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## **The Graduate Employability Indicators: capturing broader stakeholder perspectives on the achievement and importance of employability attributes**

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### **Abstract**

*With an increasing focus on academic standards, quality and graduate employability outcomes, Australian Higher Education institutions have a greater need to develop and utilise feedback mechanisms to assess and improve graduate employability outcomes. This paper reports on the development of the Graduate Employability Indicators (GEI), a suite of surveys for graduates, employers and members of the course teaching team on the importance of 14 employment capabilities for graduate workplace success and their demonstration by new graduates up to five years out. These surveys have been developed through an ALTC grant, Building course team capacity for graduate employability, a collaborative project between Curtin University, RMIT University, University of Southern Queensland and Victoria University. The paper outlines the similarities and differences between the GEI and other indicators, such as the Australian Graduate Pathways Survey (GPS), the Australasian Survey of Student Engagement (AUSSE) and the National Survey of Student Engagement (NSSE), demonstrating its potential use in national and international benchmarking activities. Summary visual data on the perspectives of graduates from one of the pilot surveys is also provided to demonstrate the type of information that can be gleaned from the surveys.*

### **1. Introduction**

A national report published in 2007, *Graduate Employability Skills*, explored key issues related to identifying, developing and assessing graduate employability (Business Industry and Higher Education Collaboration Council 2007). The report's findings, like others before it (Department of Employment Education Training and Youth Affairs 1998; Department of Education Science and Training 2002) confirmed that graduates are expected to be equipped with a broad range of skills and attributes that enhance their opportunities for employment, enable them to perform well in the workplace, and have successful careers. Definitions and models of graduate employability abound: it has been variously described as a graduate's potential to obtain employment, accompanied by a set of achievements, understandings and personal attributes (Yorke 2004) and a blend of understanding, skilful practices, efficacy beliefs and reflectiveness (Little 2006). It has further been described as the 'capability' of becoming an effective operator in the world (whether in an employment or other social setting); that is, to have the confidence to take effective and appropriate action, live and work effectively with others, and continue to learn from experiences, as individuals and with others, in a diverse and changing society

(Stephenson 1998). Put simply, it has been described as the new graduate's ability to 'hit the ground running rather than limping' (Knight and Yorke 2004). In 2002, Australia's *Employability skills for the future* identified eight employability skills which are required 'not only to gain employment, but also to progress within an enterprise so as to achieve one's potential and contribute successfully to enterprise strategic directions' (Department of Education Science and Training 2002). Employers have continued to emphasise both the importance of and need for graduates to possess the 'required mix' of these skills (Business Industry and Higher Education Collaboration Council 2007). For many reasons, including addressing community expectations around employability, many Australian universities have recently undertaken major curriculum reform with a focus on mapping and documenting course-wide assessment of graduate attribute achievement (Barrie, Hughes et al. 2008a; Barrie, Hughes et al. 2008b).

The ALTC Competitive Grant, *Building course team capacity to enhance graduate employability*, is a collaboration between Curtin University of Technology, University of Southern Queensland, RMIT University and Victoria University. This project investigates ways of building the capacity of teaching staff (course teams) to identify, model and assess graduate employability skills. It has three principal outcomes: (1) the creation of the Graduate Employability Indicators, a suite of validated surveys which gather the perceptions of graduates, employers and course teaching teams in relation to the teaching, assessment, achievement and importance of employability skills in specific courses; (2) resources for university teaching staff to enhance strengths and address gaps in their confidence to teach and assess those skills; and (3) a process for using the indicators and resources to participate in benchmarking partnerships with other universities. This paper reports on progress to date on the development of the first outcome, the Graduate Employability Indicators.

## **2. Background**

The key premise of this project is that if national priorities and community expectations around graduate employability are to be met, academic teaching staff must be properly prepared to identify, model and assess key attributes and skills in a curriculum specifically designed to ensure graduates achieve the 'required mix' of knowledge and skills. Two questions follow: what is the 'required mix', and who determines what it might be? If employability is one of the key aspirations of university education, it would seem that employers should have a major voice, as should graduates and those who have prepared them—academic staff. Currently, Australian indicators specifically around 'employability' are limited. The Australian Graduate Survey incorporates the Graduate Destination Survey (GDS) which reports graduates' uptake of full-time and part-time work or further study, their employer and salary. The Course Experience Questionnaire (CEQ) elicits feedback on the course experience: graduate satisfaction in terms of employability can only be gleaned from comments. There is no routine national collection of employer satisfaction with university graduate skills in Australia, nor are there any national measures of academic staff perceptions or capacity around graduate achievement of attributes. In 2008, the Australian Council for Education Research (ACER) investigated graduates' employment outcomes five years after completion. ACER's Graduate Pathways Survey (GPS) includes an item which investigate graduates' perceptions of the role of their course in the achievement of fourteen attributes and skills (Coates and Edwards 2009). This item is very similar to an item in the Australasian Survey of Student Engagement (AUSSE) and the National Survey of Student Engagement (NSSE). This item, with its fourteen 'skills and attributes' informs the Graduate Employability Indicators.

### ***3. Graduate Employability Indicators***

The Graduate Employability Indicators are a suite of three surveys reporting graduate, employer and teaching staff perceptions of (1) the extent of achievement and (2) importance of the fourteen ‘skills and attributes’ (subsequently referred to as capabilities). The results are used to inform curriculum review of a degree program by providing evidence of the perceptions of:

- graduates of up to five years (the extent to which their course experience contributed to their achievement of the capabilities, how important those capabilities are to professional success, and their overall work-readiness);
- employers (the level of achievement of the same capabilities by graduates of up to five years, and how important employers believe those capabilities are to early professional success, and graduates’ overall work-readiness); and
- the teaching team (the level of achievement of the capabilities by graduates of up to five years, and how important teaching staff believe those capabilities are to early professional success and graduates’ overall work-readiness). Teaching staff are also invited to register their confidence in teaching and assessing the capabilities.

Two qualitative items elicit free text comments related to the best aspects of graduates’ capabilities, and where they might need improvement. The surveys are online, and respondents are invited to participate by email. Table 1 shows the alignment between the Graduate Employability Indicators and other surveys from which the capabilities are derived.

**Table 1: Similarities and differences between the Graduate Employability Indicators and the national surveys from which they are derived**

Instrument	NSSE 2007	AUSSE 2008	GPS 2008	Graduate Employability Indicators	Graduate Employability Indicators 2009	Graduate Employability Indicators 2009
Population	Students	Students	Graduates (5 yrs only)	Graduates (up to 5 yrs)	Employers (up to 5 yrs)	Teaching team (up to 5 yrs)
Items	To what extent has your experience at this institution contributed to your knowledge, skills, and personal development in the following areas?	To what extent has your experience at this institution contributed to your knowledge, skills and personal development in the following areas?	To what extent did your bachelor degree(s) contribute to your knowledge, skills and personal development in the following areas?	To what extent did your experience during this degree contribute to your development in the following areas?	To what extent do new graduates generally demonstrate each of the following?	To what extent do new graduates generally demonstrate each of the following?
				How important do you think each of the following is to the employment success of new graduates of this degree?	How important do you think each of the following is to the employment success of new graduates of this degree?	How important do you think each of the following is to the employment success of new graduates of this degree?
						How confident are you in teaching each of the following?
						How confident are you in assessing each of the following?
Capabilities	Acquiring work-related knowledge and skills					
	Writing clearly and effectively					
	Speaking clearly and effectively					
	Thinking critically and analytically					
	Analyzing quantitative problems					
	Using computing and information technology					
	Working effectively with others					
	Learning effectively on your own					
	Understanding people of other racial and ethnic backgrounds					
	Solving complex real-world problems					
	Developing a personal code of values and ethics					
	Contributing to the welfare of your community					
	Developing general industry awareness					
	Acquiring a broad general education					
Voting in local, state, or national elections						
Understanding yourself						
Developing a deepened sense of spirituality						
Response categories	Very little; Some; Quite a bit; Very much					

#### 4. Piloting the Survey

A first pilot was conducted with graduates in 2009 to ensure the surveys functioned properly, and to validate the response categories. It involved graduates of six undergraduate courses at one university. The quantitative response categories were as follows: the extent of achievement (very little, some, quite a bit, very much and unable to judge) and the importance (not important, somewhat important and very important). In total, 336 graduates responded in the first pilot. The international reference group and advised that the response categories were too few for one item ('importance') and did not enable sufficient discrimination, and that making the response categories consistent for both items would increase comparability. Therefore, the response categories were made consistent, as shown in Table 1: very little, some, quite, very much. A second pilot was conducted later in 2009 with five undergraduate and seven postgraduate courses. In total, 210 graduates responded in the second pilot. The results from that piloted showed greater discrimination in the responses.

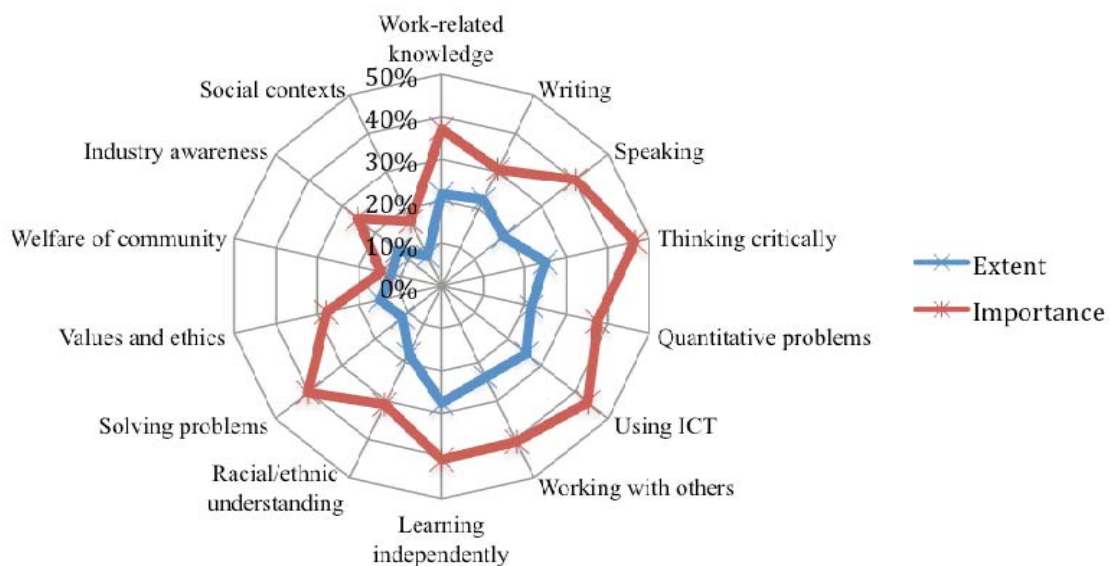


Data collection for the project has now commenced for undergraduate courses in two disciplines at the four partner universities. Preliminary data from one course are reported here: Table 2 shows the percentage agreement for each response category:

**Table 2: Percentage agreement of graduates for each response category**

Graduate responses (n=103)	To what extent did your experience during this degree contribute to your development in the following areas				How important do you think each of the following is to the employment success of new graduates of this degree?			
	Very little	Some	Quite	Very	Very little	Some	Quite	Very
<b>Capabilities</b>								
Work-related knowledge and skills	6%	31%	41%	22%	2%	18%	43%	37%
Writing clearly and effectively	6%	33%	38%	23%	1%	19%	49%	31%
Speaking clearly and effectively	10%	28%	44%	19%	0%	16%	44%	40%
Thinking critically and analytically	3%	21%	51%	25%	1%	9%	43%	47%
Analysing quantitative problems	4%	19%	56%	22%	0%	16%	47%	38%
Using computing and information technology	4%	26%	45%	26%	0%	15%	41%	44%
Working effectively with others	6%	26%	45%	24%	1%	10%	48%	41%
Learning effectively on your own	3%	19%	51%	28%	0%	15%	44%	41%
Understanding people of other racial and ethnic backgrounds	9%	29%	45%	18%	1%	22%	46%	31%
Solving complex, real-world problems	14%	37%	37%	12%	2%	18%	40%	40%
Developing a personal code of values and ethics	13%	29%	44%	15%	0%	26%	46%	28%
Contributing to the welfare of community	24%	39%	24%	12%	6%	39%	41%	15%
Developing general industry awareness	7%	37%	43%	13%	0%	26%	48%	25%
Understanding different social contexts	13%	41%	38%	8%	0%	37%	46%	17%
Overall work-readiness	2%	34%	52%	12%				

Figure 1 shows an abbreviated version of the same graduates’ perceptions. The Figure shows for each capability (abbreviated titles): (1) the percentage of graduates who considered it “very important” for early professional success, and (2) the percentage of graduates who considered their experience during the degree had contributed to their development in that capability “very much”. The scale of agreement in the Figure is to a maximum of 50 per cent.



**Figure 1: Comparison of perception of the importance of graduate capabilities (“very important” responses only) compared to the extent they were developed during the course experience (“very much” responses only)**

In the qualitative comments section, many graduates responded that the best aspects of the course were related to capability development in communication, discipline knowledge, teamwork skills, critical thinking and problem-solving. Areas identified as needing improvement were related to general industry awareness. Graduates commented that the course could be improved with more work experience, practical examples and linking the assessments to real-world problems rather than theory. Graduates also commented that employers use a wider-range of software programs and other technologies than are taught to students, stating that more instruction on some programs and the introduction of other software packages used in industry would be an improvement to the course.

## 5. Conclusion

The challenge with such surveys is in engaging potential respondents, and robust responses will be required to validate the response categories. At the time of writing, surveys for graduates, employers and teaching staff are open for data collection in two disciplines at the four partner universities. Results will be reported in due course. The surveys, and their progress in pilot, are currently being disseminated in an ALTC Fellowship, Benchmarking partnerships for graduate employability (<http://tiny.cc/boliver>). Interest in the sector is high, and there is general recognition that the Graduate Employability Indicators have the potential to provide more focused evidence upon which teaching staff can base curriculum renewal decisions.

The Graduate Employability Indicators seek to address a data gap by eliciting stakeholder views on the relative importance of fourteen capabilities commonly associated with employability and Graduate Attributes. This paper reports on the progress to date. The survey needs to be subjected to further testing and validation as the survey is tested more broadly with undergraduate and postgraduate students.

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