year.

Conclusion

In light of the evidence of a gap vis-à-vis the 'employment readiness' of students, the PD Program – a WIL initiative - was designed to systematically expose commencing students to industry and professional body representatives in an attempt to develop their professional skills and awareness. Further, the PD Program engages industry at the University, and this has had the result of engendering continuing links and participation of industry in the degree.

This paper describes the PD Program and reports on preliminary evidence of its impact on students in the Professional degree. Overall, we conclude that the PD Program has been successful in assisting students with their preparation for their studies and their WIL internship. Results demonstrated improved satisfaction, self-efficacy and generic skills in the student cohort, and that their skills develop at a greater rate than those of students in a traditional degree program. These results are useful to those academics and academic managers that are considering developing WIL programs and should assist in the arguments that are invariably related to the resources of curriculum innovations.

However, for the academic and administrative staff involved, it is rewarding to see that where there is a will there is a way in mounting a WIL program, such as this, with it having a direct impact on the students in the PD Program.

Acknowledgements

[i]   20 learning methods ranging from artistic productions, camps, the use of 'real world' case studies, field placements, practicum and clinical placements, to the use of key practitioners as guest lecturers or mentors, site visits, service learning and travel to other universities or overseas study exchanges.

[ii]   General self-efficacy scales have demonstrated valid associations with initiation and persistency in behaviour (Scherer et al., 1982). However, it is argued that task-specific items will better predict individual behaviour at work. For instance, Wang and Richards (1998) provide empirical support indicating that task-specific measures could outperform a general efficacy scale in the prediction of performance on cognitive tasks.

[iii]   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. The first 12 statements relate to the particular capability being divided into four sub-domains. For example, the generic domain of 'interpersonal skills' is made up of the four sub-domains of (a) assertion, (b) listening, (c) conflict and management and (d) helping and consultation skills. These sub-domains are then operationalised by three behaviourally specific items considered to represent the area of capability. This means each of the 10 domains of capability are measured by 12 statements. The remaining three statements relate to gaining an understanding of students' perception about the relevance of the skill. Students are asked to rate relevance of each capability to (a) doing well in their present course of study; (b) their future work or career; and (c) their personal interest in developing it (Lizzio and Wilson, 2004).

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Table 1: Descriptive Statistics

Item	PD Students 1st Year		2nd Year		Control Group 1st Year		2nd Year	
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 students	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%	13	38%	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	

Table 2: Student generic skill and self-efficacy development, and satisfaction with PD and non-PD Programs

1	2	3	4	5	6	7	8	9
Student Attribute	**PD Students 1st year**	**PD Students 2nd year**	**Control Group 1st year**	**Control Group 2nd year**	**T-Test (2 vs 4)**	**T-Test (2 vs 3)**	**T-Test (4 vs 5)**	**T-Test (3 vs 5)**
Overall Satisfaction	4.53	5.97	4.79	4.81	-1.339	-6.107**	0.441	5.453**
(std dev)	(2.14)	(0.92)	(1.73)	(1.51)				
Self belief and self-efficacy	4.41	5.20	5.18	4.83	-3.797**	-4.419**	2.263*	2.706**
(std dev)	(1.31)	(1.06)	(1.25)	(1.26)				
Interpersonal skills	4.86	5.20	5.09	4.47	-3.930**	-4.311**	3.510**	4.213**
(std dev)	(1.36)	(1.15)	(1.20)	(1.41)				
Self management skills	4.74	5.44	5.22	4.87	-1.353	-3.098**	2.012*	3.591**
(std dev)	(1.31)	(1.06)	(1.19)	(1.49)				
Learning and Adaptability skills	4.69	5.54	5.26	4.79	-2.087*	-4.259**	2.050*	4.196**
(std dev)	(1.34)	(1.07)	(1.21)	(1.39)				
Problem solving skills	4.50	5.29	5.22	4.55	-3.563**	-4.494**	3.855**	4.782**
(std dev)	(1.20)	(0.99)	(1.14)	(1.17)				
Concept and Analysis (Initiative)	4.41	4.90	5.04	4.38	-2.780**	-2.442*	2.923**	2.697**
(std dev)	(1.21)	(1.02)	(1.22)	(1.21)				
Oral communication skills	4.21	5.06	4.77	4.19	-2.246*	-3.351**	2.083*	3.252**
(std dev)	(1.49)	(1.37)	(1.35)	(1.30)				
Team skills	4.72	5.50	4.97	4.44	-0.844	-3.857**	1.768	4.461**
(std dev)	(1.19)	(1.01)	(1.22)	(1.31)				
Information literacy skills	4.71	5.28	5.22	4.70	-1.740	-2.551*	0.601	2.333*
(std dev)	(1.51)	(1.20)	(1.29)	(1.34)				
Written communication skills	4.12	4.89	4.73	4.47	-1.979*	-2.838**	0.518	1.199
(std dev)	(1.35)	(1.23)	(1.20)	(1.33)				
Career and vocational skills	4.86	5.66	5.28	4.80	1.494	3.428**	-1.554	3.369**
(std dev)	(1.41)	(1.25)	(1.36)	(1.27)				

This table provides summary survey data results from four surveys conducted in two time periods. Columns 2 and 4 relate to surveys conducted with commencing students at the start of their degrees in two distinct degrees. Column two refers to the PD Students who enrolled in a degree supported by the PD Program, while column 4 refers to students in a 'traditional' program. Columns 3 and 5 present survey data from students surveyed from these respective programs at the start of their second year of study as continuing students. The data presented in columns 2-5 are averages of respondent's scores across a number of measures for each attribute. The figures in brackets below these are the standard deviations of the sample of student averages. Columns 6 to 9 present summary results (*t*-statistics) of *t*-tests on the respondent averages in the noted columns. The tests are structured such that the first note column is denoted group one in an independent samples *t*-test. Hence in column 6 a statistically significant positive *t*-statistics indicates that the mean of column 2 is statistically significantly different and larger than that of column 4. In addition to the reported results, non-parametric Mann-Whitney and Kolmogorow-Smirnov tests (Corder and Foreman, 2009)are run. The results of these did not materially differ from those presented above and hence are not reported here.

'*' denotes statistical significance at the 5% level and '**' denotes significance at the 1% level [this should be represented in the correct way: The use of asterisks for the notation of the level statistical significance is standard practice in other areas of research the authors are familiar with (reference examples

can be required if required) and we note that the journal style guide does not refer to this specifically. However, if there is a preferred method please advise and we will adjust accordingly.].