

THE INTEGRATION OF LEARNING OUTCOMES AND GRADUATE ATTRIBUTES IN THE AUSTRALIAN HIGHER EDUCATION SECTOR

PART II: MEASURES FOR HIGHER EDUCATION PROVIDERS TO REDUCE LEGAL LIABILITY

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Part I of this two-part article addressed the difficulties experienced by Australian higher education providers, namely universities, with respect to the implementation of learning outcomes and graduate attributes, and the potential legal consequences institutions may face from affected stakeholders if they are unable to produce convincing evidence demonstrating the integration of the learning outcomes and graduate attributes. Part II presents measures higher education providers can implement to mitigate their potential legal liability. The measures presented in this article are specifically designed to assist higher education providers to discharge their legal obligations and produce convincing evidence demonstrating the integration of their promoted learning outcomes and graduate attributes. Given that research has suggested that effective implementation of learning outcomes and graduate attributes is largely dependent on academic staff, the measures presented in this paper are centred on motivating and building confidence in academic staff to foster the development of learning outcomes and graduate attributes through their teaching and assessment practices.

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This paper was accepted for publication on 11 November 2020. The author would like to thank and acknowledge the work of her research assistant, Meika Atkins, for her assistance in the preparation of this paper. Since the acceptance of this paper, the *Higher Education Standards Framework (Threshold Standards) 2021* (Cth) has been enacted, which subsequently repealed the *Higher Education Standards Framework (Threshold Standards) 2015* (Cth). However, no changes were made to standard 1.4 which forms the basis of this paper.

I INTRODUCTION

Part I of this two-part series explained the legal obligations of Australian higher education providers with respect to the specifications of ‘learning outcomes for each course of study’ offered at the institution and the provision of evidence that on ‘completion of a course of study, students have demonstrated the learning outcomes specified for the course of study’.¹ As discussed in Part I, despite the legal mandate requiring the coverage of learning outcomes, the *Higher Education Standards Framework (Threshold Standards) 2015* (Cth) (*‘Threshold Standards’*) is silent as to how the learning outcomes should be drafted and implemented — this is left to the discretion of the higher education provider. Although there is technically no legislative mandate requiring the coverage of graduate attributes, if an Australian university incorporates graduate attributes in their educational policy, course handbooks or marketing materials, they are legally obligated to ensure their coverage.

Although the terms ‘learning outcomes’ and ‘graduate attributes’ are used interchangeably in the higher education sector,² the two are distinct concepts. Graduate attributes usually refer to institution-wide ‘transferable, non-discipline specific skills that a graduate may achieve through learning that have application in study, work and life contexts’.³ In contrast, ‘learning outcomes’ reflect discipline specific learning objectives at either a unit, course or institutional level (depending on the context in which the term is used). In the Australian higher education sector, the discipline specific learning outcomes for each course of study are usually the implementation of the institution’s generic graduate attributes.⁴

Commonwealth-funded reports originating from within the Australian higher education sector indicate that the implementation of graduate attributes has been ‘often neglected’ and ‘elusive’.⁵ Part I of this article outlined the research highlighting the difficulties associated with the implementation of learning outcomes and graduate attributes: namely, the disconnection between the intended curriculum and the learned curriculum,⁶ and the lack of evidence of achievement

1 *Higher Education Standards Framework (Threshold Standards) 2015* (Cth) standards 1.4.4, 1.4.4 (*‘Threshold Standards’*).

2 Beverley Oliver and Trina Jorre de St Jorre, ‘Graduate Attributes for 2020 and Beyond: Recommendations for Australian Higher Education Providers’ (2018) 37(4) *Higher Education Research and Development* 821, 822.

3 ‘Glossary of Terms’, *Tertiary Education Quality and Standards Agency* (Web Page, 2021) <<https://www.teqsa.gov.au/glossary-terms>>.

4 See, eg, Leigh Smith and Christina Do, ‘Law Students’ Awareness of University Graduate Attributes’ (2018) 11 *Journal of the Australasian Law Teachers Association* 68, 70.

5 Simon Barrie, Clair Hughes and Calvin Smith, *The National Graduate Attributes Project: Integration and Assessment of Graduate Attributes in Curriculum* (Final Report, 2009) 20, 41.

6 Beverley Oliver, *Teaching Fellowship: Benchmarking Partnerships for Graduate Employability* (Final Report, December 2010) 18 (*‘Teaching Fellowship’*), citing Andrew C Porter, ‘Curriculum Assessment’ in Judith L Green, Gregory Camilli and Patricia B Elmore (eds), *Handbook of Complementary Methods in Education Research* (Lawrence Erlbaum Associates, 3rd ed, 2006) 141.

of learning outcomes and graduate attributes.⁷ Part I also outlined the potential legal consequences that Australian universities may face if they are unable to adequately demonstrate implementation of learning outcomes and graduate attributes into courses of study offered by the institution. It was concluded that whilst there appears to be no imminent legal threat to universities, as the sector increasingly moves towards an evidence-based culture of accountability,⁸ institutions can expect greater scrutiny from their stakeholders and the Tertiary Education Quality and Standards Agency ('TEQSA'). As a consequence, universities ought to be prioritising the assurance of well-evidenced integration of learning outcomes and graduate attributes.

Part II offers measures that universities can adopt to address the difficulties associated with the implementation of learning outcomes and graduate attributes reported, and in turn, ensure the discharge of any corresponding legal obligations. The measures presented are centred on empowering academic staff with respect to teaching and assessing learning outcomes and graduate attributes.

This paper begins by highlighting the literature and rationale which suggests that academic staff are a key component to the successful implementation of learning outcomes and graduate attributes, and discusses why, to date, academic staff have not been well-utilised in this respect. Next, measures are identified which will assist universities to align their intended and learned curricula, and to produce evidence demonstrating student attainment of their promoted learning outcomes and graduate attributes. These measures were designed with the intention of reducing the potential legal liability facing universities as analysed in Part I.

Despite the reality that '[g]raduate attributes are now recognised globally as a critical outcome of modern university education',⁹ Australian universities still need

7 Barrie, Hughes and Smith (n 5) 6.

8 Particularly, this will be the case with the recent announcement of the Morrison Government's introduction of performance-based funding through the Commonwealth Grant Scheme: see Dan Tehan, Department of Education, Skills and Employment (Cth), 'The Future of Australian Universities Focuses on Achievement' (Media Release, 2 October 2019) <<https://ministers.education.gov.au/tehan/future-australian-universities-focuses-achievement>>, archived at <<https://web.archive.org/web/20200308123205/https://ministers.education.gov.au/tehan/future-australian-universities-focuses-achievement>>. Furthermore, legal commentators have suggested that there is an increased perception that students are consumers of educational services — this attitudinal shift is likely to lead to an increase in student litigation for perceived inadequacies with respect to educational services rendered by higher education providers: see, eg, Francine Rochford, 'The Relationship between the Student and the University' (1998) 3(1) *Australia and New Zealand Journal of Law and Education* 28; Francine Rochford, 'Suing the Alma Mater: What Loss Has Been Suffered?' (2001) 13(4) *Education and the Law* 319; Patty Kamvounias and Sally Varnham, 'Getting What They Paid for: Consumer Rights of Students in Higher Education' (2006) 15(2) *Griffith Law Review* 306; Sam Middlemiss, 'Legal Liability of Universities for Students' (2000) 12(2) *Education and the Law* 69; Stephen Coronos, 'Consumer Guarantees and the Supply of Educational Services by Higher Education Providers' (2012) 35(1) *University of New South Wales Law Journal* 1; Lisa Goldacre, 'The Contract for the Supply of Educational Services and Unfair Contract Terms: Advancing Students' Rights as Consumers' (2013) 37(1) *University of Western Australia Law Review* 176.

9 Barbara de la Harpe et al, *The Bfactor Project: Understanding Academic Staff Beliefs about Graduate Attributes* (Final Report, 2009) 1 ('*The Bfactor Project*').

to do more in this space to ensure adequate implementation of, and production of evidence demonstrating, student attainment of their promoted learning outcomes and graduate attributes. A failure to take measures to address these shortcomings could result in the pursuit of legal action by impacted stakeholders. To avoid potential legal disputes, investigations and negative publicity, universities need to objectively assess if they are discharging their obligations with respect to their promoted learning outcomes and graduate attributes. If shortcomings are identified, universities need to suitably prioritise and resource their learning and teaching portfolio to ensure comprehensive coverage of their learning outcomes and graduate attributes across all courses of study offered.

II THE KEY TO SUCCESSFUL IMPLEMENTATION OF LEARNING OUTCOMES AND GRADUATE ATTRIBUTES: ACADEMIC STAFF

Traditionally, the role of academic staff within the higher education sector was constituted of 40% teaching, 40% research and scholarship, and 20% administration and service to the institution.¹⁰ However, more recently, there has been an increase in academic staff taking on more specialist appointments,¹¹ such as ‘research-focused’¹² or ‘teaching-focused’¹³ academic roles. Given the focus of this paper is on coverage of learning outcomes and graduate attributes in higher education courses of study, the use of the term ‘academic staff’ refers to academic roles that have a component of teaching, research supervision or course design — regardless of the academic’s workload teaching percentage allocation.

The *Threshold Standards* specify that higher education academic staff are required to provide ‘the level and extent of academic oversight and teaching capacity needed to *lead students in intellectual inquiry* suited to the nature and level of *expected learning outcomes*’.¹⁴ To ensure academic staff are equipped to discharge their roles, the *Threshold Standards* specify that staff appointed to academic positions should have: contemporary knowledge of their discipline (informed by research, scholarship or advances in practice); relevant teaching, learning and

10 Aidan Ricciardo and Christina Do, ‘The Rise of Teaching Specialist Roles in the Legal Academy: Implications and Possibilities’ (2019) 12 *Journal of the Australasian Law Academics Association* 96, 97. See also Abel Zvamayida Nyamappene, ‘Teaching-Only Academics in a Research Intensive University: From an Undesirable to a Desirable Academic Identity’ (EdD Thesis, University of Exeter, March 2018) 13–14, citing Loraine Blaxter, Christina Hughes and Malcolm Tight, ‘Writing on Academic Careers’ (1998) 23(3) *Studies in Higher Education* 281.

11 See, eg, Andrew Norton and Ittima Cherastidtham, Grattan Institute, *Mapping Australian Higher Education 2018* (Report No 11, September 2018) 35–9.

12 For example, in addition to the traditional ‘Teaching and Research Academic’ role, Curtin University has created a research specialist role, ‘Research Academic’: see *Curtin University Academic, Professional and General Staff Agreement 2017–2021* [2018] FWCA 3472, cl 21.4.

13 For example, in addition to the traditional ‘Teaching and Research Academic’ role, Curtin University has created two teaching specialist roles, ‘Teaching Academic’ and ‘Teaching Academic (Clinical/Professional)’: *ibid* cl 21.3.

14 *Threshold Standards* (n 1) standard 3.2.2 (emphasis added).

assessment skills; and at least one qualification level higher than the course of study over which they have academic oversight (except academic staff with doctoral or equivalent research experience supervising doctoral degrees).¹⁵

A number of reports have indicated that the key to effective implementation of learning outcomes and graduate attributes is academic staff.¹⁶ For example, Oliver suggests that '[t]he empowerment of academic teaching staff is vital [to the successful implementation of learning outcomes and graduate attributes] ... as they are the principal source of curriculum development'.¹⁷ That is, academic staff are largely responsible for development, implementation and review of course and unit curriculum in which the course learning outcomes and graduate attributes are taught.

The Bfactor Project report, generated as a result of an Australian Learning and Teaching Council-funded grant, found that a majority of the academic staff surveyed 'believe[d] that the most effective method for developing graduate attributes was by integrating them in the curriculum and being taught by the discipline teacher and a specialist with skill in the relevant attribute'.¹⁸ It appears that a majority of Australian universities have adopted a curriculum integration approach with respect to their coverage of their promoted learning outcomes and graduate attributes. This approach appears to have been adopted over other potential methods, such as the 'bolt-on approach'.¹⁹ Commonly the curriculum, into which the learning outcomes and graduate attributes are often embedded, is taught by academic staff with expertise in the relevant subject matter — specialists with skill in the relevant attribute are rarely involved. As a consequence, in such an approach, academic staff are 'the principal source of curriculum development', hence why the empowerment of academic staff is of vital importance for the successful integration and coverage of learning outcomes and graduate attributes.²⁰ The majority approach dictates that the successful coverage of learning outcomes and graduate attributes 'is dependent upon academic staff viewing their role in fostering such skills and dispositions positively and delivering learning activities that are effective in the delivery of these attributes'.²¹

15 Ibid standard 3.2.3.

16 See generally Barrie, Hughes and Smith (n 5); Oliver, *Teaching Fellowship* (n 6); Alex Radloff et al, 'Assessing Graduate Attributes: Engaging Academic Staff and Their Students' (Conference Paper, ATN Assessment Conference, 20–21 November 2008).

17 Oliver, *Teaching Fellowship* (n 6) 18, citing Graduate Careers Australia, *University and Beyond 2007: A Snapshot of Things to Come* (Report, 2008).

18 de la Harpe et al (n 9) iii.

19 Lorraine Anderson, 'The Learning Graduate' in Carey Normand and Lorraine Anderson (eds), *Graduate Attributes in Higher Education: Attitudes on Attributes from across the Disciplines* (Routledge, 2017) 4, 8.

20 Oliver, *Teaching Fellowship* (n 6) 18, citing Graduate Careers Australia (n 17).

21 Jennifer Hill, Helen Walkington and Derek France, 'Graduate Attributes: Implications for Higher Education Practice and Policy' (2016) 40(2) *Journal of Geography in Higher Education* 155, 156.

Given the vital role academic staff play in the development and delivery of a course of study curriculum, it is no real surprise that academic staff are a central component to ensuring the successful implementation and coverage of an institution's promoted learning outcomes and graduate attributes. It therefore stands to reason that to enhance a university's implementation of their learning outcomes and graduate attributes, and thereby reduce their legal liability, institutions must turn their attention to measures that motivate academic staff to better engage with the institution's promoted learning outcomes and graduate attributes.

A Why Have Academic Staff Not Been More Involved?

Projects exploring academic staff perceptions of learning outcomes and graduate attributes have generally indicated that staff perceive learning outcomes and graduate attributes as important.²² Despite this perceived importance, a number of government-commissioned reports exploring learning outcomes and graduate attributes have found that 'there is, to some degree, a lack of "buy in" by academic teaching staff in Australian universities'.²³ A number of these projects have sought to uncover the reasons why academic staff have not engaged fully with the implementation of learning outcomes and graduate attributes at their respective institutions. Whilst there is no reason consistently reported, the reports have offered varied insights as to why academic staff have been generally disengaged with the process. The various reasons presented are not contradictory, so it is likely that there are a number of factors that may cause academic staff to disengage with processes involving learning outcomes and graduate attributes.

Barrie, Hughes and Smith suggest that there is a tendency for many Australian universities to engage with learning outcomes and graduate attributes as a 'bureaucratic necessity rather than an intellectual or scholarly endeavour'.²⁴ As a result, these institutions tend to rely on curriculum mapping processes as a means of quality assurance to discharge their legislative obligations.²⁵ This culture or perception of 'bureaucratic necessity' is problematic, as academic staff who are required to complete the curriculum mapping exercises are more likely to adopt a 'tick and flick' approach,²⁶ instead of meaningfully engaging with curriculum development, including the implementation and review of learning outcomes and graduate attributes. In this scenario academic staff are likely to perceive their role

22 See, eg, de la Harpe et al (n 9) 30.

23 Oliver, *Teaching Fellowship* (n 6) 14.

24 Barrie, Hughes and Smith (n 5) 6.

25 Ibid 14.

26 Oliver, *Teaching Fellowship* (n 6) 18, quoted in Romy Lawson et al, *Hunters and Gatherers: Strategies for Curriculum Mapping and Data Collection for Assuring Learning* (Final Report, 2013) 32.

in the process as purely administrative, and as a result, will likely only engage at a superficial level.²⁷

Barrie, Hughes and Smith also suggest that for ‘many [academic] staff the idea that graduate attributes should be a focus of their teaching is not one to which they subscribe’ because the staff’s understanding of the nature of the learning outcomes and graduate attributes are not necessarily consistent with their institution.²⁸ In particular, academic staff often have different understandings of how the learning outcomes and graduate attributes fit into the broader scheme of university education, and the learning and teaching approaches that might best facilitate the implementation of the learning outcomes and graduate attributes.²⁹

In a project conducted by Oliver, responses were solicited from academic staff via face-to-face interviews and email ‘to discover which institutional tools and processes for mapping, assessing and evaluating graduate attributes were already implemented or in development’.³⁰ The results of the project indicated that participants were not always aware of the tools that were made available to assist academic staff to facilitate student development of learning outcomes and graduate attributes.³¹ Despite the extensive funding a number of Australian universities have applied to the development of such resources and tools, it appears that the institutions’ methods of disseminating the tools to academic staff on the front line have fallen short. It is evident that more needs to be done by institutional management to better engage with, and inform, course leaders and academic staff of the availability and utility of these resources.

Although it may seem trite, de la Harpe and David, drawing on the data collected from the Bfactor Project,³² found that the most significant predictor of academic staff teaching and assessing graduate attributes was their ‘willingness and

27 Oliver, *Teaching Fellowship* (n 6) 18, citing Jennifer Sumsion and Joy Goodfellow, ‘Identifying Generic Skills through Curriculum Mapping: A Critical Evaluation’ (2004) 23(3) *Higher Education Research and Development* 329.

28 Barrie, Hughes and Smith (n 5) 7, citing Simon C Barrie, ‘A Research-Based Approach to Generic Graduate Attributes Policy’ (2004) 23(3) *Higher Education Research and Development* 261 (‘A Research-Based Approach’) and Simon C Barrie, ‘A Conceptual Framework for the Teaching and Learning of Generic Graduate Attributes’ (2007) 32(4) *Studies in Higher Education* 439 (‘A Conceptual Framework’).

29 Barrie, Hughes and Smith (n 5) 7, citing Barrie, ‘A Research-Based Approach’ (n 28) and Barrie, ‘A Conceptual Framework’ (n 28).

30 Oliver, *Teaching Fellowship* (n 6) 9.

31 Ibid. Oliver solicited responses from academic staff in the higher education sector for the purpose of carrying out an initial scan of how higher education providers within the sector were addressing graduate attributes more broadly. Participant involvement in the face-to-face interviews and email correspondence was voluntary. Thirty-four useable responses were obtained.

32 de la Harpe et al (n 9). One thousand and sixty-four academic staff from 16 Australian universities completed an online academic staff belief survey about graduate attributes: at i.

confidence to teach and assess' graduate attributes.³³ That is, 'the more willing and confident academic staff were, the more likely they were to report emphasising graduate attributes in their teaching and assessment practices'.³⁴ Perhaps more significantly, the project highlighted a number of demographic factors that were likely influential on academic staffs' willingness and confidence to teach and assess graduate attributes, namely 'gender, industry experience and teaching qualifications'.³⁵

III MEASURES TO REDUCE HIGHER EDUCATION PROVIDERS' LEGAL LIABILITY WITH RESPECT TO LEARNING OUTCOMES AND GRADUATE ATTRIBUTES

Despite the funding and attempts within the Australian higher education sector to foster the development of learning outcomes and graduate attributes, Australian universities continue to struggle to produce convincing evidence demonstrating that the institutions have comprehensively and systematically developed the learning outcomes and graduate attributes promoted in their educational policy.³⁶ As discussed in Part I, the difficulties that are generally acknowledged with respect to implementation of learning outcomes and graduate attributes within the higher education sector could potentially give rise to legal consequences, particularly suits by their affected stakeholders.

From a risk management perspective, it would be prudent for Australian universities to implement measures to demonstrate that all practical attempts have been taken by the institution to foster the development of the learning outcomes and graduate attributes that they promote in their educational policies. By doing so, institutions are demonstrating that they are exercising reasonable care in

33 Barbara de la Harpe and Christina David, 'Major Influences on the Teaching and Assessment of Graduate Attributes' (2012) 31(4) *Higher Education Research and Development* 493, 494, 498.

34 *Ibid* 498.

35 *Ibid* 501. The results of the project indicated that academic staff who were female, had years of industry experience, or had teaching qualifications were generally more likely to indicate that they emphasised graduate attributes in the curriculum they were covering.

36 See, eg, Simon C Barrie, 'Understanding What We Mean by the Generic Attributes of Graduates' (2006) 51(2) *Higher Education* 215, 218; Wendy Green, Sarah Hammer and Cassandra Star, 'Facing Up to the Challenge: Why Is It So Hard to Develop Graduate Attributes?' (2009) 28(1) *Higher Education Research and Development* 17, 18, citing Simon Barrie, 'Rethinking Generic Graduate Attributes' (2005) 27(1) *Higher Education Research and Development Society of Australasia News* 1, 3, Barrie, 'Understanding What We Mean by the Generic Attributes of Graduates' (n 36) 218 and Paul Hager, Susan Holland and David Beckett, Business/Higher Education Round Table, *Enhancing the Learning and Employability of Graduates: The Role of Generic Skills* (Position Paper No 9, July 2002); David Spencer, Matthew Riddle and Bernadette Knewstubb, 'Curriculum Mapping to Embed Graduate Capabilities' (2012) 31(2) *Higher Education Research and Development* 217, 218, quoting Susan M Jones et al, 'Designing and Mapping a Generic Attributes Curriculum for Science Undergraduate Students: A Faculty-Wide Collaborative Project' (Conference Paper, Science Teaching and Learning Research including Threshold Concepts Symposium, 28–29 September 2007) 40; Barrie, Hughes and Smith (n 5) 6; de la Harpe and David (n 33) 493.

discharging their legal obligations to stakeholders. Universities may be unwittingly exposing themselves to legal risk by relying on existing proxy measures, such as self-reporting,³⁷ to discharge their legal obligations with respect to learning outcomes and graduate attributes. This is especially so in circumstances where there is doubt as to whether these measures actually demonstrate effective coverage.³⁸ While it appears that universities are under no imminent legal threat, given that the higher education sector is increasingly moving towards an evidence-based culture of accountability,³⁹ and given the perception of an intensifying ‘consumer culture’ within the sector,⁴⁰ it would be prudent for universities to invest resources in order to ensure adequate coverage of their learning outcomes and graduate attributes.

To assist universities with respect to the implementation of their promoted learning outcomes and graduate attributes, the measures presented in this paper demonstrate attempts by an institution to systematically integrate learning outcomes and graduate attributes policy throughout all levels of management. The measures presented are intended to build on existing methods and practices that a majority of Australian universities are currently relying on to foster the development of learning outcomes and graduate attributes.⁴¹ Furthermore, these measures were designed to create tangible evidence that the university took all reasonable care and measures to facilitate the teaching and assessment of learning outcomes and graduate attributes across all courses of study offered at the institution.

The measures presented in this paper are intended to facilitate the application of a top-down policy in a higher education institutional environment.⁴² Collectively,

37 Beverley Oliver, *Assuring Graduate Outcomes* (Good Practice Report, 2011) 12–13.

38 Although the literature suggests that it would be difficult to determine an ‘appropriate standard of care’ in a higher education negligence context, due to the vast range of teaching methods and practices, it does not necessarily mean that a negligence claim would fail. It is ultimately for the courts to determine objectively what a reasonable person/institution would do in the circumstances: see, eg, Ian M Ramsay, ‘Educational Negligence and the Legalisation of Education’ (1988) 11(2) *University of New South Wales Law Journal* 184, 203; Rosemary Antonia Dalby, ‘A Human Rights Analysis of a Claim for Educational Negligence in Australian Schools’ (SJD Thesis, Queensland University of Technology, July 2013) 202; Caroline Cohen, ‘Australian Universities’ Potential Liability for Courses that Fail to Deliver’, *Colin Biggers & Paisley Lawyers* (Web Page, 15 December 2016) <<https://www.cbp.com.au/insights/insights/2016/december/australian-universities-potential-liability-for-c>>.

39 Tehan (n 8).

40 See, eg, Rochford, ‘The Relationship between the Student and the University’ (n 8); Rochford, ‘Suing the Alma Mater: What Loss Has Been Suffered?’ (n 8); Kamvounias and Varnham (n 8); Middlemiss (n 8); Corones (n 8); Goldacre (n 8).

41 The most prevalent measures commonly relied on in the Australian higher education sector with respect to the implementation of learning outcomes and graduate attributes are curriculum mapping approaches (with varying degrees of sophistication) and student portfolios, passports or the like (although engagement with portfolios within the higher education sector is sporadic): see, eg, Oliver and Jorre de St Jorre (n 2) 826; Oliver, *Assuring Graduate Outcomes* (n 37) 17; Oliver, *Teaching Fellowship* (n 6) 9–10; Gillian Hallam et al, *ePortfolio Use by University Students in Australia: Informing Excellence in Policy and Practice* (Final Report, August 2008).

42 de la Harpe and David (n 33) 493. Australian higher education providers have generally adopted a top-down policy approach to the implementation of learning outcomes and graduate attributes.

these measures cover all levels within the institution — from university management, which tends to establish the learning outcomes and graduate attributes policies, to the academic staff, who are responsible for fostering students' development of the learning outcomes and graduate attributes. However, given that various projects have indicated that academic staff are a vital component to the successful implementation of learning outcomes and graduate attributes,⁴³ the measures centre around informing and motivating academic staff.

Furthermore, the measures presented are maintainable.⁴⁴ If implemented, the measures offered are sustainable, although allocation of resources and funding is required at the initial stages of development and implementation.

The measures are covered according to commonly cited difficulties associated with the implementation of learning outcomes and graduate attributes, identified in Part I of this paper series, namely:

- the disconnect between the intended curriculum and the learned curriculum;⁴⁵ and
- the lack of convincing evidence of achievement and measurement of the learning outcomes by students.⁴⁶

A Aligning the Intended Curriculum and the Learned Curriculum

Australian universities have relied heavily on curriculum mapping as a method of ensuring that the learning outcomes and graduate attributes set in their education policies are integrated in the curriculum that is taught.⁴⁷ Parts of the higher education sector have invested significant resources and funds towards building sophisticated institution-wide curriculum mapping devices.⁴⁸ The use of these curriculum mapping tools does not however necessarily align the intended curriculum with the learned curriculum. Curriculum maps tend to demonstrate graphically where the learning outcomes and graduate attributes are covered in the curriculum of the relevant course of study. Whether these learning outcomes and graduate attributes are actually covered in reality is largely left to the discretion of the academic staff teaching the materials.

43 See above n 16 and accompanying text.

44 See Lawson et al (n 26) 4–5. This report recommended that any strategies implemented with respect to graduate attributes by an institution should be maintainable and not reliant on particular individuals or resources.

45 Oliver, *Teaching Fellowship* (n 6) 18, citing Porter (n 6).

46 Barrie, Hughes and Smith (n 5) 6.

47 See, eg, Oliver and Jorre de St Jorre (n 2) 826; Oliver, *Teaching Fellowship* (n 6) 9–10; Oliver, *Assuring Graduate Outcomes* (n 37) 17.

48 Oliver and Jorre de St Jorre (n 2) 826; Beverley Oliver, 'Graduate Attributes as a Focus for Institution-Wide Curriculum Renewal: Innovations and Challenges' (2013) 32(3) *Higher Education Research and Development* 450, 458–60 ('Graduate Attributes as a Focus for Institution-Wide Curriculum Renewal').

With respect to the implementation of learning outcomes and graduate attributes, research suggests that there is often a disconnection between the intended and learned curriculum.⁴⁹ Usually the learning outcomes and graduate attributes are developed at the university management level — specifying the skills and qualities that graduates from the institution will acquire through successfully completing a course of study at the institution. This represents the intended curriculum. However, this information does not necessarily ascend to the academic staff who are responsible for delivering and teaching the curriculum which corresponds to the relevant course of study, and ultimately what is learned by the students (the learned curriculum). To better align the intended and learned curricula, universities need to bridge the gap between the two stages.

Research indicates that academic staff on the frontline, teaching students, may need a greater understanding of the nature of their institution's learning outcomes and graduate attributes that they are supposed to teach.⁵⁰ For example, Barrie, Hughes and Smith found that academic staff's perception of learning outcomes and graduate attributes were not necessarily consistent with that of their institution.⁵¹ Furthermore, Oliver and Jorre de St Jorre suggested that academic staff 'need to understand how development of [learning outcomes and] graduate attributes within individual units ... fit within the broader degree curriculum', so that students' learning can be better 'aligned and scaffolded'.⁵² Without this holistic understanding of the learning outcomes and graduate attributes established by their institution, it is no surprise that a misalignment exists between the intended curriculum, the curriculum that is taught by academic staff and the curriculum that is ultimately learned by students.

One method universities can adopt to ensure that their academic staff have adequate knowledge of the learning outcomes set for the course of study which the academic teaches, and the institution's overarching graduate attributes, is through an e-learning training module.⁵³ The underlying purpose of e-learning is 'to deliver information and instructions to individuals' using 'computer network technology'.⁵⁴ As a part of the e-learning training module, academic staff should be required to complete an online quiz to demonstrate that they have a sound

49 Oliver, *Teaching Fellowship* (n 6) 18, citing Porter (n 6).

50 Oliver and Jorre de St Jorre (n 2) 826, citing Barrie, 'A Research-Based Approach' (n 28), Oliver, 'Graduate Attributes as a Focus for Institution-Wide Curriculum Renewal' (n 48) and de la Harpe et al (n 9); Barrie, Hughes and Smith (n 5) 7, citing Barrie, 'A Research-Based Approach' (n 28) and Barrie, 'A Conceptual Framework' (n 28).

51 Barrie, Hughes and Smith (n 5) 7, citing Barrie, 'A Research-Based Approach' (n 28) and Barrie, 'A Conceptual Framework' (n 28).

52 Oliver and Jorre de St Jorre (n 2) 826, citing Barrie, 'A Research-Based Approach' (n 28), Oliver, 'Graduate Attributes as a Focus for Institution-Wide Curriculum Renewal' (n 48) and de la Harpe et al (n 9).

53 Minhong Wang et al, 'A Performance-Oriented Approach to E-Learning in the Workplace' (2010) 13(4) *Journal of Educational Technology and Society* 167, 167.

54 Ibid.