

LAW STUDENTS' AWARENESS OF UNIVERSITY GRADUATE ATTRIBUTES

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ABSTRACT

Despite the importance of university graduate attributes, and the emphasis that is placed on them, it is unclear whether students fully comprehend what university graduate attributes are, why they exist, and the specific graduate attribute(s) of the institution at which they are enrolled. This paper explores university graduate attributes from the perspective of students. While the paper provides an overview of the concept of university graduate attributes, the focus of the paper is on the examination of the data collected from a pilot project conducted at Curtin Law School in 2018, which explored law students' awareness of the Curtin Graduate Attributes. This paper also reflects on how academic staff can help enhance students' awareness and acquisition of university graduate attributes.

I INTRODUCTION

A significant number of universities globally have established a set of graduate attributes that students enrolled at the institution will develop and demonstrate over the course of their degree.¹ Generally, university graduate attributes relate to knowledge, skills and values, which are selected to optimise graduate employability.² Strategies for the effective formation and integration of university graduate attributes are an important issue in Australian higher education and have been the focus of a wide range of Commonwealth-funded projects.³ Multiple stakeholders must be considered in the creation of university graduate attributes (university management, academic staff, students, industry, etc.). This paper focuses on the student perspective and, more specifically, students' awareness and understanding of university graduate attributes. By gaining insight into students' awareness, perceptions and understanding, university management and academic staff can make informed choices with respect to the strategies that they use to develop, teach and assess the university graduate attributes.

The present research sought to examine the extent to which law students at Curtin Law School were aware of the Curtin Graduate Attributes. As part of the project, a sample of first-, second- and third-year students were asked to complete a questionnaire about their knowledge

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1 Carey Normand and Lorraine Anderson, 'Introduction' in Carey Normand and Lorraine Anderson (eds), *Graduate Attributes in Higher Education: Attitudes on Attributes from Across the Disciplines* (Taylor and Francis, 2017) 1, 2.

2 See generally Duncan Bentley and Joan Squelch, 'Internationalising the Australian Law Curriculum for Enhanced Global Legal Education and Practice' (Final Report, Curtin University, 2012); Duncan Bentley and Joan Squelch, 'Employer Perspectives on Essential Knowledge, Skills and Attributes for Law Graduates to Work in a Global Context' (2014) 24(1&2) *Legal Education Review* 93.

3 See, eg, the results for a search of 'graduate attributes' at the following link: Universities Australia, *Learning and Teaching Repository* (2018) <<https://ltr.edu.au/>> (accessed 22 November 2018).

and understanding of the Curtin Graduate Attributes, and university graduate attributes more broadly. Part II of the paper will introduce the concept of university graduate attributes: what they are, why they exist, why it is important that students are aware of them, some of the challenges associated with their use, and the difference between an ‘embedded’ and ‘bolt-on’ approach to teaching them.⁴ In Parts III and IV, the focus turns to the present research. Part III provides an overview of the research methodology, while Part IV outlines and discusses the results of the project (including the implications and potential for further research). Part V concludes the paper.

II AN INTRODUCTION TO UNIVERSITY GRADUATE ATTRIBUTES

Before engaging in an examination of the present research, it is necessary to introduce the concept of university graduate attributes. This part of the paper is divided into five sections. First, the concept of university graduate attributes is explained; as part of this discussion, university graduate attributes will be distinguished from related concepts, such as unit and course learning outcomes. Second, the rationale for the existence of graduate attributes will be examined. This discussion will show that graduate attributes are primarily seen as a way of promoting the employability of university graduates. Third, the link between employability and university graduate attributes will be used to show the importance of student awareness of university graduate attributes. Fourth, some of the challenges identified in the literature relating to university graduate attributes are outlined. Finally, two approaches to teaching university graduate attributes are briefly explained.

A Defining University Graduate Attributes

University graduate attributes are regularly defined in the literature.⁵ The Tertiary Education Quality and Standards Agency (‘TEQSA’) has also defined them. According to TEQSA, university graduate attributes are ‘generic learning outcomes that refer to transferable, non-discipline specific skills that a graduate may achieve through learning that have application in study, work and life contexts’.⁶ Graduate attributes can be distinguished from unit or course-based learning outcomes, which tend to be more discipline-specific;⁷ an example can help illustrate this distinction. At Curtin University, each course has specific Course Learning Outcomes. There are nine for the Bachelor of Laws course.⁸ Course Learning Outcome 2 is as follows: ‘critically and creatively analyse legal problems to articulate the issues involved and apply legal reasoning to make a considered choice between competing solutions’.⁹ Curtin University also

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- 4 Lorraine Anderson, ‘The Learning Graduate’ in Carey Normand and Lorraine Anderson (eds), *Graduate Attributes in Higher Education: Attitudes on Attributes from Across the Disciplines* (Taylor & Francis, 2017) 4, 8.
 - 5 See, eg, Simon C Barrie, ‘Understanding What We Mean by the Generic Attributes of Graduates’ (2006) 51(2) *Higher Education* 215, 217; Simon Barrie, Clair Hughes and Calvin Smith, ‘The National Graduate Attributes Project: Integration and Assessment of Graduate Attributes in Curriculum’ (Final Report, The National Graduate Attributes Project Issues, 2009) 6; Beverley Oliver, ‘Good Practice Report: Assuring Graduate Outcomes’ (Report, Australian Learning and Teaching Council, 2011) 7–9.
 - 6 Tertiary Education Quality and Standards Agency, *Glossary of Terms* (2017) Australian Government <<https://www.teqsa.gov.au/glossary-terms>> (accessed 22 November 2018).
 - 7 See Oliver, above n 5, 8.
 - 8 Curtin University, *Courses Handbook 2018: B-LAWS v.1 Bachelor of Laws* (18 May 2018) <<http://handbook.curtin.edu.au/courses/31/319279.html>> (accessed 22 November 2018).
 - 9 *Ibid.*

has nine Curtin Graduate Attributes.¹⁰ Curtin Graduate Attribute 2 requires students to: ‘Think critically, creatively and reflectively’.¹¹ Comparing the two, it is readily apparent that both relate to thinking — more specifically, critical and creative thinking. However, the Course Learning Outcome is much more discipline-specific than the equivalent Curtin Graduate Attribute; the former can arguably be said to be the implementation of the latter in the context of the Bachelor of Laws course, an exercise that is not without its challenges.¹²

B Rationales for the Existence of University Graduate Attributes

Having defined university graduate attributes, it is necessary to consider why they exist. One of the most common reasons put forward in the literature is that the achievement of such attributes can help the employability of university graduates.¹³ While the promotion of graduate employability is a significant driver, there are also regulatory reasons why universities adopt university graduate attributes. For example, pursuant to Standard 1.4.2 of the *Higher Education Standards Framework (Threshold Standards) 2015* (Cth),¹⁴ the ‘specified learning outcomes for each course of study encompass discipline-related and generic outcomes, including: ... b. generic skills and their application in the context of the field(s) of education or disciplines involved’.¹⁵ However, it is important to note that it is not only regulatory bodies like TEQSA that can influence university graduate attributes; industry bodies, such as Universities Australia, can also play a significant role.¹⁶ For example, in March 2017, Universities Australia released its *Indigenous Strategy 2017–2020*.¹⁷ A central aim of the Strategy is ‘increasing cultural capabilities of graduates’ with specific reference to ‘Aboriginal and Torres Strait Islander cultural content’.¹⁸ Responsibility for the achievement of this aim is placed directly on individual universities, and the creation of a specific graduate attribute is one suggestion put forward to achieve it.¹⁹

C The Importance of University Graduate Attributes from a Student Perspective

In Section A, it was explained that university graduate attributes are often characterised by their transferability; that is, while they are developed at university, they are intended to be applied both at university and beyond.²⁰ Section B commented on the connection between

10 Curtin Learning and Teaching, *Curtin Graduate Attributes* (2017) Curtin University <http://clt.curtin.edu.au/teaching_learning_practice/graduate_capabilities.cfm> (accessed 22 November 2018).

11 Ibid.

12 See Oliver, above n 5, 9.

13 See, eg, Beverley Oliver, ‘Assuring graduate capabilities: evidencing levels of achievement for graduate employability’ (Final Report, ALTC National Teaching Fellowship, 2015) 8; Normand and Anderson, above n 1, 1.

14 Created pursuant to *Tertiary Education Quality and Standards Agency Act 2011* (Cth) Pt 5 div 1.

15 See also Oliver, above n 13, 8–11, and, in particular, the discussion of Standards 1.4.1, 1.4.2, and 1.4.4.

16 See Universities Australia, *About Us* (25 June 2013) <<https://www.universitiesaustralia.edu.au/about-us#.W1LGU8K-mpo>> (accessed 22 November 2018).

17 Misha Schubert and Bella Counihan, *Universities Unveil Indigenous Participation Targets* (1 March 2017) Universities Australia <<https://www.universitiesaustralia.edu.au/Media-and-Events/media-releases/Universities-unveil-indigenous-participation-targets#.W1LGH8K-mpo>> (accessed 22 November 2018).

18 Universities Australia, *Indigenous Strategy 2017–2020* (2017) 30 <https://socialsciences.arts.unsw.edu.au/media/SOSSFile/FINAL_Indigenous_Strategy.pdf> (accessed 22 November 2018).

19 Ibid.

20 Tertiary Education Quality and Standards Agency, above n 6.

university graduate attributes and employability.²¹ Combined, these help to demonstrate the importance of university graduate attributes from the student perspective. Given that students need to demonstrate their competency with respect to these attributes while at university (through assessment performance),²² and ultimately possess these skills when they enter the workforce, awareness and understanding of these university graduate attributes is essential. Through awareness of the graduate attributes, students are able to construct their own learning and understanding, and optimise their assessment performance in the course and units in which they are enrolled.²³

D Challenges Associated with Implementing University Graduate Attributes

Despite their importance in the Australian higher education context, even a cursory review of the literature on university graduate attributes reveals that there are a number of challenges associated with them. Six challenges will be identified here. First, as noted by Barrie, university graduate attributes can often be somewhat vague.²⁴ By way of illustration, Oliver has identified a list of ‘common generic skills’ that include, for example, ‘written and oral communication’, ‘critical and analytical (and sometimes creative and reflective) thinking’, and ‘ethical and inclusive engagement with communities, cultures and nations’.²⁵ If university graduate attributes were to be defined at that level of generality, they would be ‘open to interpretation’ and therefore could be problematic.²⁶ Second, as evidenced by the numerous government inquiries both in Australia and internationally,²⁷ the world of work is changing and, as a result, it is difficult to know exactly what attributes future graduates will require.²⁸ For example, in the Australian legal context, the recent *Future of Law and Innovation in the Profession* report explicitly recognised the impact of technology on both the legal profession and legal education.²⁹

Third, a significant challenge identified in the Final Report of the National Graduate Attributes Project, a major Australian Learning and Teaching Council (‘ALTC’)–funded project, was that ‘the way in which a university coordinates and approaches the implementation of its graduate attributes policy is often neglected’.³⁰ Closely linked to this is the fourth challenge: finding local (within the school or faculty) and broader institutional support for attempts to more fully engage with university graduate attributes. Without those who are prepared to champion engagement with graduate attributes, and without financial support, such initiatives will likely fail.³¹ Fifth, there is the question of whether efforts to promote university graduate attributes should be driven from a top-down or bottom-up perspective.³² This dilemma is further complicated by

21 See, eg, Oliver, above n 13, 8; Normand and Anderson, above n 1, 1.

22 See, eg, Curtin Learning and Teaching, above n 10.

23 See generally John Biggs, ‘Enhancing Teaching Through Constructive Alignment’ (1996) 32 *Higher Education* 347.

24 Barrie, above n 5, 218.

25 Oliver, above n 13, 8.

26 Barrie, above n 5, 218.

27 See generally Senate Select Committee on the Future of Work and Workers, *About this inquiry* (2018) Parliament of Australia <https://www.aph.gov.au/Parliamentary_Business/Committees/Senate/Future_of_Work_and_Workers/FutureofWork> (accessed 22 November 2018).

28 Normand and Anderson, above n 1, 1.

29 The Law Society of New South Wales, ‘FLIP Report: The Future of Law and Innovation in the Profession’ (2017) 77 <<https://www.lawsociety.com.au/sites/default/files/2018-03/1272952.pdf>> (accessed 22 November 2018).

30 Barrie, Hughes, and Smith, above n 5, 2.

31 Barrie, above n 5, 218.

32 Elke Stracke and Vijay Kumar, ‘Realising Graduate Attributes in the Research Degree: The Role of Peer Support Groups’ (2014) 19(6) *Teaching in Higher Education* 616, 617.

the different conceptualisations of ‘top-down’ and ‘bottom-up’.³³ One potential solution to this challenge is to adopt a ‘whole-of-institution approach’.³⁴ Finally, there are significant questions about the extent to which students are actually aware of, and attain, the university graduate attributes, not least of which is how to measure such awareness and attainment.³⁵

E Promoting Awareness and Attainment of University Graduate Attributes

How then can a university ensure that its students graduate having attained the university graduate attributes? According to Anderson, a distinction can be drawn between an ‘embedded’ and a ‘bolt-on’ approach.³⁶ With an embedded approach, the teaching of graduate attributes is embedded into a unit through the curriculum. The principles of constructive alignment can be very helpful in this respect.³⁷ Constructive alignment is a term well explored in the literature on teaching in higher education.³⁸ It is about the achievement of ‘maximum consistency’ between the different elements of the educational experience.³⁹ In the present context, constructive alignment would indicate that a unit should be taught and assessed in such a way that students meet specific unit learning outcomes, the achievement of which will contribute to the achievement of the course learning outcomes, and ultimately result in the attainment of the university graduate attributes. Theoretically, in such a situation, students who successfully complete a unit should have made progress towards the attainment of the relevant graduate attributes; however, the reality is that the subtlety associated with the embedded approach can mean that students ‘do not “see” the graduate attributes or fully comprehend their value’.⁴⁰

The alternative bolt-on approach is somewhat different. Students have their attention specifically drawn to the relevant graduate attribute(s) through an additional component to the course.⁴¹ Bolt-on approaches have their disadvantages, however. Most notably, they can be perceived as ‘optional’ because they are not a core part of the curriculum.⁴² As will be explained later, the authors propose that the most effective approach is a combination of both. By embedding the graduate attributes into the curriculum and providing voluntary bolt-on programs to facilitate their development, the graduate attributes are at the forefront of the students’ minds, and their ability to perform the attributes is assessed.

33 See, eg, *ibid.* The authors consider a bottom-up approach to be (at least partially) peer-driven. Cf Normann Witzleb and Natalie Skead, ‘A Bottom-Up Approach to Developing LLB Course Outcomes and an Integrated Curriculum’ (2009) 43(1) *The Law Teacher* 62, 66–67, who explore top-down and bottom-up more from the perspective of whether the starting point should be the individual unit or a broader policy.

34 Beverley Oliver, ‘Teaching Fellowship: Benchmarking Partnerships for Graduate Employability’ (Final Report, LSN Teaching Development Unit, Curtin University, ALTC, 2010) 45.

35 Oliver, above n 13, 10–11.

36 Anderson, above n 4, 8.

37 See, eg, Lesley Treleaven and Ranjit Voola, ‘Integrating the Development of Graduate Attributes Through Constructive Alignment’ (2008) 30(2) *Journal of Marketing Education* 160, 161.

38 See, eg, Biggs, above n 23; Helen Larkin and Ben Richardson, ‘Creating High Challenge/High Support Academic Environments Through Constructive Alignment’ (2015) 18(2) *Teaching in Higher Education* 192.

39 Keith Trigwell and Michael Prosser, ‘Qualitative Variation in Constructive Alignment in Curriculum Design’ (2014) 67(2) *Higher Education* 141, 142.

40 Anderson, above n 4, 8.

41 *Ibid.*

42 *Ibid.*

III PROJECT METHODOLOGY

A Research Method

A survey method was adopted for the project.⁴³ The survey contained a mixture of basic quantitative and qualitative questions, which included basic demographic information about the participant (including current degree, and length of time in the degree), general questions about university graduate attributes (for example, a question that asked students to define the concept of a university graduate attribute, and one that explored the extent to which students feel that graduate attributes are important), and specific questions about the Curtin Graduate Attributes (including questions about what they are, and how academic staff can improve student awareness of them). The survey method was an appropriate match for the exploratory (pilot) nature of this project;⁴⁴ it enabled the research team to canvass many of the major issues relating to the research topic and to start identifying themes that can be explored in further research.

B Sampling

The survey was made available to students enrolled in three Bachelor of Laws units at Curtin Law School: a first-year core unit, a second-year core unit and a third-year elective unit. Unit enrolments ranged from 34 (third-year elective) to 132 (first-year core). The rationale for the selection of one unit from each year of the Bachelor of Laws degree was to allow for an examination of students' awareness of the university graduate attributes at different points throughout the degree.⁴⁵ The response rate for each unit can be found in Table 1 below. Overall (across all three units), the response rate was 61.57 per cent. It is important to note that the survey was administered in hard copy in tutorials for each unit; consequently, the response rate was impacted upon by the level of attendance in each tutorial. The project received human research ethics approval,⁴⁶ students were provided with a Participant Information Form and indicated their consent to participate in the survey instrument itself.

Table 1: Sample size and response rate

UNIT	NUMBER OF STUDENTS ENROLLED	NUMBER OF STUDENT RESPONSES	RESPONSE RATE
First-year core unit	132	83	62.88%
Second-year core unit	63	36	57.14%
Third-year elective unit	34	22	64.71%
Total	229	141	61.57%

43 For an overview of the survey method, see Wing Hong Chui, 'Quantitative Legal Research' in Mike McConville and Wing Hong Chui (eds), *Research Methods for Law* (Edinburgh University Press, 2nd ed, 2017) 48, 62.

44 Exploratory research is one type of research that a survey method can be useful for. See Lawrence W Neuman, *Social Research Methods: Qualitative and Quantitative Approaches* (Pearson, 7th ed, 2014) 317.

45 While the decision to select a unit from each year group was purposive, selection of the individual units to survey was based primarily on convenience. See generally Chui, above n 43, 58.

46 Curtin University Human Research Ethics Office approval number: HRE2018-0111.

C Data Analysis

The survey collected both quantitative and qualitative data. The quantitative data was collated into a Microsoft Excel spreadsheet (one per unit) to determine the frequency distribution (a form of descriptive statistics).⁴⁷ While such analysis is limited in the depth that it can provide, it is suitable for the current project, given the questions asked in the survey. The qualitative data was collated into a Microsoft Word document (one document per question, separated by unit), with each document then imported into NVivo (qualitative data analysis software) for analysis.⁴⁸ The data were then coded thematically,⁴⁹ consistent with qualitative data analysis principles.

IV RESEARCH PROJECT: RESULTS AND DISCUSSION

This part of the paper will provide and discuss the results of the research project. It is organised into six sections. First, how students attempted to define the concept of a university graduate attribute will be examined. Second, student perceptions of the importance of university graduate attributes will be outlined. The data show that most students have at least a basic idea of the concept of a university graduate attribute, and view them as important, often because of their link to employability. In the third section, the data showing the number of students who were able to correctly identify the number of Curtin Graduate Attributes will be considered. The data evinces a concerning disparity between the number of students who perceive graduate attributes as important, and the number who were able to accurately identify the number of Curtin Graduate Attributes. The fourth section will explore student views on whether an embedded or bolt-on approach to teaching graduate attributes is preferable. The fifth section will consider the implications of the research, while the final section will state the limitations of the project and propose directions for further research.

A Defining a University Graduate Attribute

To gain an understanding of the extent to which respondents were familiar with the concept of a university graduate attribute, the survey asked them to provide a definition. An outline of the quantitative data can be found in Table 2.

Table 2: Definition of university graduate attribute

Question: Please explain (in your view) what is meant by a university graduate attribute				
UNIT	RESPONSE			
	ATTEMPTED DEFINITION	INDICATED UNCERTAINTY BUT ATTEMPTED DEFINITION	INDICATED UNCERTAINTY AND DID NOT ATTEMPT DEFINITION	DID NOT ANSWER
First-year core unit	71	5	5	2
Second-year core unit	31	0	3	2
Third-year elective unit	19	1	1	1
Total	121	6	9	5
Percentage	85.82%	4.26%	6.38%	3.55%

47 Neuman, above n 44, 396–398.

48 See QSR International, *What is NVivo?* (2018) <<https://www.qsrinternational.com/nvivo/what-is-nvivo>> (accessed 22 November 2018).

49 Lyn Richards, *Handling Qualitative Data: A Practical Guide* (SAGE, 2nd ed, 2009) 97.

The data in Table 2 show that only five of the 141 respondents did not provide any comment in relation to the question. Nine of the respondents expressed uncertainty as to the meaning of the concept and did not attempt a definition. For example:

I am unaware of what ‘university graduate attribute’ means (FY32).

However, six respondents, while expressing uncertainty, did attempt to define what they thought a university graduate attribute was. For example:

Not entirely sure. But maybe it could be the qualities a university student who has completed a degree would possess (FY75).

Amongst the 127 respondents who provided a definition of a university graduate attribute (the 121 who simply included a definition, plus the six who expressed uncertainty but also defined it), the level of detail of the definition varied considerably. At the less detailed end were, for example:

Something you come away with following completing your degree (TY11).

Skills that a student comes out with at the end of the degree (SY27).

In contrast, others provided a more expansive definition. For example:

Attributes that are developed by students over their course at Curtin which makes them industry ready as these are attributes which professionals, firms and companies look for in their employees (FY61).

Qualities that students are exposed to during their tertiary studies that will equip them with sought after skills in future graduate employment opportunities, ie make them ‘career ready’ (TY13).

What is notable about both of these more detailed definitions is the connection to employability. Forty-six of the 127 definitions (36.2%) contained an explicit connection to employability, through the use of a keyword or phrase (‘real-world’, ‘employment’, ‘employability’, ‘workforce’, ‘job’, ‘profession’, etc).⁵⁰ Given the connection between university graduate attributes and employability in the literature,⁵¹ it is important that there is at least some awareness of the connection among those who responded to the survey.

While not strictly part of the question (and therefore not a common feature of the responses), 12 of the 127 that defined university graduate attributes made some attempt to identify the types of attributes that are relevant. The attributes identified included, for example, time management (FY10), leadership (FY35), professionalism (FY70) and critical thinking (SY28). Some attributes were identified by multiple respondents. Those most frequently identified were integrity (FY16, FY35, FY48, FY67), communication skills (FY10, FY26, FY35), honesty (FY15, FY16, FY67) and behaving ethically (FY15, FY51, FY70). Although drawn from a small sample, these responses demonstrate a degree of similarity with the list identified by Oliver, discussed earlier in the paper.⁵²

50 A number of other definitions provided reference to some future value to be gained from the possession of university graduate attributes, but were not sufficiently specific to be said to have an explicit connection to employability.

51 Oliver, above n 13, 8; Normand and Anderson, above n 1, 1.

52 Oliver, above n 13, 8.

B Students' Perspective on the Importance of University Graduate Attributes

As can be seen from Table 3, it was widely recognised among respondents that graduate attributes are important (86.52 per cent of respondents indicated that they perceived them to be important).

Table 3: Importance of university graduate attributes

Question: Do you think university graduate attributes are important?					
UNIT	RESPONSE				
	YES	NO	INDIFFERENT	DID NOT ANSWER	DID NOT ANSWER PROPERLY
First-year core unit	72	3	8	0	0
Second-year core unit	32	0	3	1	0
Third-year elective unit	18	0	3	0	1
Total	122	3	14	1	1
Percentage	86.52%	2.13%	9.93%	0.71%	0.71%

Consistent with the academic literature,⁵³ and the discussion above in relation to Table 2, the link between university graduate attributes and employability was a dominant theme. Of those who answered ‘yes’ (122), 110 provided an additional comment. Seventy-nine of the 110 (71.8%) who provided such a comment linked their response to employability.⁵⁴ Three examples, one from each year group, are provided below for illustrative purposes:

Because they define a university graduate and separate them from non-graduates. They are skills that are supposed to help advance an individual in the recruitment stages of employment (FY9).

They make the grad more employable and show a variety and depth of social and academic skills (SY13).

They make you a better employee. So that you can contribute more effectively to your work (TY12).

Others raised the potential future benefit of possessing university graduate attributes, but did not provide a sufficient link to employability to be included in the above. For example:

As it can help us further in the future beyond class (FY36).

Another interesting, albeit far less prevalent, theme in the ‘yes’ responses can be seen in relation to those who explicitly (or implicitly) commented on the importance of university graduate attributes from the university perspective.⁵⁵ One sub-theme in these responses was the importance of university graduate attributes to the reputation of the university:

It defines a University’s reputation and should hold graduates in good stead (FY23).

Keeps graduate qualities consistent and maintains university reputation amongst employers.

Gives prospective students a guide as to what skills and attributes they should expect from course (FY38).

53 Oliver, above n 13, 8; Normand and Anderson, above n 1, 1.

54 Employability was defined in the same way as for the definition question, with reference to specific keywords and phrases.

55 Employability and the university perspective were not mutually exclusive, ie a response could be coded into both if appropriate.

In contrast to those who answered ‘yes’, for those who answered ‘indifferent’, the primary reason for their response was that they did not sufficiently understand what university graduate attributes were. Fourteen respondents (9.93%) selected ‘indifferent’. Five provided no further comment, but of the nine that did, eight drew attention to their lack of understanding. For example:

They sound important but I am unaware of what they are (SY11).

Have not heard much about them (TY5).

Only three respondents (2.13%) indicated that they did not view university graduate attributes as important. Two of the three reflected on the source of a person’s attributes, commenting that they are not just shaped by university:

Most attributes come from the individual ‘character’ and can be built on. However, they are ‘hard’ to be taught if you don’t always possess initiative (FY51).

Attributes can be gained from a range of experiences (FY69).

In contrast, and similar to the majority of those who answered ‘indifferent’, the third respondent who answered ‘no’ felt that their lack of knowledge about university graduate attributes meant that they were not important (FY40).

c Students’ Awareness of the Curtin Graduate Attributes

At present, Curtin University has nine Curtin Graduate Attributes.⁵⁶ These attributes are ‘explicitly communicated to staff and students in all course and unit documentation’, such as unit outlines, and are readily accessible online on the university’s webpage.⁵⁷ Theoretically, it could be expected that students would be familiar with the Curtin Graduate Attributes, and that those most familiar would be those towards the end of their degree (because they have read through many more unit outlines). Despite 86.52 per cent of respondents indicating that university graduate attributes are important (see Table 3), only 13.5 per cent were able to correctly identify the number of Curtin Graduate Attributes. The responses submitted were varied, with 27.7 per cent of respondents not even attempting the question, likely reflective of uncertainty. Table 4 depicts the distribution of the results.

Table 4: Respondents’ awareness of the Curtin Graduate Attributes

Question: How many Curtin University Graduate Attributes are there?													
UNIT	RESPONSE											DID NOT ANSWER	DID NOT ANSWER PROPERLY
	1	2	3	4	5	6	7	8	9	10+			
First-year core unit	1	1	3	5	6	7	7	12	18	6	14	3	
Second-year core unit	0	0	0	2	2	4	3	5	0	6	13	1	
Third-year elective unit	0	0	0	0	4	2	0	1	1	2	12	0	
Total	1	1	3	7	12	13	10	18	19	14	39	4	
Percentage	0.7%	0.7%	2.1%	5.0%	8.5%	9.2%	7.1%	12.8%	13.5%	9.9%	27.7%	2.8%	

56 Curtin Learning and Teaching, above n 10.

57 Ibid.

Of particular concern is that, of those respondents enrolled in the second- and third-year units, only one was able to correctly identify the number of Curtin Graduate Attributes. It is not entirely clear why this is the case; however, some additional insight is provided by the data contained in Table 5 and Table 6.

Table 5: The connection between the Curtin Graduate Attribute(s) and law unit(s)

Question: Are you aware of which Curtin Graduate Attribute(s) the law unit(s) you are currently enrolled in are intended to promote?				
UNIT	RESPONSE			
	YES	NO	DID NOT ANSWER	DID NOT ANSWER PROPERLY
First-year core unit	18	64	1	0
Second-year core unit	2	33	1	0
Third-year elective unit	4	18	0	0
Total	24	115	2	0
Percentage	17.02%	81.56%	1.42%	0%

Table 6: The extent to which teaching staff explain the connection

Question: Do you feel that the Curtin Law School teaching staff adequately explain the connection between the unit(s) you are currently enrolled in and the Curtin Graduate Attributes that the unit(s) are intended to promote?				
UNIT	RESPONSE			
	YES	NO	DID NOT ANSWER	DID NOT ANSWER PROPERLY
First-year core unit	19	61	2	1
Second-year core unit	2	30	2	2
Third-year elective unit	2	19	1	0
Total	23	110	5	3
Percentage	16.31%	78.01%	3.55%	2.13%

Two points can be noted here. First, in relation to Table 5, only 24 (17.02%) respondents indicated that they were aware of the connection between the Curtin Graduate Attributes and the unit(s) they were studying, while 115 (81.56%) said they were not. Both the first-year and third-year units were reasonably similar, with 18 (21.69%) and 4 (18.18%) ‘yes’ answers respectively. The second-year unit, by contrast, had only two ‘yes’ answers (5.56%). Second, in relation to Table 6, 110 respondents (78.01%) felt that teaching staff did not adequately explain the connection between the Curtin Graduate Attributes and the units they taught. In contrast to Table 5, second-year and third-year units were closer, with 2 (5.56%) and 2 (9.09%) ‘yes’ answers respectively, while the first-year unit had 19 (22.89%). It is, however, important to keep in mind the small sample size of the third-year unit.

D Students' Opinion of the Best Approach to Promote Greater Awareness and Acquisition of the Curtin Graduate Attributes

As can be seen from the discussion above, it is apparent that while students appreciate the importance of university graduate attributes in a general context, their understanding of the Curtin Graduate Attributes is very limited. Further, there is a perception that academic staff have a key role in helping to make the connection(s) for students. Building upon this, the final question in the survey asked respondents to consider whether academic staff should adopt an embedded or bolt-on approach to graduate attributes (to avoid confusion, the term bolt-on was not used in the survey — ‘explicit and separate coverage’ was used instead). Table 7 sets out the results.

Table 7: Student perceptions on how academic staff can better promote awareness and acquisition of the Curtin Graduate Attributes

Question: What approach do you think should be taken by the Curtin Law School teaching staff to promote greater awareness and acquisition of the Curtin Graduate Attributes amongst students?						
UNIT	RESPONSE					
	EMBED INTO THE CURRICULUM	EXPLICIT AND SEPARATE COVERAGE (in addition to the curriculum)	EMBED AND EXPLICIT AND SEPARATE COVERAGE	UNCERTAIN	DID NOT ANSWER	DID NOT ANSWER PROPERLY
First-year core unit	24	12	28	11	7	1
Second-year core unit	10	7	12	6	0	1
Third-year elective unit	7	1	10	4	0	0
Total	41	20	50	21	7	2
Response percentage	29.08%	14.18%	35.46%	14.89%	4.26%	1.42%

The most common response, a combination of embedded and bolt-on, received support from 50 (35.46%) respondents, while an embedded-only response received considerably more support (41, 29.08%) than a bolt-on approach alone (20, 14.18%). Additional insight can be drawn from the qualitative data. Of the respondents, only 79 provided a qualitative comment for this question. It is useful to conduct a comparison of the reasons of those who preferred an embedded to a bolt-on approach. Among those who commented in favour of an embedded approach, a number of themes arose, including ensuring coverage of the university graduate attributes, the potential for wasted time (and other resources) with a separate approach, and the perception that an embedded approach would make it easier to connect the course content to the graduate attributes. An example of each theme is provided below:

So every student will cover the attributes, ie the students who usually won't read through [the] whole unit outline will encounter anyways (FY37).

Teaching the attributes separate to the curriculum might just waste time/money unnecessarily. Just go over them in class every so often to make students more aware of them (SY20).

It would probably be useful if they embedded them so then students know what skills relate to the particular parts of their learning (FY31).

Among those who indicated a preference for a bolt-on approach, ensuring coverage of the Curtin Graduate Attributes was the dominant theme. Ten of the 13 comments reflected this theme. For example:

To raise awareness towards the attributes (FY13).

(1) No one reads the curriculum. (2) I'd never heard of 'graduate attributes' before taking this survey so clearly it has been lost amongst all the information we receive (SY22).

The second response (SY22) is also interesting because it equates the unit outline with the curriculum (and, like FY37 extracted earlier, sees the unit outline as inadequate). The other responses in favour of a separate approach raised the distinction between examinable and non-examinable content (FY6), and commented on how a separate approach could work (FY64, FY70).

As to how to operationalise the teaching of the Curtin Graduate Attributes (and, more broadly, university graduate attributes), the respondents proposed a range of possibilities, including (but not limited to) explicitly stating them (and their connection to the content) in the first lecture, directing students on where to find them, using emphasis and repetition, and the development of compulsory online modules.

E Implications

Reflecting on the data, a number of points can be made. First, the majority of respondents have a basic understanding of university graduate attributes, at least to the extent that they can attempt to provide a definition of them (even if the quality of the definition was variable). Second, there is evidence of student awareness of the connection, recognised in the literature,⁵⁸ between university graduate attributes and employability. As noted earlier, a link to employability could be seen in 46 of the 127 definitions (36.2%), and in 79 of the 110 comments (71.8%) on the importance of university graduate attributes. At a broad level then, the data suggest that most students understand the concept of a university graduate attribute, and why they are important.

Third, there is a concerning lack of awareness of the Curtin Graduate Attributes among those who participated in the survey. As noted in Part II, Section C, having an awareness of the Curtin Graduate Attributes is likely to benefit students, who will be required to demonstrate these attributes both in their degree and their subsequent work. Only 19 out of 141 students (13.5%) were able to correctly identify the number of Curtin Graduate Attributes, and 18 of the 19 were enrolled in the first-year unit. This lack of familiarity is despite a standard section in each unit outline where the unit learning outcome(s) are explicitly matched to the relevant Curtin Graduate Attribute(s).⁵⁹ It also appears that many respondents were aware of this, as evidenced by the responses to the question: 'What action(s) do you think students can take to obtain a greater understanding of the Curtin Graduate Attributes?'⁶⁰ The three most common responses were: 'ask staff' (110), 'read Unit Outline' (96) and 'read the policy' (90). Given the responses to the above question, it appears that students are not reading relevant documentation in sufficient depth. Consequently, any approach to increasing awareness of university graduate attributes should involve more than their inclusion in documentation.

Turning to the final implication of the data — the question of whether an embedded or bolt-on approach to university graduate attributes is preferable — from a quantitative perspective, a combined approach gained the greatest support (50, 35.46%) with an embedded-only approach the second-most popular (41, 29.08%). The qualitative data discussed above in relation to Table 7 echo some of the themes in the literature with respect to the strengths and weaknesses

58 See, eg, Oliver, above n 13, 8; Normand and Anderson, above n 1, 1.

59 See also, Curtin Learning and Teaching, above n 10.

60 The question allowed for multiple responses.

of the embedded and bolt-on approaches; for example, the potential to connect the graduate attribute(s) to the curriculum more closely through an embedded approach,⁶¹ the ability of a bolt-on approach to raise awareness of a specific graduate attribute,⁶² and the time and resource cost associated with a bolt-on approach.⁶³ Given the student preference for a combined approach, and that each approach by itself has its limitations, a combined approach appears to be the most appropriate. Such an approach could involve the integration of university graduate attributes into the curriculum, with teaching staff explicitly making connections where appropriate (for example, in lectures, in assessment documentation, etc) and the use of the occasional bolt-on initiative to target specific graduate attributes.

F Limitations and Further Research

There are three main limitations associated with this study. First, the project was limited to students enrolled in the three units surveyed; their experience may not be reflective of those who study a law degree elsewhere, or undertake a different course of study. Second, the study was not longitudinal; a longitudinal study, which traces students' awareness of university graduate attributes over the course of their degree, could be an option for further research in the area. Finally, the survey method itself is not without its limitations.⁶⁴

As to further research: first, the present research does not consider the perspective of academic staff. An examination of the extent to which academic staff are aware of university graduate attributes, and the way(s) in which they are approached from a teaching and learning perspective could provide a valuable additional perspective. Second, the use of a longitudinal study, in which students' awareness and understanding of university graduate attributes are traced from the first year in their degree through to the end of their degree, could show the requisite development (or lack thereof), providing a way for academic staff to more appropriately target their efforts. Such research could help to answer some of the unresolved questions that arise from the present research.

V CONCLUSION

Although university graduate attributes can be perceived as a regulatory measure used to gauge student achievement, as demonstrated in Part II, they are also relevant to graduate employability.⁶⁵ Many Australian universities, including Curtin University,⁶⁶ have developed a set of graduate attributes: 'transferable, non-discipline specific skills that a graduate may achieve through learning', but which they can use outside of the university context.⁶⁷ From a teaching and learning perspective, graduate attributes can be approached from multiple perspectives; the perspectives explored in Part II consider whether the teaching of university graduate attributes should be embedded into the curriculum or taught through a bolt-on approach.⁶⁸

The present research, detailed in Parts III and IV of this paper, involved a pilot project at the Curtin Law School, which sought to investigate the extent to which law students are aware of, and understand, university graduate attributes. Despite evidence of an understanding of university graduate attributes at a conceptual level, the data show a lack of understanding

61 Anderson, above n 4, 8.

62 Ibid.

63 Ibid.

64 See, eg, the discussion of the survey method in Neuman, above n 44, 316–367.

65 See, eg, Oliver, above n 13, 8; Normand and Anderson, above n 1, 1.

66 See Curtin Learning and Teaching, above n 10.

67 Tertiary Education Quality and Standards Agency, above n 6.

68 Anderson, above n 4, 8.

of the Curtin Graduate Attributes. Respondents also indicated a lack of understanding of the connection between the Curtin Graduate Attributes and the units they were enrolled in, evincing a perception that academic staff could do more to make the connection explicit. From an educator's perspective, such results indicate a need for more to be done. By increasing students' awareness and understanding of their university graduate attributes, educators' will not only optimise students' acquisition of the graduate attributes, but also assist students to contextualise and further their own learning and understanding.

Overall, the present study offers some important insights into law students' awareness and understanding of university graduate attributes. The most notable of these findings is the apparent disconnect between the perceived importance of university graduate attributes and the understanding of specific university graduate attributes. Such findings reinforce the need for university management and academic staff to think carefully about how to utilise a combination of the embedded and bolt-on approaches to best promote student awareness and acquisition of the university graduate attributes.