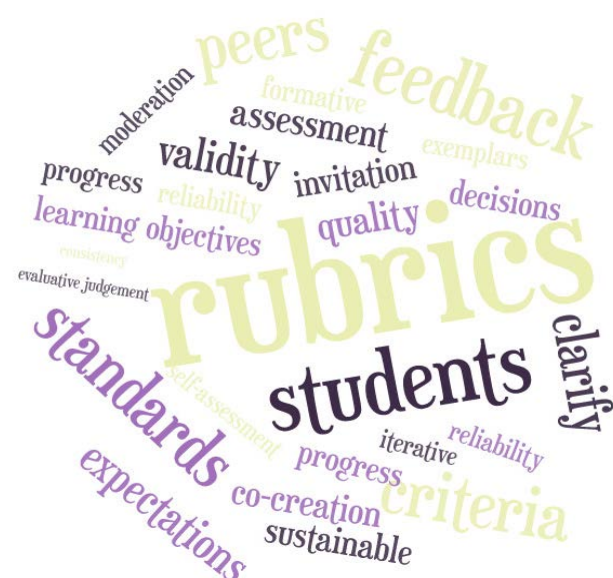# Creating and Using Assessment Rubrics

What is an assessment rubric?

The design of assessment rubrics is an important part of the learning and teaching cycle. Rubrics clarify expectations, set parameters and provide students and educators with feedback. At the same time, our assessment tasks, and the associated rubrics, need to meet the expectations governing students' achievement such as the University's grading schemes, Tertiary Education Quality and Assurance Agency (TEQSA) (the Australian universities regulatory authority), the Australian Quality Framework (AQF), and relevant professional or industry standards or guidelines.

Assessment rubrics can be created by educators, by students or by a combination of both to assist them (educators and students) to anticipate, communicate and interpret the requirements of an assessment task and the expected qualities and levels of work. The process of designing rubrics is iterative. It is difficult to get a new rubric exactly right the first time. Rubrics are improved through reflective practice and feedback – feedback from colleagues and from students' use of the rubric through formative assessment.

Rubrics come in many shapes and sizes. Try typing "examples of university assessment rubrics" into any search engine and you'll find a plethora of different rubric styles. In the current outcomes-based education climate, rubrics are often presented in the form of a table (or matrix) with stated criteria, which are aligned to the intended learning outcome(s) for the Course, and a description of what the qualities of the work presented looks like at different standards of performance. This form of rubric commonly contains these elements:

- A criteria statement;
- Standards delineating levels of achievement;
- Descriptions of the quality of work for each standard (grade level) (depending on the type of rubric); and
- A scoring strategy (Dawson, 2017).

As educators, there are ways we can create and use rubrics with our students that will assist them to develop and exercise their own evaluative judgement of what constitutes quality work. Evaluative judgement is defined by Tai, Ajjawi, Boud, Dawson, and Pandero (2018, p. 1) as "the capability to make decisions about the quality of work of oneself and others". This is not just useful for academic success but should be transferrable to the workplace where professionals are required to make judgments about their work and the continuing professional learning needs.

How do you make/revise a rubric?

The bare essentials of creating an assessment rubric involves:

- Identifying the assessment criteria – i.e. what should students know and be able to do?

- Writing a description of the qualities of the assessment work for each standard (grade level) – i.e. how will I know when students know it and do it well?

This is commonly broken down into six questions you may wish to ask yourself when revising or creating a rubric:

1. Why – Why do you want to use a rubric in the first place?

2. Which – Which type of rubric will you use for this task?

3. How – How does the assessment task fit with the Course learning outcomes?

4. What – What qualities do you hope to see in students' work?

5. Who – Who will use this rubric - you, your students or a combination?

6. Moderation – How will you respond to feedback about the rubric to review and revise it?

Depending on your level of experience and confidence with designing assessment, you may use these questions as steps to designing a rubric. You can go through them sequentially, or skim through each and choose to focus on one or two considerations for now and come back to the rest later. Either way, these considerations are prompts for your thinking about what's important in your rubrics, what's working well and what could do with a review.

Developing a Rubric or Redeveloping an Existing Rubric

Use the steps below to revise and redevelop existing rubrics or create new ones.

Step 1: Choose a relevant assessment task

Choose a Course that you are currently teaching, intend to teach, or have taught. Now choose an assessment task to focus on. Identify some ways to engage your students with the rubric so as to help students become more familiar with the assessment expectations and prepare themselves for assessment feedback.

Step 2: What's your purpose for this rubric?

An upshot of a well-constructed rubric is a reduction in the number of student questions about the assessment task. Jot down what you see as the most important goal for your chosen assessment task. You can use the list below of nine possible purposes for using a rubric, as a guide but feel free to add your own purpose if you have one that is not on the list.

1. Clearly describing for the student and the marker the requisite performance for each assessment standard. As such, marking rubrics improve the objectivity of evaluating student performance by specifying the same assessment criteria and assessment standards to be applied to the work of all students (Donohoe-Dennison, Rosselli, and Dempsey, 2015).

2. Providing consistency in evaluating student work when there are multiple markers (Donohoe-Dennison et al., 2015).

3. Indicating student progress towards achieving the intended learning outcomes of the Course and Program.

4. Informing future teaching practice. Marking rubrics provide educators with feedback on student learning and reveal misconceptions which can be factored into revising the assessment in future.

5. Helping students to be successful. Marking rubrics communicate the expectations of what the

desired student performance looks like.

6. Stimulating discussions on student performance as a formative in-class tool (Dawson, 2017).

7. Encouraging students to self-evaluate and revise their work before submitting the final version of the assessment task for grading (Ajjawi, Tai, Dawson and Boud, 2018).

8. Comparing self-assessment with markers' assessment where the feedback focuses on explaining the differences between the students' and the markers' determination of levels of achievement (Dawson, 2017). This encourages students to think, reason, and make judgements to support self-improvement.

9. Increasing student involvement with and ownership of assessment by including them in the development of criteria standards (Stevens, Levi and Walvoord 2012).

Step 3: Choose what type of marking rubric will you use

Rubrics generally vary across the continua of dimensions. There are several reasons for choosing one type over another such as:

- Matching what colleagues have done in other courses (or deciding to differ).

- Keeping with conventions in the School/discipline/profession (or again, deciding to differ).

- Knowing who will be using the rubric (you, your students, other staff).

- The type of assessment task (oral or written, portfolio, report, essay, creative writing).

- The amount of information you want to or can provide.

- Whether you are completing the marking in-class or as a marker online.

- Other reasons (which you will specify in the activity below).

Step 4: Select a theoretical framework

Determine which theoretical framework(s) would support the development of assessment criteria and standards in your Course. Taxonomies include: Biggs and Collis' *Structure of Observed Learning Outcomes* (SOLO) which describes five levels in the learner's development of deep conceptual understandings; and Bloom or Miller which list levels in the learner's development of abilities associated with complex and creative thinking. Once you have considered the connection these taxonomies provide between the intended course learning outcomes and the assessment task, you will find it easier to complete the next activity – writing grade descriptors for your chosen assessment task.

Step 5: Identifying criteria

Review the learning outcomes for the Course and identify which ones are applicable to this assessment task. On your own or in collaboration with students devise a number of criteria (approximately 6 to begin with) which reflect this alignment between the assessment task and the learning outcomes of the Course and devise succinct and clear ways to express them.

Step 6: Writing a descriptor

On your own or in collaboration with students write a sentence or two for the high distinction level of one criterion. In the descriptor, circle the words that indicate various levels of performance. These are the words that will be changed as you write descriptions for the remaining levels of performance. Select one of the theoretical frameworks – either one of the three above or choose one from your discipline. Consider how the levels of performance – your circled words – will change as you move down the grade levels. Now write the descriptors for the rest of the levels of performance (i.e. the D, C, P and F grade levels) for that criteria.

It is not enough however to move from highly complex to complex as it doesn't really communicate the differences in expectations of their work.

Repeat this process for each of the criteria to develop a finished rubric.

Developing Criteria

How well students achieve the learning objectives is assessed through the use of the criteria and standards in your rubric. To begin writing your rubric, look at your chosen assessment task and identify the main learning objectives being assessed by the task. Now write a criteria statement which matches each objective.

Criteria are often focussed on students' application of disciplinary knowledge. You should also consider the importance given to student's ability to communicate their knowledge. How much weight does the clarity or style of written or oral communication carry in your rubric? How is students' ability to communicate developed and assessed throughout the Program – from the foundational to the final year?

It is often beneficial for both you and your students to collaborate in the development of criteria as it opens up a dialogue about what the assessment activity is meant to assess and why, and provides an opportunity to establish common understandings of the learning objectives for the subject overall as well as individual assessment tasks.

Developing Descriptors

In a rubric, the descriptors outline the qualities and elements in the students' work at different standards– that is:

> 'a definite level of excellence or attainment, or a definite degree of any *quality* viewed as a prescribed object of endeavour or as the recognised measure of what is adequate for some purpose, so established by authority, custom, or consensus' (Sadler, 2005, pp.188-9).

When students know the expectations of the task, they are more likely to strive to achieve and exceed the expectations (Donohoe-Dennison et al., 2015). The descriptors are not intended as prescriptive statements of adequate work. Rather they are an invitation for students to engage with expert-informed ideas of professional qualities and excellence. In keeping with Sadler's definition, it is important that your judgement on the quality of student work is informed and critically oriented towards established standards at the broader sector, profession and institutional level – such as:

- The Australian Qualifications Framework (AQF).

- Relevant profession/discipline specific requirements – e.g. professional competency frameworks.

- The University of Notre Dame's grading hierarchy (See section 5 of the University's Procedure: Assessment in Higher Education Coursework, ELICOS and Enabling Courses).

- Peer-reviewed exemplars of assessment design in higher education – see for example Carless' analysis of assessment tasks from award winning teachers (2015) or the FLIPCurric Powerful Assessment Exemplars (Scott, 2016).

Following the points below will help you to ensure that you construct a robust rubric:

- Where possible, review exemplars of students' work on similar tasks that have been through a similar marking-feedback process (Dawson, 2017).

- Try to use terminology that is common or widespread throughout the Program to help students develop a disciplinary vocabulary and a sense of consistency across Courses.

- Each assessment standard should indicate what is different from one level to the next. By using the

descriptors typical of students' work according to the taxonomies (e.g. SOLO, Bloom or Miller), educators and students will be provided with:

- o Clear statements that illustrate the difference in the level of students' work at a certain grade/mark; and

- o Clear statements that distinguish between the levels of achievement.

- The University of Notre Dames' Academic Integrity (AI) Rubric is an example of the application of this principle in practice. For more information on this, access the AI micro-module here.

- Avoid using words that are subjective such as 'creative' or 'good' as they are so vague that they become valueless in terms of their ability to guide a student (Moskal, 2000).

As with criteria, collaborating with students in the development of standards and descriptors is an excellent way to identify and correct misunderstandings or misconceptions regarding what it is that the students should be learning and how they can best demonstrate that they have met the learning objectives of each assessment task and the Course as a whole.

Rubrics are an iterative process:
Remember to review, moderate and revise your rubric

Various processes can be used to validate and/or test the reliability of the rubric. The most obvious indicator that a rubric is reliable occurs when multiple markers arrive at similar marks for the same piece of student work (Timmerman, Strickland, Johnson and Payne, 2010).

To promote the reliability and validity of a marking rubric throughout the process of construction, it is useful to:

- Consult existing rubrics;

- Compare authentic criteria used to judge similar tasks;

- Have discussions with colleagues in your School or associated disciplines; and

- Consult pedagogical experts (such as the University of Notre Dame, Australia's LTO Academic Developers) (Dawson, 2017).

It is also important to iteratively refine criteria based on student feedback and performance after a marking rubric has been used to assess student achievement (Dawson, 2017). See for example, the research by Timmerman et al. (2010) who developed their rubric over a three-year period to enhance its reliability. When using online rubrics available in Turnitin, it is possible to analyse student performance on criteria. This data can be used to inform future curriculum design considerations such as the design and method of assessment, and the clarity of the task description and marking criteria and standards.

Further information

The LTO has developed a Designing Marking Rubrics Micromodule (available shortly) which is designed for you to take a deeper dive into the theoretical aspects of rubric design and test your knowledge through a series of activities.

If you are also interested in increasing your knowledge and understanding of the application of these theoretical frameworks to assessment principles and practices in higher education, please enrol in EDUC5117 Principles and Practices in Assessment and Evaluation in the Graduate Certificate in Learning and Teaching for Higher Education.

Useful sites containing rubrics which you can build on

1. Look at these rubrics developed by the Association of American Colleges & Universities (AAC&U): VALUE rubrics (Valid Assessment of Learning in Undergraduate Education) These 16 rubrics assess the learning outcomes which the AAC&U identified as essential for a liberal education in any field from bachelor's to master's level. Try to find which one of the 16 outcomes your task primarily focusses on.

2. The rubrics on The Australian Learning and Teaching Council (2010) webpage offer a good starting point: http://www.graduateskills.edu.au/wp-content/uploads/2010/08/GraduateSkills_Standards_Collated.pdf

3. The University of Tasmania examples of how descriptors can be constructed: https://www.teaching-learning.utas.edu.au/__data/assets/word_doc/0011/51302/how-to-write-criteria-sheets-v9-worksp.doc

4. See this comprehensive bank of descriptors from Charles Sturt University, sorted according to the verb (or action) being assessed and listed alphabetically from 'apply' to 'synthesise': https://www.csu.edu.au/division/learning-and-teaching/home/assessment-and-moderation/assessment-resources-and-information/example-rubrics

References

Ajjawi, R., Tai, J., Dawson, P., & Boud, D. (2018). Conceptualising evaluative judgement for sustainable assessment in higher education. In D. Boud, R. Ajjawi, P. Dawson & J. Tai (Eds.), *Developing Evaluative Judgement in Higher Education* (pp. 23-33). Oxfordshire: Routledge. Retrieved May 7, 2020, from https://ebookcentral.proquest.com

Carless, D. (2015). Excellence in university assessment: Learning from award-winning practice. London: Routledge. Retrieved May 7, 2020, from https://ebookcentral.proquest.com

Dawson, P. (2017). Assessment rubrics: Towards clearer and more replicable design, research, and practice. *Assessment & Evaluation in Higher Education, 42*(3), 347–360. doi:10.1080/02602938.2015.1111294

Dennison, R.D., Rosselli, J., & Dempsey, A. (2015). *Evaluation beyond exams in nursing education: Designing assignments and evaluating with rubrics*. New York: Springer Publishing Company. Retrieved May 7, 2020, from https://ebookcentral.proquest.com

Moskal, B. M. (2000). Scoring rubrics: What, when and how? *Practical Assessment, Research & Evaluation, 7*(3). Retrieved 7 May, 2020, from: https://scholarworks.umass.edu/pare/vol7/iss1/3

Sadler, D.R. (2005) Interpretations of criteria-based assessment and grading in higher education *Assessment & evaluation in higher education, 30*(2), 175-194. doi:10.1080/0260293042000264262

Scott, G. (2016). *Powerful Assessment Exemplars*. Retrieved May 7, 2020, from http://flipcurric.edu.au/resources-references/powerful-assessment-exemplars

Tai, J., Ajjawi, R., Boud, D., Dawson, P., & Pandero, E. (2018). Developing evaluative judgement: Enabling students to make decisions about the quality of work. *Higher Education*, *76*(3), 467–481. doi:10.1007/s10734-017-0220-3

Timmerman, B. E. C., Strickland, D.C., Johnson, R. L. & Payne, J.R. (2010). Development of a 'universal' rubric for assessing undergraduates' scientific reasoning skills using scientific writing. *Assessment & Evaluation in Higher Education, 36*(5), 509–547. doi:10.1080/02602930903540991