

Marking

Marking and Grading Assessments

The Curtin University [Student Charter](#) states that every student can expect to have “... timely fair and constructive assessment of work.” Assessment tasks must be marked in such a way that the mark or grade reflects how well a student achieved the learning outcomes and in accordance with the assessment criteria. In addition to a mark, returned assignments must be accompanied by feedback that clearly explains how the mark was derived (summative feedback), as well as how the student can improve (formative, feed-forward).

Assessments within Grade/Mark units are required to be scored using percentage, whilst assessments within a Pass/Fail unit should include marking annotations but not necessarily a percentage score. Marking at Curtin is based on a criterion referenced framework, which means “assessment will be made on the basis of performance defined by pre-specified criteria, rather than norm-referenced approaches where assessment is made on the basis of performance relative to that of other members of the class or cohort. In criterion referenced assessment, practices such as scaling marks and grading students to fit a normal distribution curve are not appropriate” (Principle 2, [Assessment and Student Progression Manual: Consolidated Policies and Procedures](#), p. 9).

Marking Schemas/Guides

In planning any assessment task the criteria for which it will be assessed against need to be established and communicated to the student. Several approaches can be used to assist marking. A simple checklist-style marking guide (see Figure 3.1) or a more complex rubric style marking guide can be developed to make explicit the requirements against which work will be assessed.

	Does not meet expectations	Below expectations	Meets expectations	Above expectations
Introduces and argues the case for the project	0	1	2	3
Analyses and reports on the literature/evidence	0	1	2	3
Summarises the key argument	0	1	2	3
Formats report according to APA style	0	1	2	3
Etc.				

Figure 3.1. Extract of simple marking guide. The score obtained for each criterion can be circled or highlighted.

In a rubric, criteria are established and generally listed on the vertical axis of a matrix, whilst levels of performance standards against which the criteria are judged are detailed on the horizontal axis (or vice-versa). For each criterion, descriptors of performance across a continuum of development are detailed, see Figure 3.2. These performance measures can be coded numerically to provide a marking score.

	Does not meet expectations Score 0	Below expectations Score 1	Meets expectations Score 2	Above expectations Score 3
Project definition	Definition is missing	Narrow focus, ambiguous and lacks specificity to project brief	Clear, unambiguous approach to meet project brief	Focused, and creative approach to project brief
Strategy effectiveness	Strategy is not detailed	Not planned well and lacks some coherence with project aims	Achievable, credible, coherent strategy that meets project aims	Skilfully planned strategy that comprehensively addresses project aims in an original way
Etc.				

Figure 3.2: Extract of a marking rubric. The score obtained can be included in an additional blank column to the right of the matrix or for efficiency the relevant descriptive statement can be highlighted.

Criticism has been levied at marking schemas for several reasons, for example, it is suggested that marking guides can be made too simplistic and therefore may be of limited use to students in understanding the requirements of an assessment task and in overcoming marker subjectivity, whereas rubrics have been criticised for their reductionist approach, making the performance descriptors so prescriptive that student creativity is stifled (Dunn, Morgan, O'Reilly & Parry, 2004). Despite these reservations a marking schema offers several advantages, it can:

- make assessment processes open and accountable;
- provide diagnostic feedback to students and staff on students' learning so far;
- help students develop, revise and produce better quality work given the requirements of the task are made evident;
- improve comparability when there are several assessors, and
- be re-used; the task or the content may change but the scoring schema may be the same.

Developing a Marking Guide

Before you consider developing your own marking schema explore what is in the public domain and what is being used by your peers. Many generic rubrics are available in texts and on the Web and their adaptation to an assessment task can save the teaching team much time and effort, see links in the practical resources at the end of this section. The [VALUE \(Valid assessment of learning in undergraduate education\) rubrics](#) provided by the Association of American Colleges and Universities are well worth reviewing; there are fifteen rubrics addressing generic skills including ones relevant to Curtin's Graduate Attributes, for example: critical thinking, communication, lifelong learning and information literacy. Also an automated interactive rubric tool is now available on Blackboard, refer to the Rubrics information under the Marking tab.

You can use the following steps to help you develop your own rubrics.

1. Determine the criteria (essential elements) of the assessment task (vertical axis), for example logic of argument, efficiency of solution and effectiveness of communication.

2. Decide the standards of achievement (horizontal axis). For example:
 - Independent, assisted/supervised and dependent;
 - competent, satisfactory, developing and not satisfactory;
 - above expectations, meets expectations and below expectations, and
 - excellent, good, satisfactory, less than satisfactory.

3. Develop the performance descriptors for a rubric schema. The most difficult aspect of constructing a rubric is formulating and clearly articulating the descriptor for different levels of achievement. For each dimension of performance, try to determine qualitative or quantitative differences that characterise achievement at the different levels. The description at each level should be clear and unambiguous, avoid different levels of the same character (e.g. good, better, best). State (if possible) the consequences of performing at each level. For example, the standard of the work would (or would not) be accepted by the profession or a business or a professional journal. Figure 3.3 illustrates the standards and performance descriptors for a generic problem solving rubric.

	Unacceptable	Needs improvement	Good	Excellent
Accurately identifies constraints or obstacles	Identifies some constraints that are accurate along with some that are not accurate. Omits the most significant constraints or obstacles.	Accurately identifies the most important constraints or obstacles.	Addresses obstacles or constraints that are not immediately apparent.	Accurately and thoroughly describes the relevant constraints or obstacles.
Identifies viable and important alternatives for overcoming the constraints or obstacles	Presents solutions that fail to address critical parts of the problem.	Presents alternative solutions for dealing with the obstacles or constraints, but the solutions do not all address the important difficulties.	Proposes alternative solutions that appear plausible and that address the most important constraints or obstacles.	Identifies creative but plausible solutions to the problem under consideration. The solutions address key difficulties posed by the constraint of obstacle.
Selects and adequately tries out alternatives	Does not satisfactorily test the selected solutions.	Tries out the alternatives but the trials are incomplete and important elements are omitted or ignored.	Puts the selected alternatives in trials adequate to determine their utility.	Engages in effective, valid and exhaustive trials of the selected alternatives. Trials go beyond those required to solve the problem and show a commitment to an in-depth understanding.
Accurately articulates and supports the reasoning behind the order of their selection, and the extent to which each overcame the obstacles or constraints	Describes an illogical method for determining the relative value of the alternatives. The student does not present a reasonable review of the strengths and weaknesses of the alternative solutions that were tried and abandoned.	Describes the process that led to the ordering of secondary solutions. The description does not provide a clear rationale for the ordering of the alternatives, or the student does not address all the alternatives that were tried.	Describes the process that led to the ordering of secondary solutions. The description offers a clear, defensible rationale for the ordering of the alternatives and the final selection.	Provides a clear, comprehensive summary of the reasoning that led to the selection of secondary solutions. The description includes a review of the decisions that produced the order of selection and how each alternative fared as a solution.

Figure 3.3: Example rubric for assessing generic problem-solving skills

Avoid having too many dimensions of performance or levels of achievement. Overly complex marking guides reduce the effectiveness and the efficiency of the approach.

4. Decide on the scoring system to be used. Holistic marking approaches allocate a grade or performance level to a student simply on the basis of performance against explicit standards (without resorting to mark breakdown). Analytic marking allocates a specific number of marks for each criterion or performance level.

One issue is whether or not to award any marks for unsatisfactory performance. It might be possible to accumulate enough marks for unsatisfactory performance to tip a student over the magical 50%. An alternative is to set a criterion for passing that states there must be no element for which performance is unsatisfactory (regardless of the overall mark). Another way to limit this is to allocate an 'overall performance' as one of the dimensions of performance.

5. Evaluate and revise accordingly. Few marking guides/rubrics will be constructed perfectly the first time. They are developmental tools and need to be critically evaluated after use. When you review the tool, ask:
 - Does it measure the learning outcome(s) that you want to measure and not unimportant/extraneous outcomes?
 - Does it address the important dimensions of performance?
 - Are the performance levels and scales well-defined?
 - Is there a clear basis for assigning scores at each scale point?
 - Do the 'excellent' descriptors describe a high enough performance standard?
 - Is there sufficient distinction between each dimension?
 - Can students easily interpret each of the descriptors?
 - Can different markers apply the marking guide/rubric consistently?
 - Is the marking guide/rubric fair and free from bias?
 - Is the marking guide/rubric useful, feasible, manageable and practical?

One of the more sophisticated but effective uses of a scoring Marking Guide is to have the students collaboratively decide on the assessment criteria. This makes them much more aware of the criteria and what they mean, as well as giving students greater ownership of the process. Where this is not possible, consider other ways of getting students to engage with the criteria at an early stage, for example using self or peer review and marking. As an example, this could be achieved by asking students to use the criteria to make comment on selected samples of previous work. This approach could also be used to engage self and/or peers in a review process, where judgements are made against the criteria on de-identified student's work. Through the review process students identify more clearly what is required for the task and can identify strengths and weaknesses of the reviewed work against the criteria (Beven & Sambell, 2008; Race, 2001).

Self and Peer Marking

Students learning (and their ability to 'learn how to learn') can be improved when they engage in deliberate thought about what they are learning and how they are learning it. Encouraging students to step back and reflect on their learning can be a powerful way of identifying strengths and areas for improvement, especially where self assessments are set against assessments made by their peers or tutors. The reflective component of activities like this can form a part of the assessment task and can be marked as part of the assessment.

Peer assessment can be used in two main ways, peer assessment **for** learning and peer assessment **of** learning (through grade allocation). Peer assessment for learning is an extremely powerful way of helping students to grasp the characteristics of quality work. It occurs through critical reflection on another's work and through feedback provided by peers on their own (Benson, 2009; Race, 2001).

Peer assessment can take many forms. One way might be to ask students to give formative feedback on three other pieces of student work. The work should be de-identified so that neither the student submitting the work or the peer marking the work is identifiable. Another way might be to use the audience to rate and review student presentations on a topic, either in a classroom setting or a presentation delivered on-line. In these scenarios peer feedback can be used to give extremely rapid feedback in larger group settings.

If self and peer approaches are to be successful, students must clearly understand why this type of review/marketing is being used to avoid the approach being viewed as a way of reducing marking loads. Self and peer review/marketing tasks can take some time to set up. To be effective the processes need to be carefully thought through and time allocated to engaging the students in a

discussion about the process and marking instruments to be used so they understand what is required. Several researchers have demonstrated the immediate and sustained effects of peer review and marking, suggesting success occurs from close engagement with the assessment criteria (Benson, 2009; Rust, 2003; Topping, Smith, Swanson & Elliott, 2000; University of Strathclyde, 2007).

Digital technologies are available to automate self and peer review and marking, for example SparkPlus, and are worth considering improving efficiency of marking practices.

Marking Group Work

There are many different ways of allocating marks to individual students for the quality of their contribution to the group product. Key considerations are:

- What exactly will be assessed: the product of the group, the process of the group work, or both (and what proportion of the total mark will be allocated to each)?
- What assessment criteria will be used and who will determine them: teaching staff, students or both? Students in groups need assessment criteria before they start work. Where students are to be involved in deciding the criteria, this process should occur at the beginning and all students must receive a written copy of the agreed criteria.
- Who will apply the assessment criteria and determine marks: teaching staff, students (peer and/or self assessment), an external assessor or a combination?
- If groups are to be given a total mark to 'share' according to individual contributions, how will the shared mark be determined, distributed and justified?

The four marking models described next show some different ways of recognising the contribution of the individual student. In each case, it is assumed that students have written criteria that enable them to award marks and that, where relevant, they are given the distribution of marks.

Model 1: All students get the same mark or grade regardless of individual contribution

Example: A group of students prepare a business plan for a company. The business plan is awarded a mark of 16/20. Each student thus gets 16 marks.

If professionals in a discipline area customarily succeed or fail on the basis of team performance alone, and the contribution of individuals is of little importance, assessing students this way may be fair. This group assessment model is used frequently and students often complain about it because they know that some students get marks without making a fair contribution.

Model 2: Students get an individual mark from a limited pool of marks

Example: A group of four students prepares an environmental impact report. They get 24/30 marks for the report. They distribute the marks among themselves according to their individual contribution. Some students get more than 24 marks and others less.

This model is difficult to justify except in industries where group project earnings are divided according to contribution (and this is usually done by contract before the work begins): students compete for a limited number of marks (and students have to negotiate their mark with the group), and students from different groups who make the same effort probably won't get the same reward.

Model 3: Students are allocated marks according to the role they played in the group

Example: A group of three students prepare an educational website. One student has the role of website designer/manager, another is the instructional designer and the third researches the content for the site. Each student has criteria for the quality of their aspect of the completed website, and is required to explain or justify their contribution. The website is awarded 18/20 for web design, 15/20 for instructional design and 17/20 for content. The students get 18, 15 and 17 marks respectively.

This model is fair if all the criteria are made clear beforehand, and if all students have an equal chance of playing the role in which they feel most competent: this is unlikely to be the case.

Model 4: Students get a group project mark and a separate mark for an individual product

Example: A group of six students undertakes a six-week research project on the geomorphology of a particular region. They produce a final group report, for which they receive a group mark. In addition, students were assessed individually: they were required to submit a research diary recording their progress, relevant diagrams and printouts and findings at weekly intervals throughout the six weeks.

This model is fairer in the sense that a separate mark is allocated for evidence of individual effort. If the individual work shows that the student clearly made no or too little contribution to the group project, then the group mark for that student can be withdrawn. In this case, students must be warned well in advance.

Assignment handling and security of results

All staff involved with marking are required to ensure students' work and marks are handled appropriately. Staff are responsible for organising the secure collection and return of assessments, preferably electronically, although some assessment tasks involve work and presentations where this is not relevant or achievable. Post-marking, a student's work cannot be deposited in a freely accessible storage area; they must be returned direct to the student. Students are required to keep a copy of assignment work submitted for grading.

The unit coordinator is responsible for moderation processes (refer to moderation section) and analysis of results. Final marks should not be adjusted based on norm-referenced criteria; scaling in this sense is unacceptable at Curtin. Post-marking moderation techniques allows for the adjustment of marks where evidence exists of a disparity in the marking approach used across the team. No marks should be altered as a result of moderation processes when work has already been returned to students.

The unit coordinator as the examiner for the unit is also responsible for ensuring accurate records of marks are stored securely in an approved repository, for example Blackboard's Grade Centre. Changes to any stored grades must be processed by the unit coordinator. An appointed co-examiner assists the examiner in assessment tasks, including accuracy of final marks. For a description of the examiner and co-examiner's roles refer to the [Assessment and Student Progression Manual: Consolidated Policies and Procedures](#) (section 8.10). At the end of semester marks should be backed up on the University network. If marks are stored elsewhere they should be uploaded to the University network on a regular basis. At the end of the examination period, the Unit Coordinator is required to upload student results into Student One within the university deadline, usually the Wednesday of the week immediately after the examination period.

A Board of Examiners (BOE) is a formal Curtin committee convened at the end of each study period to review the performance for each student and to ensure that all assessment is conducted in a fair and equitable manner. Information about the roles and responsibilities of the BOE is available in the [Assessment and Student Progression Manual: Consolidated Policies and Procedures](#) (section 8.1). Course and unit coordinators are required to attend the Board of Examiners to substantiate grades, see Table 3.1, and to discuss the performance and status of students. This should involve the provision of an analysis of results, including mark distributions across marking teams and study locations where applicable. Additionally, unit grades for each student are reviewed and determined using the [approved nomenclature](#) (section 8.2). The course results for each student are ratified by the Board of Examiners at the end of semester, and [course status](#) (section 8.5) determined to be either 'Good Standing', 'Conditional' or 'Terminated'.

Appeals

The process with appeals against assessment are detailed in the [Assessment and Student Progression Manual: Consolidated Policies and Procedures](#) (section 9). An appeal can be made by any student who feels their mark is unfair or incorrect. In the first instance a student makes an initial request for review and where resolution is not considered satisfactory by the student a formal appeal can be made. Strict processes and timelines around appeals apply.

Principle 1:
Assessment practices will be subject to quality processes

Requirement 3.5.1
Assessments are to be submitted electronically via the University learning management system whenever it is possible to do so.

Requirement 3.5.4
Marks for each assessment task are to be entered into a secure repository approved by the relevant Pro Vice-Chancellor. The Grade Centre in Blackboard is a University-wide approved repository.

Requirement 3.5.5
Any changes to student marks for an assessment task must be approved by the relevant unit coordinator. A detailed account of the changes will be recorded in the secure University-wide repository.

Requirement 3.7.4
Assessment tasks and/or feedback must be returned directly to the student(s) concerned, and must never be left unattended for collection. Direct returns may be made electronically, by post or by collection. Where work is collected in person the identity of the student should be verified: student assessments and/or feedback must not be passed to a third party unless written permission by the student concerned is provided.

Curtin's grading system

Grades Awarded	Percentage mark range	Equivalent grade
F	Under 50%	F Fail (F)
5	50 – 59	Pass (P)
6	60 – 69	Credit Pass (CP)
7	70 – 79	Distinction (D)
8	80 – 89	High Distinction (HD)
9	90 – 99	High Distinction (HD)
10	100	High Distinction (HD)

Keeping marking manageable

With increasing student enrolments marking loads can be overwhelming. Marking related workload can also be impacted by administration processes, plagiarism detection methods and the nature of marking and feedback mechanisms. Assessments and associated marking may have worked well in the past, but given increasing student numbers, diverse study modes and locations the assessment task may need to be rethought:

- review assessments to determine if fewer or alternative forms of assessment tasks can minimise marking requirements whilst attaining the same outcomes;
- self and peer marking strategies;
- marking rubrics/guides, especially automated ones;
- electronic marking software and tools;
- efficient feedback strategies (refer to feedback section in this Handbook);
- efficient plagiarism detection and management processes;
- efficient assessment handling processes, which may involve non-academic staff.

References

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- Rust, C., Price, M. & O'Donovan, B. (2003) Improving students' learning by developing their understanding of assessment criteria and processes, *Assessment and Evaluation in Higher Education*, 28(2), 147-164.
- Topping, K. J., Smith, E. F., Swanson, I., & Elliott, A. (2000). Formative peer assessment of academic writing between postgraduate students. *Assessment & Evaluation in Education*, 25(2), 149-66.

Recommended readings

- Calma, A. (2011). *Creating and using rubrics*. The Teaching and Learning Unit, University of Melbourne.
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