

Toolkit to Assist Lecturers to Engage with Graduate Outcomes

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Introduction

This toolkit should be read in conjunction with our Guide, [How to engage with a graduate outcomes agenda: A guide for tertiary education institutions](#) (Spronken-Smith *et al.*, 2013a; see also full report in Spronken-Smith *et al.*, 2013b). The Guide gives definitions of graduate outcomes (GOs), as well as reasons why institutions should be engaged with such a GO agenda. It provides a list of indicators of good practice for engagement with GOs, and a set of enablers for promoting engagement with GOs. In addition, some strategies to better embed GOs in institutions, programmes and teaching are provided.

In this toolkit we first recap from the Guide some important points, pertinent for lecturers who are keen to foster the development of GOs in their students. Then we address key steps that lecturers should take when embedding GOs in their teaching.

Recap of Key Points in the Guide

Graduate outcomes: Definitions

Graduate outcomes (GOs) encompass graduate profiles (GPs), which may be at the institutional (GPI) and/or programme (GPP) levels (see Figure 1). The GPs consist of sets of graduate attributes (GAs) that typically include knowledge, skills and values. Graduate outcomes that are required by the New Zealand Qualifications Framework (NZQF) must include a GP as well as educational and employment pathways for graduates (NZQA, 2011, 2013). Graduate outcomes should not be viewed in an atomised way, but rather as interrelated and holistic. To promote engagement with a graduate outcomes agenda, lecturers should hold a 'translation' or 'enabling' conception of graduate attributes (Barrie, 2006), which means they will purposefully try to foster them in their students.

Why should institutions engage with graduate outcomes?

While a focus on learning objectives began early last century in the United States, the global groundswell of neo-liberalism and related political/economic agendas with a concern for quality in the 1990s led to a focus on educational outcomes beyond the classroom. Since the early 1990s the consideration of graduate outcomes has gained momentum throughout higher education systems in the United Kingdom, Europe, the United States and Australia.

In Aotearoa New Zealand the move to legislate the specification of graduate outcomes has been more recent, with the enactment in 2011 of the New Zealand Qualifications Framework. This framework requires all quality-assured qualifications to specify graduate outcomes that include a graduate profile, and education and employment pathways for graduates.

As well as the specification of graduate outcomes constituting good teaching practice, there is a body of evidence that there are benefits for both students and staff when graduate outcomes are well embedded in curricula. Staff report that the curriculum renewal process fosters collegiality, increases efficiency and importantly, often transforms their thinking about teaching to take a more student-centred approach. Many students report a lack of knowledge about graduate outcomes, and yet they want to know about them to inform their choice of courses, their study and future opportunities.

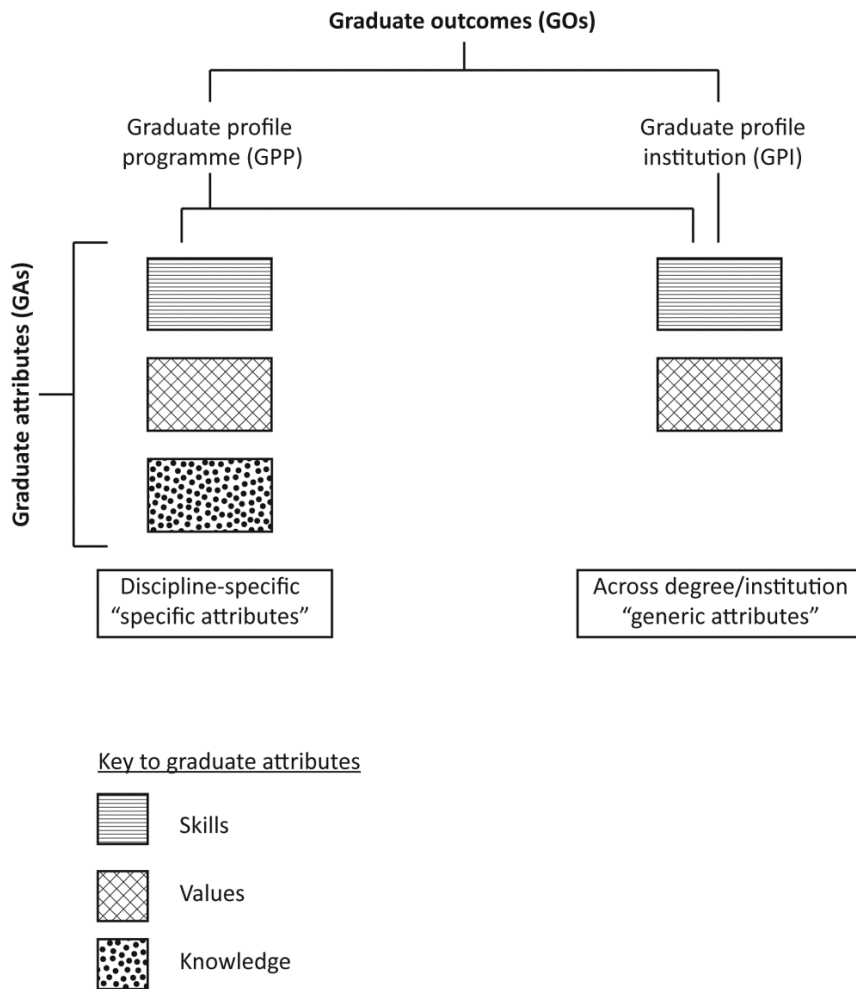


Figure 1: Definitions of graduate outcomes, profiles and attributes that we adopt in this report (Spronken-Smith *et al.*, 2013b)

Note: 'Graduate outcomes' (GOs) is used as an umbrella term to encompass graduate profiles (GPs), which in turn encompass sets of graduate attributes (GAs), consisting of knowledge, skills and values. The number and nature of GAs will vary between institutions and programmes.

What are academic-level indicators of engagement with graduate outcomes?

Academic-level indicators for engagement with GOs are those concerned with teaching towards GAs. They include:

- a sound understanding of the graduate profile for their programme. We hope that this understanding is not simply an atomised list of attributes, but rather a more holistic sense of 'graduateness'
- holding a 'translation' or an 'enabling' conception (Barrie, 2006) of graduate attributes, so that lecturers feel some responsibility to foster graduate attributes in their students
- having clear links between the graduate profile and the learning outcomes and assessment in their courses
- assisting students to track their progress towards attaining the graduate profile. This could be through student advising, the keeping of learning journals, reflective critiques or ePortfolios
- using course evaluation and other evaluative processes to gain feedback on attainment of GOs
- ensuring that students know about the employment options resulting from their degree
- ensuring that students are aware of further educational pathways.

How would you rate your institution using these indicators?

Since lecturers are working at the 'coal-face', it is important for them to realise indicators of student engagement with GOs. These are:

- students being aware of a graduate profile for their programme. However, like lecturers, their understanding of the graduate profile should not simply entail an atomised list of attributes, but rather a more holistic sense of 'graduateness'
- students seeing strong links between the graduate profile and the learning outcomes and assessment in their courses
- students tracking their progress towards attaining the graduate profile
- students knowing a range of employment options resulting from their degree
- students being aware of further educational pathways.

Even in programmes and courses with GOs well embedded we found student awareness of GOs was often lacking. Moreover monitoring of GOs was often quite poor.

How well do you think your students are aware of the graduate profile for their degree?

Do you think your students are tracking their progress towards achieving the graduate profile?

What can enable engagement with graduate outcomes?

Five enablers for engagement with GOs were identified in our research (Spronken-Smith *et al.*, 2013b):

- A) *External drivers* – forces to which institutions were required to respond or that they perceived they were responding, or should respond
- B) *Structural and procedural enablers* – those that facilitated or engaged staff and communities within the institution to become aware of or work towards change in practice in regard to GOs
- C) *Developmental enablers* – those that assisted staff/groups/departments to introduce and develop GOs and embed them in curricula, or undertake some curriculum development
- D) *Achievement enablers* – those that were concerned with how students are assisted to achieve a GP
- E) *Contextual enablers* – generic institutional and/or individual cultural/affective qualities¹ that crossed the four forms described above and made them more or less effective.

A framework showing the relation between the enablers is given in Figure 2 and a range of strategies for each enabler at the lecturer level is given in Table 1.

External drivers are powerful enablers and should be utilised where possible. Whilst structural enablers are often apparent in institutions, what are often missing are procedural enablers, and yet these are crucial to embedding GOs in curricula. Moreover, there should be strong links between the structural and procedural enablers and the developmental enablers. To promote engagement with GOs consideration must be given to each enabler and how this can be enacted at all levels throughout the institution. More thought needs to be given to achievement enablers, as these were less well developed within institutions.

¹ Affective qualities include values and attitudes.

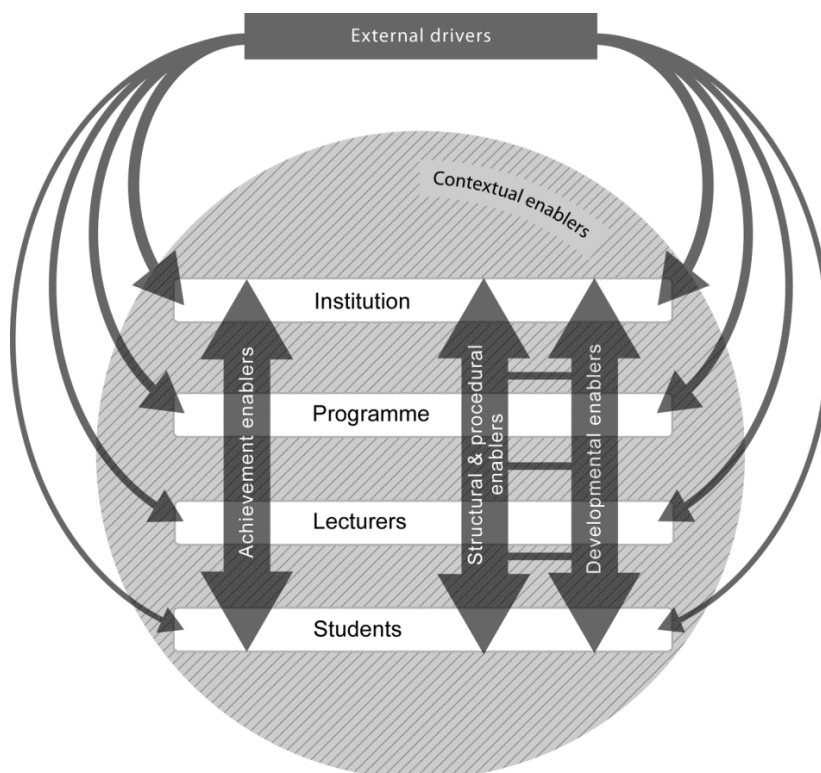


Figure 2: Conceptual framework of enablers for engagement with a graduate outcomes agenda (Spronken-Smith *et al.*, 2013b)

Table 1: Strategies for lecturers to embed GOs in their courses (Spronken-Smith *et al.*, 2013b). Note that these strategies for each enabler are discussed in detail in the next section.

Enablers	Lecturer – what helps lecturers to embed GOs in their courses?
External – forces to which institutions were required to respond or perceived they were responding, or should respond	<ul style="list-style-type: none"> • Bringing in alumni or external practitioners • Using examples from the ‘real world’ • Professional or discipline trends and practices
Contextual – generic institutional and/or individual cultural/affective qualities that crossed other enablers and made them more or less effective	<ul style="list-style-type: none"> • Encouragement and support for a student-centred approach to teaching • Working in an institution/department that values GOs • Valuing staff and providing positive working context • Providing positive feedback
Structural and procedural – those that facilitated or engaged staff and communities within the institution to become aware of or work towards change in practice in regard to GOs	<ul style="list-style-type: none"> • Access to information/people about regulatory and structural aspects of their programme • Teaching awards/promotion criteria/annual reviews that recognise and reward efforts to embed GOs • Guidelines for mapping the attributes to learning objectives and then to specific assessment and learning tasks

<p>Developmental – those that assisted staff/groups/departments to introduce and develop GOs and embed them in curricula, or undertake some curriculum development</p>	<ul style="list-style-type: none"> • Translation or enabling beliefs about the role of GOs and teaching and learning • Having collective ownership of the programme • Being committed to curriculum renewal • Recognition of the discipline • Access to teaching resources • Supportive teaching culture • Seeing curriculum change as a positive process
<p>Achievement – those that were concerned with how students are assisted to achieve a GP</p>	<ul style="list-style-type: none"> • Discussion of educational and employment pathways for graduates • Clearly articulating links between GOs and learning outcomes and assessment • Using signature pedagogies (see Shulman,2005; Spronken-Smith, 2013) and high-impact educational experiences (Kuh, 2008) • Using assignments which require reflection on learning and articulation of the knowledge, skills and values being developed

Key Steps for Lecturers to Engage with Graduate Outcomes

Assuming a graduate profile has been contextualised for the programme (see [HOD Toolkit](#), Spronken-Smith *et al.*, 2013c) the key steps we identified for lecturers to embed GOs in their courses are:

1. Aligning courses with GOs by:
 - a. Determining a set of intended learning outcomes that are well aligned with the graduate profile for the programme
 - b. Creating an assessment regime and teaching and learning activities that are well aligned with the intended learning outcomes
2. Using powerful teaching and learning activities to foster GOs
3. Gaining leverage from enablers of engagement with GOs:
 - a. Drawing on external drivers
 - b. Creating the context for engagement with GOs
 - c. Using processes that assist in the embedding of GOs
 - d. Ensuring developmental enablers are in operation
 - e. Activating achievement enablers including clarity over educational and employment pathways for graduates
4. Monitoring progress of embedding GOs and using feedback to improve the learning experiences for students.

Each step is considered in turn below.

1. Aligning courses with GOs

Key points:

- *In their courses, lecturers need to have alignment between the intended learning outcomes and the graduate profile.*
- *We advocate an 'outcomes-based' approach to designing courses, starting with identifying the intended learning outcomes and then considering assessment and teaching activities.*
- *Courses should have alignment between the intended learning outcomes, the assessment regime, and the teaching and learning activities.*
- *We provide a link to a very useful practical manual to assist lecturers to develop appropriate intended learning outcomes, design their assessment regime, and ensure well-aligned teaching and learning activities.*

Aligning intended learning outcomes with GOs

The key to embedding GOs in a course is to have alignment between the intended learning outcomes and the graduate profile. Across the degree there should be opportunities for students to foster the desired graduate attributes, but note that not every course will be addressing every graduate attribute; some courses may teach towards many graduate attributes while others may only pick up on one or two, and some graduate attributes may be fostered in extra-curricular activities. When designing a course we advise using an 'outcomes-based' approach in which the outcomes are first developed and then consideration is given to the assessment regime and the

teaching and learning activities.

Aligning intended learning outcomes with the assessment regime and teaching and learning activities

As well as aligning the intended learning outcomes with the graduate profile, there should be alignment between the intended learning outcomes and the assessment regime and the teaching and learning activities. Developing intended learning outcomes and gaining alignment between these and the assessment and the teaching and learning activities is not a trivial task. To assist lecturers we have linked in a very practical step by step [Curriculum Redesign Manual](#), developed by the Curriculum Renewal Team (2012) at La Trobe University, Melbourne. We are very grateful to Matthew Riddle and Kurt Ambrose in particular, for sharing this manual with us and ask that, as a courtesy, lecturers who use the resource please inform the Faculty of Business, Economics and Law, La Trobe University, Melbourne of its circulation and replication. They can be contacted at: <http://www.latrobe.edu.au/fbel/contact-us>. In their manual, following a preface, the Curriculum Renewal Team provides sections pertaining to setting intended learning outcomes, creating an assessment regime, and creating teaching and learning activities. With clear explanations and plenty of examples and worksheets to use, we are sure lecturers will find this a very valuable resource.

2. Using powerful teaching and learning activities to foster GOs

Key point:

- *There are certain teaching and learning activities that are particularly effective in developing graduate outcomes. These include signature pedagogies, high-impact educational experiences and, for mastery of discipline knowledge, in-depth teaching of threshold concepts.*

We know that particular teaching methods can help foster a range of graduate attributes (Spronken-Smith, 2013). In each discipline there are “signature pedagogies”, which are characteristic or ‘signature’ ways of teaching that “organize the fundamental ways in which future practitioners are educated for their new professions” (Shulman, 2005, p. 52). He gave the examples of medicine, with bedside teaching, or law with its Socratic method. Because these pedagogies help students to think and practise as a disciplinary expert, they inherently help to foster desired graduate attributes. There are also a range of high-impact educational experiences (Kuh, 2008; see *Excerpt from High-Impact Educational Practices: What They Are, Who Has Access to Them, and Why They Matter*) that again help develop a range of graduate attributes. Some examples include undergraduate research and inquiry, collaborative assignments and projects, capstone projects and community and service-based learning.

As well as skill development, lecturers need to consider core knowledge and how this will be taught. But how do lecturers determine what is necessary for students to know? Conversations with colleagues, particularly more senior ones, will be helpful, and lecturers should also draw on research on ‘threshold concepts’. ‘Threshold concepts’ were coined by Meyer and Land (2005), who said that “in certain disciplines there are ‘conceptual gateways’ or ‘portals’ that lead to a previously inaccessible, and initially perhaps ‘troublesome’, way of thinking about something” (p. 373). Being troublesome they can be difficult to learn, but once grasped they are unlikely to be forgotten since they are irreversible and transformative as the concept is seen in a different way. A literature or internet search will likely uncover threshold concepts for particular disciplines, since this work has had wide appeal with lecturers. If lecturers can determine threshold concepts in their subject, they should ensure that these concepts are given in-depth teaching time to help students progress their thinking.

3. Gaining leverage from enablers of engagement with GOs

Key point:

- *There are five categories of enablers: external drivers, contextual, structural and procedural, developmental, and achievement. A range of strategies should be adopted to ensure each of these is enabling the process of embedding graduate outcomes within courses.*

As noted above, there are five categories of enablers for engagement with graduate outcomes, with strategies shown in Table 1. We consider each in turn below, discussing possible strategies.

Drawing on external drivers

We know that external drivers can be a powerful enabler for engagement with GOs, particularly at the level of the institution and indeed for vocational programmes where external agencies or professional organisations may have a set of competencies that must be achieved in graduates. However, even in the classroom, external drivers can be useful in promoting engagement with GOs. Bringing in alumni or external practitioners, as well as using ‘real world’ examples, can help students to see the relevance of what they are being taught in terms of future employment. Such exposure can be strongly motivating for students.

Creating the context for engagement with GOs

To help lecturers engage with GOs, they should be in an institutional and departmental environment that values good teaching and is supportive and encouraging of engagement with GOs. There should be encouragement and support for a student-centred approach to teaching. In particular, lecturers who have had exposure to higher education theory and/or have won teaching awards should be targeted to help mentor other lecturers in their teaching.

Ensuring enabling structures and processes are in place

If there are teaching awards, promotions criteria and review processes that recognise engagement with GOs, then this sends a strong signal that such engagement is valued. At the departmental level lecturers should have access to staff who are knowledgeable about the regulatory and structural aspects of the programme. Lecturers need to be aware how their courses fit into the overall programme, and which graduate attributes they should be fostering in their teaching. Thus they should have access to curriculum maps for the whole degree, and know that there are staff who can support them in translating the graduate outcomes into their courses. If there are no staff with the requisite expertise in the department to assist with the translation of GOs into courses, then the assistance of an academic staff developer should be sought.

Ensuring developmental enablers are in operation

Lecturers are much more likely to be engaged with GOs if they have collective ownership of the programme. If new lecturers are brought into the programme, they will need to be well briefed about the graduate profile and how the learning outcomes from the courses they teach articulate to the graduate profile. It is clear that lecturers who hold ‘translation’ or ‘enabling’ conceptions of graduate attributes (see Barrie, 2006) believe they should be actively fostering graduate attributes through their teaching. Lecturers holding other conceptions will not think it is their role to teach towards GOs, so some education is required to try and shift these views. This may be through department-wide discussions or one-on-one work with academic staff developers, or indeed in time as curriculum initiatives bed down, since they may see changes in their students, which results in shifting their thinking about teaching.

Reviewing courses or developing new ones takes time and support, and resources and time should be made available for lecturers. If there is a supportive teaching culture, then lecturers are more likely to seek advice from colleagues. Resources such as the *Curriculum Renewal Manual*, described and linked above, can be very helpful to assist lecturers to review and renew courses, but they will need time to do this.

Activating achievement enablers

Lecturers are in a pivotal position to activate achievement enablers that assist students to achieve GOs. They should seize opportunities to make clear to students the possible employment and educational pathways following completion of their degree. Students also need to know what knowledge, skills and values they are developing in their courses. Simply having GOs listed in course handbooks or on websites is not enough to raise awareness in students of GOs. Ideally lecturers should be explicitly discussing which graduate attributes they are fostering in their courses, as well as why and how they are doing this. Using signature pedagogies and high-impact educational practices, as discussed above, will help students foster GOs. However, as well as fostering desired GOs, lecturers can help students to realise what GOs they are acquiring. By using assignments that require reflection on learning and articulation of the knowledge, skills and values being developed, students will gain a greater awareness and appreciation of their education. Some departments also help students to track their attainment of GOs through an ePortfolio framework or by personal advising and mentoring of students.

4. Monitoring of attainment of GOs

Key points:

- *Monitoring is a critical part of the process of embedding GOs and should not be neglected. A range of strategies are available to evaluate attainment of GOs.*
- *Importantly, data gained through evaluation should be used to inform the on-going enhancement of courses.*

It is apparent that while many departments and programmes plan for GOs and ensure they are taught and assessed in their programmes, the monitoring of GOs is given less consideration. Yet, with any curriculum initiative, monitoring is critical to ensure that the desired change is in fact occurring. Therefore, when evaluating courses, lecturers should include questions about the graduate attributes they are fostering. Other mechanisms to gain feedback on attainment of GOs could be via periodic review, graduate opinion surveys, and alumni and employer surveys. As with any evaluative process, the results of the surveys should be fed back to the students, and used to improve their learning experiences.

Conclusion

Any curriculum initiative to embed graduate outcomes in degree programmes relies the most on those doing the teaching – for without the translation of policy into teaching practice, little gains will be made. This toolkit has outlined some considerations for lecturers to assist them in embedding graduate attributes in their courses. The process should be seen as a means to improve student learning, not driven by compliance. When embedding graduate attributes in course, lecturers should ensure they:

- are aware of the graduate profile for the qualification, and how their courses fit into the degree structure

- develop a set of intended learning outcomes for their courses that are well aligned with the graduate profile
- align both the assessment regime and the teaching and learning activities with the intended learning outcomes
- use signature pedagogies and high-impact teaching educational practices that help foster graduate attributes
- explain to students the possible educational and employment pathways available upon completion of their degree
- collect, and act on, evaluative data regarding the achievement of graduate attributes and use these data to inform the continual enhancement of their courses.

Other toolkits are available to assist in the process of curriculum renewal: a Toolkit for Institutions (Spronken-Smith et al., 2013c) and one for [Heads of Departments and Programme Directors](#) (Spronken-Smith et al., 2013d)

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