Assessment Design

The unit coordinator is responsible for designing effective, efficient assessment tasks. There are several key issues to bear in mind when you make choices around the assessment tasks for a unit.

Constructive alignment

A fundamental principle underlying successful learning and teaching is the aligned curriculum (Biggs & Tang, 2011). The seminal work of Biggs (2003) on constructive alignment heralded a shift in thinking from disconnected 'tagged on' assessments to credible assessment tasks that provided the student with the opportunity to demonstrate achievement of clearly communicated learning outcomes (Figure 1.1).
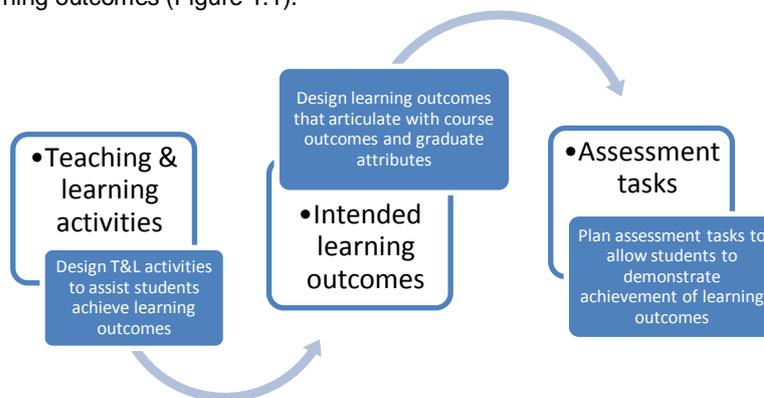
Principle 2: Assessment aligns with intended learning outcomes

Requirement 3.3.1 Assessment tasks and marking criteria will be designed to directly assess the unit learning outcomes. Assessments within a unit will be appraised on the basis of performance criteria defined and communicated to students in advance...

Figure 1.1. Constructive alignment of the curriculum

At Curtin, the Graduate Attributes also need to be taken into account when aligning assessment tasks to outcomes.

Principle 3: Assessment addresses Curtin graduate attributes

Purpose

Assessment tasks can be set for formative or summative purposes, see Figure 1.2. A formative task is concerned with assisting learners to develop their learning and incorporates feedback strategies to support further development in this regard. Conversely, a summative task grades actual learning performances and contributes to the unit grade/mark.
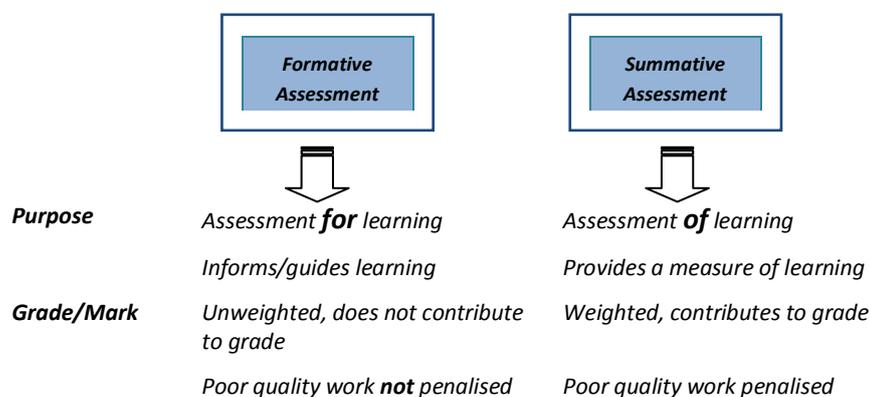

	Formative Assessment	Summative Assessment
Purpose	Assessment *for* learning	Assessment *of* learning
	Informs/guides learning	Provides a measure of learning
Grade/Mark	Unweighted, does not contribute to grade	Weighted, contributes to grade
	Poor quality work **not** penalised	Poor quality work penalised

Figure 1.2. Purpose of a*ssessment*

A sequence of formative tasks can be included in the unit to scaffold students' learning towards undertaking a summative task. Formative tasks (and feedback) are especially useful for new to course students and may influence student retention and study success if done effectively.

Assessment load

The number of summative assessment tasks should be determined based on the need to make valid and reliable judgments about the student's achievement of the unit learning expectations specified in the unit learning outcomes. This is generally achievable in four or less assessments. In planning the assessment tasks, the unit coordinator should consider the following:

- How long will it take a student to complete and submit each assessment task?
- What is the timing of assessment demands and due dates in relation to those for assessments within other units in the same study period?

The effort involved in an assessment task should be commensurate with the credit awarded for that task. It is helpful to remember that a 25 credit unit is equivalent to a quarter of a full-time study load and therefore a student has approximately 10 hours per week to allocate to study in any one unit. This time has to be shared across class contact, private study, related discussion or thinking about learning, seeking assistance or looking for resources, administrative tasks as well as assessment tasks. Where students are completing group-based assessments, time for student collaboration must also be considered. The amount and scheduling of assessed work should be planned to avoid overloading students (and staff). Students struggling to manage their study and assessment load may resort to surface level approaches to learning, as well as plagiarism; whilst the pressures on staff may impact on meeting marking deadlines and providing quality feedback.

Assessment tasks should be spaced throughout the semester, and include formative tasks as well as summative tasks. Ideally, set one assessment task early, and try to make sure students have feedback within the first four weeks of semester. An early, low stakes assessment can often alert both students and teachers to weaknesses that should be addressed. In some disciplines or foundational units, students may be asked to complete smaller more frequent pieces of assessment, especially where productive learning is dependent on sequential skills development.

Authentic tasks

Learning experiences are underpinned by educational theories; these same theories should be extended to assessment practices. Some of the theoretical perspectives that are influential in contemporary learning practices are the:

- constructivist perspective, where learners actively engage in the construction of their knowledge. Inquiry based assessments that support reflection and self-direction are appropriate to this perspective;
- social constructivist perspective, where learners develop and construct knowledge through social engagement. Assessments that involve working with peers and groups on collaborative tasks reflect this perspective, and
- situational perspective, where learners develop knowledge through engagement in communities of practice related to the discipline field. Assessments include authentic, simulated tasks as well as fieldwork practice (Joint Information Systems Committee [JISC], 2010).

An authentic assessment is one that is contextualised within the real world, requiring the learner to engage in a task that is part of discipline specific practice. It is essential that assessments are student-centred to align with student-centred learning approaches. There is little point in planning learning experiences that offer real-world authentic experiences and then in the main assessing learning with a multiple choice test format.

Learning modes

People learn in different ways and have different styles of learning. Much has been written about this field. The recent work of Fleming (2011) puts forward a 'Vark' model of learning that identifies four overlapping dimensions. These dimensions are worth considering when you plan the students' learning and assessment experiences, see Figure 1.3.

The dimensions are:

- visual – learning through visual formats, e.g. graphs and drawings;
- auditory – learning through aural formats, e.g. audio files, group presentations;
- read-write – learning through written formats, and
- kinaesthetic – learning through perceptual, experiential formats, e.g. simulations, demonstrations.

These overlapping dimensions are worth considering when making decisions on the assessment task to maximise engagement of the learner, whilst meeting the different learning preferences of students.
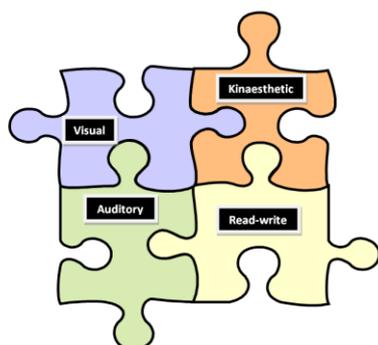

Figure 1.3. Learning dimensions

Inclusive and equitable assessment

Assessment tasks and procedures should be inclusive and equitable, that is they should not disadvantage any individual or group. In planning assessment tasks, keep in mind the principles of universal design, i.e. consider the disabilities that students might have and, if necessary, determine a strategy for extending accommodations to assist students with disabilities. Curtin's Accessible Information Policy and Procedures specifies that information must be provided in alternative formats on request. For further information see Curtin's Disability Access and Inclusion Plan.

Students who request special consideration on assessment tasks because of religious commitments, a disability or medical condition should be directed to University Counselling Services. A Curtin Access Plan may be developed with the student to determine the details of allowable alternative arrangements for university and school-based assessment. If such special consideration is required, students should make a request for alternative examination arrangement at least 3 weeks before the event and 2 weeks before a school-based assessment.

When communicating details of the assessment the unit coordinator must ensure it is understood by all students. Potential bias towards certain groups, for example related to race, cultural or gender, must be minimised by the use of inclusive language and practices wherever possible.

Equitable assessment also takes into account how an assessment task will operate across different teaching locations and in different modes of study. It may not be possible to conduct an assessment task in the same manner at all of Curtin's teaching locations, perhaps due to equipment differences, insufficient student numbers for a group-based task, oral presentations for external students, etc. In these circumstances the assessment task may not be the same, but should meet the same purpose and be equivalent in standard, rigour and student demands.

Quality Assurances

It is the responsibility of the unit coordinator (and teaching team) to ensure that assessment tasks are well thought through to ensure validity and reliability.

Validity

Assessment of a student's knowledge and skills usually results in a mark or a grade that represents the knowledge, skills and abilities being assessed. Validity refers to the extent to which that mark (or grade) measures what it claims to measure. Does it measure the student's achievement of specific learning outcomes? Is it a measure of the current state of their knowledge? For example, a mark based on a student's recall of knowledge is not a valid measure of the student's ability to apply that knowledge. An essay examination might be a measure of students' essay writing skills rather than their ability to apply discipline knowledge.

Reliability

Reliability refers to both the accuracy and precision of measurement within an assessor (internal reliability) and between assessors (inter-marker reliability). If an assessment is reliable, different tests of a student's particular skills, if administered independently, should give the same result. Subjectivity should not influence the assessment task and its marking, such that different

assessors should arrive at the same conclusion about a student's learning. The use of marking rubrics and guides can enhance reliability.

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