

**Student Perception of the Importance and attainment of Generic and Graduate
Employability Skills in a Business Course**

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Abstract

This paper will present quantitative and qualitative data to analyse and identify the perceptions that commencing Business students have as to the importance and achievement of graduate and generic skills. There are four main stakeholders in all undergraduate University programs; graduates, employers, undergraduate students and academic staff. The debate over the merits and applicability of teaching generic/graduate employability skills in undergraduate degrees has evolved with divergent views emanating between employers and academics. This paper will present the initial findings of the analysis of generic/graduate of transition undergraduate student commencing the first of three “graduate skills” units namely PD1: Critical thinking and problem solving. The paper will present an analysis of the student’s self-perception as to the importance and attainment of a range of generic/graduate skills as well as the results of two generic skills assessment tasks. The results show that the transition Business student feels confident in their mastery of generic skills but does note that critical thinking, problem solving and real-business problem solving are three areas they need to develop.

Key Words: generic skills, graduate skills, survey research, business course

This paper looks at the formation and roll-out of three graduate skills units into the Victoria University Business courses and the student perception of the level and importance of the generic skills that are the focus of the graduate skills units. Whilst many Universities have incorporated elements of generic/graduate skills into existing degree units the adoption of a scaffolded approach of three units dedicated to graduate and generic skills is unique. The background to the formation of the graduate and generic skills units is presented as well as a preliminary analysis of the commencing student perceptions of a range of generic and graduate skills.

GENERIC SKILLS

In this paper the term generic skills will be used as an umbrella term that covers a range of skills that traditionally exist outside the discipline specific knowledge units that Universities provide in their programs. Many studies have analysed the role and importance of generic skill formation in graduates and how these skills are transferred to the workplace (Marks, McMillan, & Hillman, 2001; Kearns, 2001; Curtis & McKenzie, 2001; Clanchy & Ballard, 1995). The term generic includes a range of graduate and personal skills that students develop in their academic discourse. The meshing of the terms generic and graduate skills is clarified in an Australian study of employer and academic expectations of University instruction by the Australian College of Organisational Psychologists (1999). This study analysed 41 competencies and compared employer and academic views to these skills that can be termed as “work-ready” or “employment ready”.. The study suggested not surprisingly that employers wanted skill sets that transfer directly into the workplace such as self-reliance, self-management, effective oral communication, problem solving, logical and orderly thinking, creativity and flair in business, entrepreneurship, teamwork and leadership.

Harvey and Green (1994) concluded that the following generic skills were valued by both employers and academics:

'... willingness to learn, team work, problem solving and a range of personal attributes including commitment, energy, self-motivation, self-management, reliability, cooperation, flexibility and adaptability, analytical ability, logical argument and adaptability to summarise key issues.'

Hambur, Rowe and Luc (2002) developed a set of desirable graduate skills derived from Carnevale (1991) and adapted from Kearns (2001) these include; learning to learn, academic basics, communications, adaptability, personal development, group effectiveness and influencing skills. See below for Carnevale Generic Skills adapted from Kearns, in Hambur, Rowe & Luc. (2002; pp. 93.)

Learning to learn

1 Foundation skills: learning how to learn – how to collect, know and comprehend how to give and receive feedback, and how to learn collaboratively.

Academic basics

2 Reading skills: basic literacy, reading in order to learn, reading in order to do.
 3 Writing skills: preparing and organising information, writing, editing, revising.
 4 Computational skills: quantification, computation, measurement and estimation, quantitative comprehension, quantitative problem solving.

Communication

5 Speaking skills: nonverbal skills, vocal skills, verbal skills.
 6 Listening skills: assigning meaning to aural stimuli.

Adaptability

7 Problem-solving skills: the ability to bridge the gap between what is and what ought to be.
 8 Creativity skills: the ability to produce a novel idea, and then turn it into a practical one.

Personal development

9 Self-esteem skills: the ability to maintain a realistic and positive self-image.
 10 Motivation and goal-setting skills: the ability to translate work into an instrument for the development of self.
 11 Personal and career development skills: the ability to adapt to changing work requirements to ensure employment security and to fulfill personal potential.

Group effectiveness

12 Interpersonal skills: the ability to judge appropriate behavior, to absorb stress, to share responsibility, to deal with ambiguity.
 13 Negotiation skills: the ability to overcome disagreements by compromising and accommodating.
 14 Teamwork skills: the ability of groups to pool human resources to pursue common goals.
Influencing skills
 15 Organisational effectiveness skills: the ability to work productively in the context of explicit and implicit organisational cultures and subcultures.
 16 Leadership skills: the ability to influence others to serve the strategic purposes of an organisation or the developmental needs of an individual.

Generic/Graduate Skills Education

The question of teaching generic/graduate skills at University has been at the centre of debate in Australia about the very role of universities (Kavanagh & Drennan, 2008). A comprehensive report by ACER (2006) showed that pre-university youth self-reported high levels of achievement of generic skills, the skills that are termed graduate skills when students leave University. The growth in participation rates at University has shifted the role of the university (DEWR, 2006) from its more traditional historical role to a role that controversially encompasses vocation and international education as espoused by Star and Hammer (2008). The increasing number of students attending universities also has placed an emphasis on the range of skills that universities are expected to deliver and the need to undertake enhanced graduate skills education (Green, Star & Hammer, 2009). These skills are described in many government and industry reports including one by the Business, Industry and Higher Education Collaboration Council (BIHECC, 2007; Freudenburg et al, 2009). The BIHECC (2007) report called for critical thinking, teamwork, sustainability, ethical practice and life-long learning as expected outcomes from a university business education. This call was echoed more recently when the Business Council of Australia (BCA, 2011) again called for an improvement in the standard of graduate skills in graduating business cohort,

"Launching its higher education policy exclusively to The Australian on Monday, the Business Council of Australia's education taskforce said graduates still lacked essential attributes, especially in leadership, teamwork and communication, but universities were failing to heed the call." (BCA, 2011)

The Business Council went further and suggested that while discipline skills were good the level of graduate skills needed improving,

"I have no criticism of technical standards or the quality of graduates. It is more about a broadening of the curricula to produce people who can work on a range of issues, solve problems and work in teams," Paul Douglas, CEO of Sinclair Knights Mertz as reported in BCA (2011)

A 2009 ALTC report by Rigby (2009) presented four broad graduate skills as being important in the development of the graduates at modern Australian universities; critical thinking, teamwork, ethical practice and sustainability.

"The actual set and sub-sets of skills, values, and attributes identified as central to students' achievement by HECA, are consistently found across and within the various conceptualisations of generic skills. Although the terminology may shift from author to author, institution to institution, the content and substance of such is generally consistent and reflects contemporary concerns of a wide range of stakeholders in higher education, particularly in Australia. Of particular importance, to academic staff, industry representatives, employer's and government bodies, are critical thinking and teamwork skills, and sensitivity to sustainability and ethical practices." (Rigby, 2009, p 5)

More recently the debate over generic skills testing has involved the potential adoption of the US Collegiate Learning Assessment (CLA) test (AHELO, 2012). This is used to assess all college students in the US and was mooted to be adopted in Australia. This adoption of the CLA came from a

feasibility study from a OECD project titled AHELO (Assessment of Higher Education Outcomes) that is assessing the learning of engineering graduates (AHELO,2012). The applicability of this test has been questioned with the pro-vice chancellor of the University of Western Sydney suggesting that it was more effective to test generic skills within a discipline framework (Trounson, 2012). So if the wider University community is debating the issues of measuring learning outcomes and generic skill sets then what is happening at Victoria University?

Generic/Graduate Skills Education at Victoria University

The Faculty of Business at Victoria University undertook a comprehensive survey of stakeholders in 2007 (VU Business Review, 2008) with a view to reviewing the undergraduate Business degree. This review implemented a major change to the curriculum offerings and was rolled out from 2008. Three core graduate skills units were introduced, one in first, second and third year. These units were termed Professional Development 1, 2 &3. They replaced three discipline based business units and focused primarily on graduate skills; critical thinking, problem solving, teamwork and communications. The first of these units was titled Professional Development 1 (PD1) and the program then scaffolded into two further units. The graduate skills units (PD) were seen as a way of bringing the incoming cohort through transition and finally improving their “job readiness” as they graduated after three years. The graduate skills units also responded to the wide range of student ability that the Australian university system is experiencing as a result of the increased participation rates.

The graduate skills units are delivered in a vastly different format to all other business units at VU. The class is a three hour seminar with a facilitator not a lecturer. The learning model is based on teamwork with activity based learning delivered through learning modules in Blackboard and is modeled on the emerging concept depicted in Education 3.0 (Keats & Schmidt, 2007). Whilst the graduate skills like problem solving, critical thinking, teamwork and communications are emphasised other skill sets including academic literacy/discourse and personal awareness skills are also developed. There is no exam, and assessment is spread throughout the semester completed predominantly during semester time. Critical writing analysis and reflective writing form a major assessment component with Readiness Assurance Testing (Michaelson et al, 2004) and problem solving exercises being the other main assessment tasks. There is one PowerPoint slide show in the whole unit.

RESEARCH METHOD

There are several specialist conferences and research centers around the globe undertaking research on teaching/learning activities with a graduate or generic skills focus; however, there is little research on delivering dedicated graduate skills units in business courses. This is probably due to the unique nature of the graduate skills based units that are the focus of this paper.

The research questions of this paper are: What are student’s perceptions of their level of competency across a range of graduate skills? Further, what are student’s perceptions of the importance of a range of graduate skills? A quantitative survey approach will be used to analyse the status of graduate/generic skills in the Bachelor of Business Course. Additionally two generic skills assessment tasks and qualitative data from student’s reflective writing will be presented to help give context to the research questions.

Methodology

A review of the literature on generic and graduate skills was undertaken with a survey instrument being developed. The survey consisted of two sections, student perception of the importance of a range of graduate skills and student perception of the attainment of the same range of graduate skills

and was administered in the first week of study. The survey asked the students to rank generic skills as shown in Table 3

Four point likert scales were used with very strongly agree and very strongly disagree anchoring the scale. The survey was given to all students undertaking PD1 in the first year graduate skills unit. Out of 950 students 584 responded with 568 usable surveys, a response rate of 58%. The student's responses were used to generate means and standard deviations. Student were also assessed by completing two generic skills tasks, the first a 60 minute essay performed in situ in week 4 and the second a problem solving task in week 9. These two quantitative tasks were then analysed with a view to supplementing the student survey.

Findings

A total of 584 PD1 students completed the survey with 568 useable surveys. There were 216 males and 352 females students. 309 of the students had completed VCE in 2010. The same cohort of students that took the self-perception survey completed the two generic skills tasks. Tables 3, 4 & 5 give the mean and standard deviation for the three sets of generic/graduate skills. Table 6 gives the results from the two skills tasks completed in weeks 4 & 9.

DISCUSSION

Student Perception of Attainment of Generic, Personal and Workplace Skills

The student were resounding in saying that they possessed moderate to high levels of generic, personal and workplace skills. The generic skills of teamwork and presentation skills scored highest and this is a surprising result to the authors. Presentations skills are often the skills that most first year students feel least confidence in and there is little opportunity for teamwork in VCE studies. Perhaps teamwork in earlier years of study and teamwork situations outside of study gives students confidence to rate themselves highly in this area. The high rating for Teamwork is also surprising as many first year students do not feel confident enough to raise the issue of free riders and would prefer individual assessment.

In the personal skills list two skills rated lower than the rest. Turning theory into practice and managing time was scored lower than all other personal skill sets. The theory skill seems to be pointing to the first year student coming to grips with the high level of theory presented in university units and being unsure how this will translate into their practical careers. The authors can foresee economics students thinking how the complex economic theories being discussed in lectures are to be massaged into a career. Time management also scored low and may be a result of the immense time pressures beginning University students feel. Part time job, University studies and new University social life coupled with exciting social groups could be registering in this rating.

In the workplace skills two areas scored lowest with practical business insight being the lowest skill in all skills sets. This seems to indicate that the students are saying that they are on the first step of their business career and they lack practical knowledge. This should be viewed in the framework that a majority of student have often had several years of retail experience by the time they get to first Year University. It is an interesting finding and could indicate they see the business insight as something that they have come to University to experience.

Considering the four point likert scale used a majority of students placed themselves in the top quartile in 9 of 20 skills sets. They are saying that they have a good base in these skill sets. Further data analysing the student's self-perception after the first year of study would make for interesting study.

Student Perception of Importance of Generic, Personal and Workplace Skills

The students readily accept the importance of the skills sets used in the study, of the 20 skill sets 16 received a score of 3.5 or higher. None were scored outside the top quartile. Problem solving and verbal communication scored highly in the generic skills, managing time scored highly and solving real business problem in workplace reinforced the other highly rated Problem Solving skill.

Going further we look at the skills where the cohort reported their greatest “gap” between their self-attainment and importance of skill sets. Critical thinking, problem solving, managing time and solving real business problems showed almost a 1 likert point of difference. It could be perceived that the students in the study are signaling a major gap between these important skills sets and their self-perception of their level of achievement. Solving real business problems is the skill that shows the greatest “gap”, this could be explained through a number of factors. The VCE ex YR12 students complete largely theoretical units in year 11/12. They also often do non-business related units to gain maximum ATAR scores. For the VET cohort in first year the gap in Solving Real Business Problems could be a result of the nature of the pedagogy of VET studies, largely skills based assessment without a contextualised business content. These two areas would be worthwhile to study further.

Student achievement on Generic skills tasks

Two generic skills tasks were completed in week 4 and week 9. Whilst some point could be made as to the timing of these tasks the attainment of generic skills is a gradual accumulative process and therefore whilst the two tasks were not completed simultaneously the gap of 5 weeks can be considered negligible. The essay task was completed in week 4 and is similar to the make-an-argument question in the Collegiate Learning Assessment Tool (CLA, 2012),

The Make-an-Argument prompt presents an opinion on an issue and asks the students to address the issue from any perspective they wish, so long as they provide relevant reasons and examples to explain and support their views on topics such as: Government funding would be better spent on preventing crime than in dealing with criminals after the fact.

The problem solving task completed in week 9 asked the students to take a business problem and using problem-solving techniques find a range of solutions. An example problem scenario asked students to find solutions for the competing Indigenous and Tourism interests in a location such as Ayers Rock or the Kimberleys.

The results showed some correlation between the communication/essay and problem solving skills. The tasks were not taken from a standardized test and cannot be generalised into a student population outside the host University but they do give a benchmark of the attainment of generic skills. Students bunched into the “medium” band with a large cohort in the “low” band. The problem solving task had fewer student achieving the “medium” band and a full 28% in the “low” band. This analysis was preliminary and would benefit from a more rigorous methodology. It is however good to benchmark student achievement with tasks that demonstrate attainment of generic/graduate skills. It is only possible in this study to give the broadest analysis of the attainment of the whole cohort, further studies tracking student attainment and more complete correlations between male/female, VCE/VET and local/international students could be the subject of further analysis.

A Student Reflection

The results described above show three general findings. Firstly, the commencing students recognise that generic/graduate skills are very important. This is supported when we look at a student reflection.

'This subject has really confronted one of my biggest fears, which is public speaking. I am aware that this is a skill that I will have to come to terms with especially in my future career. This subject has given me some practice, especially in spontaneous public speaking. Another area has been organisation and group work. Organisation is an essential skill I'll need working in the events industry. Events take a lot of planning and organisation in order to execute the event successfully (Shone & Parry 2004). PD as been one big learning experience and I think it has successfully prepared me for my future career.' (Anon, 2011)

Secondly, they see themselves as generally well skilled in these areas and thirdly they say that there are several skills sets they have deficiencies in. The generic/graduate tasks showing low levels of achievement include problem solving and communications skills sets.

'I think these in-class tasks also subconsciously improved my personal problem solving skills, even know I did not directly see the changes. By working in groups I have been able to see how other people view problems, which has helped my personal problem solving skills. My group became more than just team members we became friends thought the semester.' (Anon, 2011)

The student also commented upon teamwork and its importance as a generic/employability skill.

'Teamwork has been one of the main focuses in our PD lessons. I was lucky enough to be placed in an extremely good group, as we all got along well and we only had some very minor conflicts along the way. I think our team was lucky enough to avoid any major conflict as we were able to follow Fogler & LeBlanc's (2008) 6 steps to conflict resolution, we discussed our opinions openly and then tried to work out the best responses from our answers, we were respectful to each other's idea which I believe is an important point in avoiding conflict or personally upsetting anyone. I think we were able to work so well together in our 3A and 3B assignments due to the amount of practice we had throughout the semester in all the smaller in-class group activities...' (Anon, 2011)

CONCLUSION

The Victoria University Business Faculty undertook a wide ranging review and introduced three new units that not only replaced discipline content based units but introduced a new teaching/learning pedagogy. Much of this paper reflects upon learning undertaken by the students, a major consideration is the teaching pedagogy that forms the underlying theme of the Graduate Skills units and the associated necessity for the facilitators to grasp and feel comfortable and more importantly effective within this paradigm.

Limitations and Further Research

A limitation is associated with the level of statistical analysis, further research could include more formal focus group qualitative data gathering and cross-tabulated analysis of the differing cohorts. A major limitation is the generalisability of results from one University to the whole higher education sector. Further work expanding the reach of the survey would be desirable. Another approach could be to expand the survey to provide more detailed analysis of teamwork and specific academic skills.

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Appendix

Table 1: Longitudinal Survey of Australian Youth in Year 9 (ACER, 2006).

Generic Skill	Satisfaction rating
Communication	89%
Teamwork	89%
Problem Solving	93%
Initiative/Creativity	78%
Planning	91%
Self-management	92%
Learning Skills	95%
Technology	79%

Table 2: Generic Skills surveyed in Semester1 2011 in BFP1100.

Graduate Skills	Personal Skills	Workplace Skills
Critical thinking Rating	Working Collaboratively	Plan and Organise
Team Working	Working Independently	Technical Skills
Presentation Skills	Theory into Practice	Solve Complex Problems
Writing Skills	Managing Time	Solve Real Business Problems
Verbal Communication	Ethical Practice	Practical Business Insight
Problem Solving	Show Initiative	Workplace Professional Expectations
	Multi-cultural Awareness	Workplace Standards

Table 3: Generic Skills PD Benchmarking Survey, 4 point Likert Scale. Semester 1 2011

Graduate Skills	Self-rating	SD	Importance	SD	Difference
Critical thinking Rating	2.8	.6	3.6	.5	0.8
Team Working	3.2	.7	3.6	.6	0.4
Presentation Skills	2.8	.7	3.4	.6	0.6
Writing Skills	2.9	.8	3.5	.6	0.6
Verbal Communication	3.0	.6	3.7	.6	0.7
Problem Solving	2.9	.6	3.7	.5	0.8

Table 4: Personal Skills PD Benchmarking Survey, 4 point Likert Scale. Semester 1 2011

Personal Skills	Self-rating	SD	Importance	SD	Difference
Working Collaboratively	3.2	.6	3.6	.5	0.4
Working Independently	3.3	.7	3.5	.6	0.3
Theory into Practice	2.8	.7	3.5	.7	0.6
Managing Time	2.8	.8	3.7	.5	0.9
Ethical Practice	3.1	.7	3.6	.6	0.5
Show Initiative	3.0	.7	3.5	.6	0.5
Multi-cultural Awareness	3.2	.7	3.4	.7	0.2

Table 5: Graduate Skills PD Benchmarking Survey, 4 point Likert Scale. Semester 1 2011

Graduate Skills	Self-rating	SD	Importance	SD	Difference
Plan and Organise	3.0	.7	3.7	.5	0.7
Technical Skills	2.8	.7	3.3	.7	0.5
Solve Complex Problems	2.7	.6	3.5	.6	0.8
Solve Real Business Problems	2.7	.7	3.7	.7	1.0
Practical Business Insight	2.6	.7	3.4	.7	0.8
Workplace Professional Expectations	3.0	.7	3.5	.6	0.5
Workplace Standards	3.1	.7	3.5	.6	0.4

Table 6: Test results from communications and problem solving tasks, N=1000, Semester 1 2011

Rating	<25%	25-50%	50-75%	75-100%
Essay/Communications Task % - week 4	2	28	55	9
Problem Solving Task % - week 9	2	14	68	8