

Subject Alignment

Subject design strongly influences what and how students learn at university. Good subject design shows a meaningful and coherent connection between the subject learning objectives, learning activities and assessments and the intended course outcomes and graduate attributes. This may be referred to as 'subject alignment'. In the **learning.futures** peer review process we aim to ensure that this alignment is clear and explicit within the subject outline document. This guide provides suggestions and resources for analysing subject outlines and improving this alignment and thus improving subject design.

Designing subjects begins with considering what you want students to learn. Learning objectives, course and subject structures, learning activities and forms of assessment can then be developed with desired student learning outcomes in mind.

What is subject alignment?

The concept of subject alignment is based on John Biggs' model of constructive alignment. Biggs and Tang (2007) describe how learning in a subject can be a motivating, but also challenging experience for the student. Constructive alignment begins with learners constructing their learning through relevant learning experiences. The 'constructive' element, just as the word suggests, refers to the learner's role in the learning process. The learner needs to construct the understandings individually and often collaboratively with peers. Knowledge is not something that is transmitted to them by the teacher. Rather, teaching is simply a catalyst for learning (Biggs 1999).

The second aspect, alignment, refers to the role in creating an environment to support students' learning through relevant learning activities. Carefully designed learning activities ensure that intended learning objectives are achieved, and careful design of assessment procedures ensures the aims of the intended learning objectives are assessed. Hence, all the elements are aligned – the learning and teaching strategies and the assessment tasks, all lead to the objectives being achieved (Biggs 1999).

There are no recipes for perfect alignment, however, if you want to improve students' learning, the following are some starting points for examining subject alignment.

1. Review the subject description

Does the description provide a clear overview of the subject? There should be coherence between this summarised description and the details of the subject outline document.

2. Review the learning objectives

When students read the learning objectives, is the focus clearly on what they will be able to do after completing the subject, rather than what content is covered?

Compare these two statements:

‘As a result of successfully completing this subject, students will be able to use theories x, y and z to interpret and develop possible responses for common problems in group dynamics.’

and

‘This subject aims to cover theories x, y, and z and their application to group dynamics.’

As an intended learning objective, the first statement more clearly signals what students will be expected to do. The second is really a statement of subject content rather than a learning objective.

3. Review the learning activities as represented in the teaching and learning strategies section and the week-by-week outline

Will students see that the learning activities provide them with the opportunity to actively practice the learning objectives? As Pascarella and Terenzini (2005) point out, ‘the most effective teaching and learning require opportunities for active student involvement and participation’ (p. 646). If the learning processes do not meaningfully contribute to achieving the stated learning objectives, consider why they are included in the subject, and whether there are alternatives that develop the learning outcomes more effectively.

Examples of aligned learning activities include:

- problem-based learning activities for an objective requiring problem posing and solving
- a case study for an objective about making connections between theory and practice
- a learning journal for an objective about reflecting on the learning process
- a role play for an objective about being able to understand alternative perspectives
- analysis of a case-based scenario which is of a similar style to an exam question.

At UTS, details of learning activities are usually included in the subject outline within the subject description or the learning and teaching strategies sections. Prior to **learning.futures**, learning activities were sometimes only defined in terms of contact time in lectures and tutorials. Now, as we further encourage students to be active and collaborative learners, it is important that we communicate these expectations by providing relevant detail about expected engagement in learning activities.

4. Review the assessment tasks

If students complete the assessment tasks and meet the criteria, will they have achieved the learning objectives?

Students tend to focus on assessment. The nature of assessment tasks influences the approach students take to learning. If we want students to treat assessment as part of the learning process then we need to ensure that the assessment and feedback process provides them with meaningful information about their performance. It can be very revealing to ask some students about what they did to complete a particular assessment task or prepare for the test or exam. Sometimes tasks that we think require understanding can actually be passed by students who have rote learned chunks of lecture notes, formulae or lists of facts. If students can pass the assessment through rote learning or other minimalist strategies, they may miss achieving learning objectives which, for example, focus on understanding, thinking critically, posing and solving complex problems.

Subject Alignment in Integrating Business Perspectives

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Integrating Business Perspectives (IBP) is a first-year, first-session subject which was specifically designed to demonstrate to students how all the business sub-disciplines – accounting, marketing, finance, economics, and management – need to work together to create business success. As it is one of the first subjects students undertake, there is a focus on ensuring students understand the requirements of academic writing, and they are also required to make persuasive oral presentations.

The outcomes are made explicit in the subject objectives and graduate attributes, for example:

- Individually engage in integrative thinking using multiple perspectives to solve problems.
- Critically analyse and produce written disciplinary texts for academic and professional audiences.
- Produce oral presentations suitable for academic and/or professional audiences.

Within lectures and tutorials/workshops, students are provided with opportunities to develop and practice these skills. The development of academic writing skills is supported by the University's Academic Language and Learning team, who may present within the lecture timeslot, run workshops, and provide online materials.

This learning is explicitly assessed in a major project which includes both group and individual components.

Students are required to prepare a group report which outlines an innovative business idea which addresses a complex or 'wicked' problem. They are also required to present an individual 'elevator pitch', as if they are presenting to a venture capitalist who may be interested in investing in their company.

The assessment description within the subject outline explicitly refers to the subject objectives and graduate attributes that are assessed.

5. Review the graduate attributes and course outcomes

Consider how well the development of the specified graduate attributes can be demonstrated within the assessments, as described in the subject outline.

At UTS, we have recently undertaken a graduate attributes project. In this project, faculties determined or confirmed their faculty and/or course graduate attributes and modified subject outlines to reflect the inclusion of graduate attributes. In some faculties these may have an alternative name to conform with external accreditation requirements, for example ‘program learning objectives’ in Business. To be considered **learning.futures** compliant, the subject outline needs to include the relevant graduate attributes and show how these are learned and assessed within the subject.

Which attributes and the level and degree to which students develop particular attributes in a subject often depend on where the subject is situated in the course. Subjects in the first year and those taken by pathways students in their first session are likely to play a role in helping students to make the transition to university study, while subjects at the end of a course will be preparing students for future employment or research degrees and assuring that students have achieved the intended learning outcomes for the course. If the graduate attributes are absent or unclear, the subject coordinator should be advised to refer to their academic supervisor for further information.

Within the subject outline there should be a clear indication of the alignment between graduate attributes and assessment. For example:

Within the subject objectives:

“Demonstrate and critically reflect on how individuals work in teams in an inclusive manner (GA 3.3)”

Under assessment description

“This addresses graduate attribute 3.3.”

Alternatively, outlines may include a table which maps learning outcomes and graduate attributes to assessments.

It is also possible that graduate attributes may be mapped to certain assessment tasks, however, it may not be clear how the graduate attribute could be demonstrated within the task, as described. Further detail may need to be included.

References

If you want to read more, an excellent article to begin with is: Biggs, J. (1999) ‘What the student does: teaching for enhanced learning’, *Higher Education Research and Development*, 18 (1) 57–75.

This focuses on using the ideas of constructive alignment to help all students to learn in the ways that the more academically inclined do naturally.

Biggs, J. & Tang, C. (2007). *Teaching for Quality Learning at University* (3rd ed.). New York, USA: Open University Press.

Pascarella, E. & Terenzini, P. (2005). *How college affects students: A third decade of research*. San Francisco, CA: Jossey-Bass.

The UTS Subject Descriptions and Outlines Policy contains a list of information that must be included in subject outlines for students: <http://www.gsu.uts.edu.au/policies/subject-descriptions-policy.html>

The UTS Policy and Procedures for the Assessment of Coursework Subjects describes the requirements and procedures for effective assessment of coursework subjects including guidelines for group work assessment: <http://www.gsu.uts.edu.au/policies/assessment-coursework.html>