Assessment
A good practice guide

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Section One - Background

What is assessment?
Assessment is an evaluative process that samples student learning and infers achievement. In this process we determine the object(s) to be measured, create the measurement instrument(s), and interpret the results of that measurement (Ebel, 1972).

Assessment informs judgement. It is used by students and teachers to judge progress, by the institution to judge achievement and by society (and employers) to judge capability. Flawed assessment practices result in flawed judgements.

Engagement in the process of evaluating work and providing constructive feedback develops individuals’ capacity to define and improve the quality of their own work and the work of others (Boud, Cohen & Sampson, 1999; Liu & Carless, 2006).

1. Assessment defines academic standards.
2. Assessment is an evaluative process that samples student learning and infers achievement.
3. Assessment has a powerful influence on student learning.
4. Engagement in the process of evaluating work and providing constructive feedback develops individuals’ capacity to define and improve the quality of their own work and the work of others.

When the evidence gathered through assessment is interpreted for the purpose of certifying achievement we refer to it as summative assessment, whereas evidence interpreted for the purpose of guiding learning is formative.

Key components of assessment

1. Learning outcome
   A measurable learning outcome(s) to be assessed.

2. Task
   A task (that will elicit the response that will provide the evidence required).

3. Response format
   A response format (such as essay, group project, multiple choice, or oral presentation). Try to use a range of formats, particularly for high-stakes summative assessments, and consider whether discomfort with the format may affect student performance, and what can be done to ameliorate that.

4. Evaluation system
   Evaluation may be in relation to other candidates (norm-referenced), in relation to standards (standards referenced), or in relation to own previous performance (ipsative). All have their place and can be used to improve learning and determine achievement.

These key components combine to form an observational frame of reference (a window through which we view student performance and infer achievement). The trick is to design a frame of reference that will result in intended observations (and not others) being made, and to ensure consistency of observations, particularly where results are to be interpreted for certification purposes.
Fundamental principles of assessment at ECU

When creating an assessment task that has as its primary focus the goal of supporting student learning, yet will also be used for grading, there are five elements to consider. These elements are outlined in the ECU Assessment policy which states that assessment tasks need to be:

- Valid;
- Educative;
- Explicit;
- Fair; and
- Comprehensive.

Valid

Assessment tasks should seek to provide the maximum opportunity for students to fully demonstrate a specific outcome and should seek to measure only that given outcome.

Example:

In a Business unit, the Unit Coordinator has been looking for ways to help students fully grasp and demonstrate their understandings of the complexities of working with a company. Previously he had created several small “mini-quizzes” that students needed to complete in-class. These were then collected, marked and students received an overall grade. To replace this, the Unit Coordinator has created a series of case studies that represent a real life problem faced by a company - eg. How the death of a CEO impacts the company. To address each one requires the same knowledge as was demonstrated through the mini quizzes, but now students need to integrate a number of different aspects of the unit to be able to demonstrate an understanding of the complexities of company life and their role within that. Students create an action plan and outline a justification for their choices. This is then used to create a tutorial presentation, with peers reviewing the action plan as though board members- questioning and providing feedback to the student. At the same time, the tutor marks the students against criteria set for the presentation. The mark, the tutor’s feedback and the comments from the students are all provided to the presenter immediately. The student then uses this to refine their action plan which is submitted later for marking.

Educative

The assessment task should support student learning and provide feedback that allows students to progress.

Example:

In a Law unit, students are required to write an essay. Normally the tutor receives these and provides written feedback on an evaluation sheet, which the students collect with their essays. The Unit Coordinator is looking for ways to ensure students engage more with the feedback and take the time to read and comprehend it. The Unit Coordinator now asks students to complete the essay for formative feedback and upon return to the students they are provided with feedback. Students are then provided the opportunity to access additional marks by submitting a paragraph comparing their original essay with the new version, indicating in specific terms how they used the feedback given to improve the quality of their work.

Explicit

The purpose and criteria for the assessment should be made transparent.

Example:

A Unit Coordinator has found that despite giving clear instructions in the Unit Outline about a major assessment, students were complaining that they were unsure about what they were required to do. This led to frustration on both the part of the students and the academic staff. To help overcome this, students were
asked to read the assessment task and go online to a Discussion Board set up within Blackboard to discuss the assessment. Here the Unit Coordinator had set up a FAQ section that further clarified aspects of the assignment students had previously struggled with. Students were also given the opportunity to ask questions about the assignment, or respond to questions if they were sure of the answer. The Unit Coordinator oversaw the information on the DB and this prevented students coming in individually and also pre-empted complaints.

**Fair**

Tasks should be designed so that all students are equally able to demonstrate their learning. It is only the result of the assessment that should differentiate students’ ability.

*Example:*

A lecturer in Security Operations has a unit for students who are online. Most of the students are located in Perth but some of these students are international and some are in remote locations. To help avoid any unfair bias, the lecturer creates an assessment that asks students to analyse the security needs for a large international event. Rather than using a local context, the lecturer uses an internationally known event that students are familiar with, and yet avoids any specific localisation that may place one student at an unfair advantage.

**Comprehensive**

Assessment tasks should work together to provide a holistic picture of the students’ understanding.

*Example:*

A Fine Arts unit that relied on an essay for students to demonstrate their understanding of different design movement, moved to three smaller tasks that combined to give an overall idea of the students’ learning. Rather than produce the essay, students were now asked to create a poster and present this to the class in a five minute oral presentation. The presentations were marked as the students were talking, and the posters were placed around the room for students to review and reflect upon. The final aspect of this task was for students to compare their poster with the poster that they felt was the best, and write a short comparison between the two.

**Summary**

From semester 1 first year, students are already engaging with their future profession (as is the case with student teachers, student nurses) and we can develop this further by making sure assessment tasks are explicitly connected to the student’s future in that career. Assessment for learning is about using assessment tasks to connect students with discipline knowledge in a way that improves their learning. The more we consider and promote assessment as a tool for guiding and engaging students in their learning as much as a tool for us to be able to make judgments, the more students will begin to value assessment as part of their learning and not simply something they have to do to get their degree.

**Authentic assessment**

At ECU we use the word ‘authentic’ in the sense of ‘real-world’ assessment. Authentic assessment engages students in tasks that have real-world relevance. The authentic assessment process reflects real-world evaluation processes and uses criteria that reflect real-world evaluation criteria.

Authentic assessment tasks engage students in authentic learning by presenting them with a problem worth solving that is often ill-defined and requires sustained investigation, collaboration and reflection using multiple sources and perspectives. Authentic assessment engages students in learning to be (a physicist, an accountant, a nurse) rather than only learning about (physics, accounting, nursing).
Illustration: What is Indigenous Engineering?

Did you know that Indigenous Australians led the world in the invention of some familiar everyday technologies and engineering designs? They were the first people to use ground edges on stone cutting tools, and to use these tools to grind seeds. Other societies discovered and developed these tools much later in their evolution.

Working in pairs/teams, make a 5-minute video demonstrating a physics or engineering aspect of an Aboriginal invention, for example:

- a boomerang
- a woomera
- grinding tools
- one of the many inventions of David Unaipon
- fish traps
- watercraft

In your video discuss the contribution these inventions or everyday objects may have had on contemporary engineering and if you can, talk about the people (nation) who developed them.

What outcomes are assessed?

Both examples can assess higher-order learning outcomes. Example 1 provides opportunities to analyse, synthesise, theorise, generalise, and evaluate Engineering knowledge in an academic context. The second example promotes information literacy, problem solving, synthesis of new and old technologies, understanding of basic Indigenous problem solving, communication skills and teamwork.

How authentic is the task?

Example 1 uses a local civil engineering project as the theme for investigation. This level of real-world problem study makes the assignment very authentic. Another measure of authenticity is in the usefulness of the project, not to the teacher, but to the learners themselves.

Example 2 demonstrates the creation of a very useful and assessable learning object which will demonstrate the valuable place of Aboriginal culture in world history. Students will learn to gather information, create a concise communication piece and then share the information. These videos can also be used by subsequent classes as learning tools.

What kind of learning is promoted?

Both methods encourage active learning where students are not mere receivers of knowledge. Instead, they are involved in the construction of knowledge. Both examples use principles of problem based learning, student centred learning, and conform to the ECU ideal of embedding Indigenous Cultural literacies.

Before handing out your task, check that you have:

- described the authentic context and format;
- indicated special instructions, such as a particular citation style or headings;
- specified the due date and the consequences for missing it;
- articulated evaluation criteria clearly;
- checked interpretation of the marking guide with others;
- indicated the assignment’s point value or percentage of the unit mark; and
- provided students (where appropriate) with models or samples.

After the task has been completed, check for validity and reliability:
Maryellen Weimer on authentic assessment

**Authentic Assignments: What Are They?**

Written by: Maryellen Weimer, Ph.D.
Published On: December 14, 2012

“I’ve heard several faculty mention the need for authentic assignments ... what are they?” I received that question recently in an email, and it is true that the combination of the two words has come to mean something more than what might be assumed by their association.

One of the best answers to the what-are-they question appears in a classic text—Understanding by Design (Wiggins & McTighe, 2006). This is the text that lays out the principles of backward design—meaning you start with where you want to end and design assignments, activities, courses, and curricula working back from this final destination.

Authors Grant Wiggins and Jay McTighe propose that a learning task (be it an assignment or activity) is authentic when it has the following six characteristics:

1. **It is realistically contextualized.** This means whatever it is you are asking students to do is set in a scenario that replicates or simulates the ways in which students will be asked for their knowledge or skill in real-world situations.
2. **It requires judgment and innovation.** The assignment has students using their knowledge and skills to solve problems that are unstructured. Rather than testing a discrete piece of knowledge, an authentic activity challenges learners to figure out the nature of the problem as well as a possible solution to it.
3. **It asks the student to “do” the subject.** In an authentic assignment students are not reciting, restating, or replicating what has been learned but are using their knowledge as a professional in the field would use it. They are doing science, literary criticism, teamwork, or whatever else—probably not as well as an experienced professional, but as a novice would.
4. **It replicates key challenging situations in which adults are truly “tested” in the workplace, in civic life, and in personal life.** Most professionals face situations that are “messy.” The problems are not like those often seen in classrooms, where the lack of “noise” makes the way to the “right” answer easier to figure out. “Students need to experience what it is like to perform tasks like those in the workplace and other real-life contexts, which tend to be complex and messy.” (p. 154)
5. **It assesses the student’s ability to efficiently and effectively use a repertoire of knowledge and skills to negotiate a complex and multistage task.** Most test questions ask for isolated pieces of information. But when professionals use knowledge and skills, they don’t use bits of information or one skill; they summon a collection of both, which they must integrate and use as a coherent whole. An authentic assignment is not like a drill used in practice but is more like playing the game.
6. **It allows appropriate opportunities to rehearse, practice, consult resources, and get feedback on and refine performances and products.** The idea here is that of the apprenticeship model in which learning is based on a perform-feedback-revise-perform cycle. An authentic assignment is one students complete in stages. They get feedback along the way and are expected to make changes as their work continues.

As this description makes clear, authentic assignments and activities aren’t those quick and easy things we might dream up on the way to class or that appear in the instructor’s manual that comes with the text. They must be carefully designed,
they take time for students to complete, and they require effort to assess. What makes them worthwhile is the kinds of learning experiences they promote. Students quickly figure out that these assignments are difficult, can’t be completed without lots of hard work, and require them to use what they are learning in situations like those they will encounter after college. Usually that motivates their wholehearted participation in these tasks.

Wiggins and McTighe say that the success of authentic assignments and activities rests on the understanding of two important facts. First, you can’t design authentic assignments unless you know how adults use (or don’t use) the knowledge and skills that are being taught in school. And second, you must help students understand how various assignments and activities contribute to the learning process. Not every assignment can be an authentic one, but even those that aren’t promote learning. It’s the same for the athlete or musician who must do some practice routines that aren’t fun and may seem pointless. They, too, are part of the preparation for performance.

Dan Driscoll on creating authentic assignments

How I create meaningful, authentic assignments for my students/curriculum

Written by: Dan Driscoll, Drexel University
Available at: https://community.waypointoutcomes.com/entries/20242182-How-can-I-create-meaningful-authentic-assignments-for-my-students-curriculum-

A good approach to creating authentic assessments can be to begin by thinking between the course material (the topics and concepts, the information and skills students hope to learn) and the reason(s) for learning the material... what will the students do with -- or because -- of the learning in the class? How will they do it, why, and in what contexts?

I’m involved in the writing programs at Drexel, and get to talk to faculty across the curriculum and the writing their students do, so I tend think of Andrew’s question in terms of “what makes a good writing assignment.” There are other ways of approaching it, and other contexts in which a question like this needs to be considered, but I’ll start with an example of how I think through the question in the context of a particular class.

In a persuasive writing course, I might want to teach a basic vocabulary (terms related to argument and writing), help students find and use evidence logically in arguments, and practice different forms of argument. I can do this in a fairly dry or hermetic way, in which the reason for doing these is the class itself: in order to earn a good grade, students must please me by learning the terms (I can test them), basing their arguments on research (evaluate them based on their use of research), and adhering to the forms of arguments I teach (I can evaluate them also on their ability to structure an Aristotelian argument, a Rogerian argument).

I learned well in classes like this, and many of my students are able to learn well in classes like this. But many students will see it as a game in which they are learning to please or placate me, and some will be tempted to put less/time and work into it and instead use that time for work in classes and on assignments that they more easily see as directly connected to what they hope to do after college. Even students who are good at doing the work for the sake of doing the work may miss out on how the learning in this class is important and will be applied in other contexts.

If I think about why (aside from for the sake of learning) that I want my students to learn about argument and develop skills in writing arguments, and where/how these skills will be useful and important, I can add more meaningful, authentic assessments (in writing classes, this is actually really easy). So I think about how argument is...

...a tool of academic writing
...a way of engaging in important and difficult problems, of investigating problems
...a way of creating new knowledge in a discourse community
...a way of making yourself understood, and a way of understanding others
...a form of civic dialogue and means of advocacy (for self and others).

And then I can begin to shape assignments that ask students to practice and apply the things we learn in the class in meaningful ways -- i.e. ways that simulate or draw on the very real uses for argument. In writing, audience and purpose are key components of authentic assignments, so by giving my students real-world purposes and asking them to write to
(theoretically) real audiences, I’m able to provide them with a more authentic writing situation (and can therefore assess their abilities and give feedback in a more meaningful way).

For example, students might have to identify a problem in our campus community, research causes of the problem, and determine and argue for a solution or course of action. In addition, they need to decide who the most appropriate audience for their argument is, and what the most appropriate form of delivery is.

Instead of arguing abstractly about an issue (there may be no worse and less consequential reading than the contextless recitation of three reasons why people shouldn’t be able to own guns, or why the drinking age should be lowered), students investigate problems in a real-world context (a community that they are themselves a part of), make decisions about argumentative strategies and the effectiveness of evidence based on real audiences (in many cases, students are able to interview or engage their audiences in conversation), and then create something that could actually be seen by these audiences (they might create a pamphlet to be handed out to new students, a letter to the administration, a website).

As they do this, students are able to learn and practice the class material in authentic ways, and I am better able to assess and give feedback on important skills -- and not only did they write well and use evidence in a logical way, but also how creative were they in developing a researching a topic? were they able to show how their more abstract or theoretical understanding of argument helped them in their process of creating a real argument? did an understanding of audience and situational constraints help them make good decisions in their argument and in their presentation of it?

Developing an assignment like this, of course, then might change the way I teach the class. I will still use traditional or “non-authentic” assessments and practices (I might lecture about argument models and how they apply to rhetorical situations, and then quiz students about the basic terms and concepts they need to know in order to do well in the more complex, authentic assignments), but as I consider some skills demanded in the authentic assignment, I may add to or modify my curriculum and teaching to make sure I support students’ work toward the assignment (for example, we might work on researching audience, or spend more time talking about considerations of document design).

By thinking about practical applications for the learning in my class, and then designing tasks that explore students to some of these practical applications, I’m able to have students practice and demonstrate their abilities in more significant ways. The end result is more varied and interesting work produced by students, which gives me a better understanding of how much they are learning and are able to apply in meaningful ways -- i.e. authentic assignments can be good way of testing and assessing what students really learn (or are able to do), and they also help to communicate to students how and why the work we ask them to do is important.
Practical and performance assessment

Practical assessment tasks are performance based. They can be used to test a variety of learning outcomes and processes, but are always aimed at forming a judgement in an authentic context.

How do practical assessments relate to academic work?

All students construct meaning. One purpose of university education is to improve the quality of the meanings our students construct. Assessment for learning, which can be done through practical assessments, can assist in this process, but must be grounded in rigorous intellectual standards. It is important for learning that student participation in authentic/practical activities does not become an end in itself, but rather an opportunity to demonstrate authentic intellectual achievement.

Experts such as successful scientists, mathematicians, musicians, attorneys, writers, nurses, designers all demonstrate the following characteristics when exhibiting their craft:

1. construction of knowledge;
2. disciplined inquiry; and
3. value beyond the classroom (beyond documenting competence for reporting).

All three are necessary for demonstration of authentic intellectual achievement. For example, a student may write a letter to the editor in opposition to a newly proposed social welfare plan. This letter may meet the criteria of constructing knowledge to produce discourse with value beyond the unit, but if it contains significant errors or shows only shallow understanding of the issues, it lacks disciplined inquiry.

Do your practical assessments require construction of knowledge through disciplined inquiry to produce discourse, products, or performance that have value beyond success in a unit? Not all teaching and assessment activities can meet all three criteria all of the time. The point is to keep authentic intellectual achievement clearly in view as the valued end. When we do this, classroom instruction will be characterised by:

- student engagement in higher order thinking (manipulating information and ideas by synthesising, generalising, explaining, hypothesising);
- substantive conversations and deep knowledge leading to complex understandings; and
- connection to the world beyond the classroom.

Good practical assessment tasks will require:

- organisation, synthesis, interpretation, or evaluation of complex information in addressing a concept, problem, or issue;
- consideration of alternatives, understanding and use of ideas, theories, or perspectives central to the discipline;
- use of methods of inquiry characteristic of the discipline to address a concept or problem connected to life beyond the classroom; and
- communication to an audience beyond the lecturer.

Brief illustrations of practical and performance assessments

1. Art students do artwork on calico about what they have learned, and then write about it so they get used to tying together images and relationships. They run a community workshop at the local library about their work.

2. Environmental studies students assess the water quality of a lake, write a report and send it in to the local town council.
3. Education students complete a teaching practice in a primary school where their teaching skills are assessed.

4. Society and environment students collect and document what life was like during major recent historical periods by visiting aged care facilities, nursing homes and veterans hospitals. Accounts are published in various formats.

5. Business students work with local community organisations to run workshops on household finances and budgeting.

6. Business students assist not-for-profit organisations with fund-raising efforts (grant writing, investments, budgeting).

7. Art students collaborate with marketing students to create promotional literature for a not-for-profit organisation.

8. Health students conduct workshops at retirement villages on “What’s happening to my body, and what can I do about it?” In this way students learn about the particular nutritional needs of the elderly and physical changes they are going through.

9. Management students analyse and evaluate the functioning of not-for-profit organisations and prepare reports for the organisations.

10. Science and engineering students offer opportunities for high school students to attend an orientation to engineering and other scientific and technical work.

11. Computing students design personalised software for local not-for-profit organisations to better manage volunteers, resources, finances, or inventories.

12. Maths and science education students develop lesson plans for delivery to final year high school students.

13. Writing students generate folklore of an area and seek to get it published.

14. Science students conduct an energy survey and make recommendations for energy saving in businesses, homes, schools.

Many assessments, including authentic and practical assessment tasks, can be used for both formative (Assessment FOR Learning) and summative (Assessment OF Learning) purposes.
Summative assessment: Assessment OF learning

This is assessment designed to measure learning for certification. The ECU Assessment Policy emphasises the importance of ensuring both validity and reliability of assessment practice, and direct linkage to stated unit learning outcomes. The Policy also states that assessment OF learning must be on the basis of performance against stated criteria, with standards of performance defined for each criterion. This is different from norm-referencing, where student performances are ranked in relation to other students.

In instances where there is more than one marker in a unit, the ECU Moderation Policy and guidelines must be applied. The policy specifies that the unit coordinator should provide all markers with a sample marking experience for each assessment to develop a shared understanding of the marking criteria and standards, as well as comprehensive marking keys for each assessment showing marks allocations.

Where examinations are one of the assessment types used, the Submission of Examination Papers Policy must be complied with. Particular attention should be paid to ensuring that examinations are based on the learning outcomes and content described in the approved unit outline.

Ideas for improving assessment OF learning

Clearly define the construct to be measured

The construct refers to the goal of the assessment: what are you trying to assess. You may be trying to measure knowledge, skills or attributes, or a combination of these. Your unit learning outcomes will guide this decision.

If you are measuring knowledge, consider whether that knowledge is:

- Declarative (knowing facts, definitions, classifications);
- Procedural (knowing how to apply algorithms, techniques, methods);
- Schematic (knowing why, understanding theories, organising information, connecting ideas, applying principles, providing explanations, predicting outcomes); or
- Strategic (knowing when, where, and how knowledge applies). Authentic, problem-based environments require strategic knowledge to define the problem, plan an approach, and research and consider alternatives before proposing a solution.

If you are measuring skills these may be specific to the domain or discipline, or may be broad enough to be cross-functional, such as problem-solving, critical appraisal or communication. Attributes relate to values or dispositions such as persistence, self-management, or motivation to improve. Ipsative assessment (evaluation against own previous performance) is particularly useful in this regard.

Develop the task and the marking guide/rubric concurrently

The development of any assessment instrument is an iterative process. Initial drafting of the assessment should be followed by a check to ensure alignment with learning outcomes. If you can find a colleague to review the task draft this can clarify areas that may be in your head rather than on the paper! If marking guides and/or model answers are developed at the same time as the task as these may also highlight deficiencies in the task instructions.

A good marking guide will:

- Identify ‘the best’ performance that students may demonstrate on the task.
- Identify the performance criteria that will be assessed in the task (typically more than one).
- Identify the number of categories between ‘the best’ performance and ‘the weakest’ performance on each criterion. There may be more categories for some criteria than others, for example “referencing”
may only discriminate between two levels of performance whereas “explains (the concept)” may have four or even five performance categories.

- Allocate marks that reflect the relative importance of each criterion.

**Revise the marking guide**

After the task has been administered and student responses received it may be appropriate to again revise the marking guide, and perhaps to adjust the task for future use. Consider whether extraneous factors have affected student performance and what can be done to reduce the impact of those factors in the future. For example, your task may have had an unintended cultural or gender bias, or it may require a response in a format that students are not familiar with.
**Formative assessment: Assessment FOR learning**

This is assessment designed to enhance learning. It includes assessment as a learning opportunity in itself, as well as the diagnostic use of the results of assessment tasks. A characteristic of assessment FOR learning is the focus on learning rather than grading/certification of achievement. Information generated by the assessment activity is used by the teacher, and/or by students, to guide future learning. Assessment FOR learning is a principle of the ECU Undergraduate Curriculum Framework. The Framework emphasises the importance of assessment FOR learning, using authentic activities, identifying it as one of the *Nine Key Qualities of our undergraduate curriculum.*

**Ideas for improving assessment FOR learning**

What strategies can we use to help students learn FROM and DURING assessments, not just FOR assessment events?

**Improve feedback**

Feedback (that gives information, not marks/grades) has an effect size of .81 on learning (Hattie, 2005). Make your feedback more efficient by giving generic feedback on commonly occurring areas of deficiency. Involving the whole class in discussions about how deficiencies can be addressed will ensure active engagement with the feedback.

**Require responses to feedback**

Sometimes the student may respond by explaining why the feedback was ignored. You may wish to allocate marks to responses, or refusing to accept assignments that have not been peer reviewed.

**Require student engagement in self and peer evaluation of work**

- Teach students how to provide descriptive rather than judgmental feedback on drafts of work, both their own work and that of others.
- Acknowledge the value of high quality feedback (perhaps by allocating marks to the feedback).
- Require responses to feedback (even if the response is to explain why the feedback was ignored).

**Clarify criteria and standards of performance**

Ensure that learning outcomes are observable and that the nature of evidence required is clear. Students (and staff) need to know what they need to do/produce in order to demonstrate achievement of the outcome to an acceptable standard.

**Facilitate opportunities for dialogue around standards**

Involve students in evaluating work samples and discussing the extent to which they meet desired standards, as well as how they could be improved.

**Design authentic tasks**

Use a real life problem that requires collaborative construction of knowledge, or an investigation requiring multiple sources to make a prediction.

**Encourage students to assess their own understanding**

Ways in which this could be done include construction of concept maps, minute papers, one-sentence summaries or newspaper headlines.
Encourage students to apply their understanding

Examples of how to do this include problem-solving activities or student generated test questions. These activities work particularly well in pairs or small groups.

Assist students to connect principles/theory to practice

Suggestions here include using application cards, a “What’s the principle?” class quiz/discussion, or problem recognition tasks (identifying the type of problem the example represents).

Use technologies that facilitate interaction and decision-making

Students who anticipate that they will have to respond to individual or group questions posed in class are more likely to remain alert and engaged. Technologies can facilitate instant displaying of results.

Use in-class strategies that encourage students to assess their understanding

Examples of such strategies include:

1. **Minute papers**
   Students are asked to take one or two minutes to respond to the following two questions:
   
   - What was the most important thing you learned during this session?
   - What important question remains unanswered?

   Comments from the students can be used as an opening activity or discussion item for the next session.

2. **Concept Maps**
   Students draw or construct a diagram to illustrate the connections between a major lecture’s concept and other concepts that the students already know. The strategy can be varied by getting them to construct individual concept maps, then compare and discuss, or collaborating to construct a joint concept map on the whiteboard.

   - **Memory Matrix**
     The matrix is a two-dimensional diagram, a rectangle divided into rows and columns used to organize information and illustrate relationships. Provide the row and column headings.

   - **PMI table**
     In this activity students organise their thoughts about a topic under Plus, Minus, or Interesting. This can be a useful precursor to a Decision Matrix, or can trigger further conversations and investigation, particularly where disagreement about classifications arises.

   - **Decision Matrix**

   - **One Sentence Summary/Newspaper Headline**
     Students are asked to synthesize a lecture or topic into a single informative summary sentence. This activity can be expanded by asking students to write the article that would accompany the headline, or to write an abstract summarising what they have learned.

   - **Application Cards**
     After students have dealt with an important principle, generalisation, theory or procedure, hand out an index card and asks them to write down at least one possible, real-world application for what they have learned. We often “think” we understand until we have to actually apply! Share and discuss.

   - **Problem Solving**
     - **Problem Recognition Tasks**
       The students’ task is to recognise and identify the particular type of problem each example represents. Identifying the problem type is a significant hurdle for many students.
What’s the Principle?
This assesses students’ ability to associate specific problems with the general principles used to solve them. This focus is on the general principle and not the precise individual steps taken to solve the problem.

Documented Problem Solutions
Students are asked to identify the specific steps taken to solve the problem. By analysing these detailed protocols, students can identify other ways to solve a problem.

Paired Problem Solving
Have students work on the same problems and compare methods and results. You will be amazed at the different approaches students will take. Paired problem solving also avoids one student being put on the spot and causing embarrassment.

Student Generated Test Questions
Students are asked to generate possible test/examination questions. Using a Think-Pair-Share activity to generate the questions. They then vote on the best question (or two or three) and work collaboratively to generate a model answer. Encourage higher order questions such as "What contributed to," "What are the causes and effects," "What would happen if ...”.

Work on Vocabulary and Terminology
When introducing new terminology, ask students to write definitions in their own words, or to use the new words appropriately in a context.

Pose questions that require individual response from whole class
Use technologies to facilitate instant responses to class questions, such as Google Voice or Clickers, with results instantly displayed for discussion. http://iclicker.com/dnn/UserCommunity/BestPracticesTips/tabid/169/Default.aspx
Importance and value of assessment

While students can, with difficulty, escape from the effects of poor teaching, they cannot (by definition if they want to graduate) escape the effects of poor assessment. (Boud, 1995, p. 35)

Assessment defines the curriculum (in its broadest sense – including what is taught, how it is taught and what students learn) because it defines what will be rewarded. Assessment also defines academic standards and is used to certify student achievement.

The quality of our assessment practices ultimately defines the quality of our graduates. Students who are actively engaged in assessment for learning ultimately demonstrate higher academic achievement (Black and Wiliam, 1998).

Assessment is a powerful educational tool. It
- helps students see their own progress;
- enables teachers to monitor students and themselves;
- expresses what systems take to be important; and
- can drive (curriculum) reform (McGaw, 2008).

What are the benefits of improving assessment practice?

For students

Students who are actively engaged in clear and transparent assessment processes that are strongly aligned to learning outcomes, demonstrate better understanding of the purpose of tasks, can relate them to personal learning goals, and become more confident judges of their own work. This encourages them to take more learning risks, be more innovative in their learning, monitor their own success and make decisions that bring greater success. This is the foundation of lifelong learning.

For teachers

Teachers benefit because better assessment tasks lead to a more collaborative classroom atmosphere and consequently less conflict and confusion. Challenges to marks and grades can be greatly reduced. In addition, assessment is a cost-effective way to improve learning. Formative assessment experiments produce effect sizes of .40 - .70, larger than found for most educational interventions (Black and Wiliam, 1998). (Effect size is the difference in means between treatment and control groups, divided by the pooled standard deviation of the two groups.)

For the institution

The institution benefits by meeting accountability standards, and gaining public recognition for doing so. Academic standards are protected and academic performance is raised.

Students who have become self-motivated, independent learners are more likely to engage in post-graduate study and research – benefitting the individual, the university and the broader community.

A Student Response to a New Assessment Approach

A lecturer created a project assignment for students in which they would ultimately produce a product which would be "ready to use" in a workplace. This was quite a new approach for this cohort of students. A detailed marking rubric was provided, along with examples of open-ended inquiry questions that would assist in producing the product. Students groups were formed based on individuals with complementary skills like
someone good at writing, good with technology and good at reviewing. A supporting blog was established on Blackboard.

It was hoped that all these support structures would make it possible for students to be less reliant on the lecturer/tutors, thus developing their ability to be independent learners.

After a lecture, one student (let’s call her Tina) approached the lecturer with her assignment draft, wanting to know "if she is doing it right". The lecturer declined to look at the draft, suggesting that the student consult her group in the first instance. However, the lecturer did re-iterate the general guidelines for the project.

Tina then emailed her tutor, saying that the lecturer had said her inquiry questions may not be suitable. She asked the tutor to check if she was doing it right. The tutor referred the enquiry to the lecturer. The lecturer said that she needed to access the support structure provided first the group, the blog, the guidelines. The next day the lecturer received another long email from Tina containing an extract of her assignment and demanding that she be told if she was right. The lecturer apologised for not providing a definitive answer, but instead provided a series of questions that were designed to help Tina form her own judgement about the suitability of her work. The tutor was copied into the email.

*Often when we change the assessment rules we begin to change student behaviour. In the example above the behaviour had to change from teacher-pleasing to more authentic and personal learning. This was a change in the rules of the game which was difficult for “Tina”.*
Useful websites

Funded by an ALTC grant, this website offers a conceptual framework for assessment based on the premise that, whatever else it does, assessment must support learning. It offers guidance on designing assessment and contains examples by subject area that are continually being added to.

The Centre for the Study of Higher Education (CSHE) was commissioned by the Australian Universities Teaching Committee to develop this website to support high quality assessment practices. It contains practical guides to assessment challenges such as large classes and group work, and a directory of examples that can be searched by subject or discipline.

Re-engineering Assessment Practices in Higher Education - http://www.reap.ac.uk/
This website provides a framework for rethinking assessment and feedback practices, as well as a range of practical ideas for effective monitoring and evaluation of student progress. It provides examples of assessment and feedback redesign across a range of large first year classes in different disciplines using technology. REAP incorporates PEER, a project investigating which models of student peer evaluation/feedback best help students develop disciplinary expertise and the ability to evaluate the quality of their own and other's work.

Assessment Standards Knowledge Exchange - http://www.brookes.ac.uk/aske/
One of the gems on this website is a series of ‘1,2,3’ leaflets which highlight some practical ways in which teaching staff can improve their students’ learning. Each leaflet focuses on a piece of assessment-related research and clearly states how that research can be applied to teaching practice in three easy steps.
References


Section Two – How To Do It

What are the key considerations when designing assessment tasks?

1. The purpose of the assessment.
   Think about what decisions you are going to make, and what information you need to gather to make those decisions.

2. The validity and reliability of the assessment.
   Can appropriate inferences be drawn? Does it yield similar results over time with similar populations in similar circumstances?

3. The referencing of the assessment.
   Is it norm-referenced (against other candidates), criterion-referenced (using clearly defined criteria and standards of performance), or ipsative (compared against candidates’ own previous performances)?

4. The extent to which the assessment is required to discriminate between levels of performance. How fine-grained does that discrimination need to be? Discrimination is necessary for grading.

5. The extent to which the assessment is likely to engage students in desired learning.
   Authentic work around important questions/issues within the discipline and beyond is more engaging for students (and staff).

Designing with feedback in mind

For each assessment task decide how feedback will be given:

- Can the task be designed with two stages so that students can get (and perhaps give) feedback on drafts?
- Think through what form the feedback takes. Will it be written or verbal (perhaps recorded). Will it include students’ self and peer feedback? Will it include general feedback directed at the whole class?
- Decide how feedback will be used, by students and by the lecturer.
- It is worth noting that the clearer the criteria are for an assignment, the less likely it should be that students need to question feedback.

Example 1

Immediate feedback can be provided in-class for oral presentations, demonstrations, posters, role-plays or debates. Alternative methods of feedback provision might include use of email, audio feedback (MP3) or online conferences. Information about what to do with feedback, or how to interpret feedback might also be posted on Blackboard for students to read prior to receiving assignments.

A Unit Coordinator provides the cohort with general feedback about trends in the assignments on Blackboard before she hands the assignments back. This information is then read by all students and gives them an idea of generally where they went “right or wrong”. Then tutors provide individual feedback on the assignment sheet in such a way that is specific and constructive. They focus on 2 or 3 specific points that the student can work on for the next assignment, as well as noting one aspect that was well done. Information like this, coupled with a well developed rubric can give the students a general sense of understanding about their assignment, as well as specific elements to work on for next time.
**Example 2**

The Unit Coordinator has observed over time that students struggle with creating the reflection component of their assignment. To support students in this, the Unit Coordinator changed a tutorial to include a discussion of the reflection process, and to give students the opportunity to practice in class. While students had been taught the process before in earlier units, the revisiting of the writing process allowed students to refresh their memories of what a reflection was and how to write one.

**Design that incorporates technology**

Locate places where technology might support assessment.

- Could it help with feedback;
- get students to work together;
- put students in charge of their learning; and
- assist moderation?

**Example**

A Unit Coordinator creates a specific Discussion Board within Blackboard to deal with questions about assessments. Here students are to group themselves, create responses to tutorial questions, have an opportunity to ask questions to other students about the assessment, and to put up links or e-resources that they found useful. The tutor can manage/observe the process without having to organise times with students.
A model for creating assessment tasks

1. Identify learning outcomes

This is about deciding what you want to assess. Is it knowledge, skill, understanding, attitude? Which unit learning outcome(s) does this task relate to? Which graduate attributes?

2. Identify performance indicators

Start with the learning outcomes you decided on above, and think about how you will be able to tell that a student has that knowledge, skill, understanding or attitude? What evidence will suffice to assure you that the learning outcome has been achieved at a particular level? The indicators of learning achievement will form the basis of the marking criteria. They tell students what they need to do and how well they need to do it.

3. Decide response format

Consider what response format is best suited to the task, and to the students. Be specific about what you want students to do. Identify the audience (is the marker an industry representative, the tutor, a peer...) and purpose of the task clearly. Consider what formats are accessible to students and perhaps what formats are more likely to be required of students after graduation in ‘real-world’ contexts. Consider whether incompetence with the format could cloud the evidence gathered, and what could be done to ameliorate that.

4. Consider feedback and discrimination

Clarify the assessment purpose to decide level of feedback and marking discrimination required. If it is a high stakes assessment for final certification of achievement, how fine-grained does your marking guide need to be to ensure valid and reliable discrimination?

If it is to inform subsequent teaching and learning activities, how you might encourage students to use the feedback and how will you use it to inform your teaching?

For each criterion, consider how many discernibly different performance levels you anticipate seeing. Describe each level and how you will differentiate it from adjacent levels. Consider the needs of all stakeholders, including tutors and students. Your marking guide can be valuable evidence in unit reviews.

5. Revise task and marking guide
5. Revise task and marking guide

Check the task against the marking criteria and amend either or both. Are you marking something you haven’t asked for? Have you asked for something you’re not marking? Are you marking something that you haven’t taught or students didn’t know they had to learn? Do others staff and/or students interpret the task and marking guide the same way you do?

**Before handing out your task, check that you have:**

- Provided information about the appropriate format and presentation.
- Indicated special instructions, such as a particular citation style or headings.
- Specified the due date and the consequences for missing it.
- Articulated performance criteria clearly.
- Checked your interpretation of the marking guide with others.
- Indicated the assignment’s point value or percentage of the course grade.
- Provided students (where appropriate) with models or samples.

**After the task has been completed, check for validity and reliability:**

- Do others interpret the marking guide the same way you do?
- Do you interpret the marking guide the same way at different times with different students’ work?
- Does the evidence collected allow appropriate inferences be drawn?
- Does the task yield similar results over time with similar populations in similar circumstances?
- Does the evidence collected discriminate finely enough between different levels of student performance to meet your requirements?

If the answer to any of the above questions is “No”, review and improve your task for next time. Designing great assessment tasks is an iterative process.
Authentic (‘real-world’) assessment tasks

Use your knowledge of industry to reflect on the tasks that students will need to do upon entry to the workforce; and create tasks that reflect what students will be asked to do. These tasks should become sequentially more complex as student learning develops over a course. Upon graduation, students should be prepared and confident to enter the workforce knowing they have successfully completed the types of tasks they will be asked to do.

The overarching principle is that the task asks the student to “do” the subject in an authentic context.

Authentic assessment:
- engages students in tasks that have real-world relevance;
- reflects real-world evaluation processes; and
- uses criteria that reflect real-world evaluation criteria.

Such tasks engage students in authentic learning by presenting them with a problem worth solving that is often ill-defined and requires sustained investigation, collaboration and reflection using multiple sources and perspectives.

Steps in creating authentic tasks

1. Identify learning outcomes & content to be addressed
2. Identify ‘real-world’ context and format - draft task
3. Identify ‘real-world’ evaluation criteria - draft marking guide
4. Identify performance indicators & levels of discrimination
5. Check task against marking guide to align

Good authentic assessment tasks will require:
- organisation, synthesis, interpretation, or evaluation of complex information in addressing a concept, problem, or issue;
- consideration of alternatives, understanding and use of ideas, theories, or perspectives central to the discipline;
- use of methods of inquiry characteristic of the discipline to address a concept or problem connected to life beyond the classroom; and
- communication to an audience beyond the lecturer.
Example – Creating a New Authentic Assessment Item

We follow the above steps.

1. **Identify learning outcomes (and content) to be addressed.**

   Go to the unit outcomes and select those that can realistically be assessed at this point in the unit. Here are some outcomes taken from a Psychology unit and adapted for this example.

**LEARNING OUTCOMES**

On completion of this unit, students should be able to:

1. compare the major concepts and propositions of personality theories and research;
2. compare the major concepts and propositions of intelligence theories and research;
3. analyse the influence of biological, interpersonal, and cultural factors on the development of individual differences;
4. critique a published paper, and demonstrate that ability through a written communication;
5. select and apply theories of individual differences to diagnosis and therapy, and to training and organisational development;
6. produce a comprehensive literature review; and
7. evaluate psychologists’ behaviour in psychological research and other professional contexts in relation to the Australian Psychology Society “Code of Ethics” and the complementary “Ethical Guidelines”.

In this assessment for the unit the lecturer decide that she would assess outcome 2:

2. compare the major concepts and propositions of intelligence theories and research;

2. **Identify an authentic ‘real world’ context and format. Draft your task.**

   - Students would be asked to compare major concepts and propositions of intelligence theories.. There are many ways to *compare* without relying on a traditional essay. For example:

     o Poster;
     o Presentation to the class;
     o Presentation to a peer; and
     o Presentation to a member of industry (Psychologist).

   These presentations would involve words and pictures. Other media such as video could be used.

   - The lecturer decides that each student is to produce an A3 poster for display at a conference. The lecturer decided to utilise the authentic context of an upcoming psychology conference and ask students to submit a poster as if they were submitting to that conference. (in reality they submitted the poster to her) Requirements for submission of poster presentations for the upcoming conference were downloaded and used as the basis for drafting the task.

   This approach would reduce her marking burden and would be motivating for students. She would display posters in a tutorial session and ask students to speak to their poster in 60 seconds. This way much knowledge could be shared. She would also allow time for students to view other posters. Displaying posters was an accountability mechanism. She also considers peer marking.
### Concepts vs. Indicator

<table>
<thead>
<tr>
<th>Concepts</th>
<th>Indicator</th>
</tr>
</thead>
<tbody>
<tr>
<td>Compare three different definitions of</td>
<td>Compared in terms of history and utility</td>
</tr>
<tr>
<td>intelligence</td>
<td></td>
</tr>
<tr>
<td>Compare two different ways of measuring</td>
<td>Compares two ways in terms of method</td>
</tr>
<tr>
<td>Intelligence</td>
<td></td>
</tr>
<tr>
<td>Compares research about general and primary</td>
<td>Compares general and primary and makes a conclusion at whether either or both exist</td>
</tr>
<tr>
<td>factors</td>
<td></td>
</tr>
<tr>
<td>Compare two different theories of intelligence</td>
<td>Compares any two of usual, triarchic or multiple intelligence in terms of history, intellectual rigour and utility</td>
</tr>
</tbody>
</table>
4. Determine how fine-grained the marking guide needs to be (summative/formative)

As this assessment is fairly early in the semester the lecturer wishes to use it mostly for formative purposes. Some marks will be allocated and included in the summative grade, but the marking guide does not need to be fine-grained with detailed levels of performance for each criterion.

5. Revise the task and marking guide

The task requirements and marking guide were reviewed to reflect the real conference’s submission requirements for poster presentations. In addition a peer evaluation process was introduced that mirrored the process used at the conference for the ‘people’s choice’ award.

Students were given some scaffolding for this task, such as:

Before you create your poster

- Compare two theories of intelligence, including history, intellectual rigour and utility by writing about elements like how they were developed, if they have been empirically tested, who is using them and for what purpose.
- Do general and primary intelligence factors exist? Decide and then present your case

Constructing your poster

In the first instance investigate the PowerPoint poster template

Then check out these URLs:

- [http://writing.bitesizebio.com/articles/10-tips-on-writing-a-research-poster/](http://writing.bitesizebio.com/articles/10-tips-on-writing-a-research-poster/)
- [http://www.uri.edu/inbre/corelab/equipment/poster.pdf](http://www.uri.edu/inbre/corelab/equipment/poster.pdf)
Modifying existing tasks to make them more authentic

As most people will be working from an existing assessment item to create an authentic task, we have modified the model for creating assessment tasks discussed earlier to produce a straightforward approach to modifying assessment tasks. Here is the approach.

1. Clarify the purpose of the assessment process – summative/formative
   - Summative: A mark for the end of the unit, for the system, for accreditation
   - Formative: How well did I learn this stuff; How well did I teach this stuff; Diagnostic – what concepts need re-teaching?
2. Identify learning outcome(s) to be addressed and align task with outcomes
3. Identify an authentic context and format
4. Identify authentic ‘real-world’ evaluation criteria
5. Revise the task in relation to criteria and marks allocated. Amend as necessary

Points 1 to 5 are iterative, as shown below.
Example 1 – Creating a ‘real-world’ context for a third year mathematics task

This example was part one from assignment one in a third year mathematics unit. Students had to download a data file from BlackBoard and then using SPSS (a statistical software package) generate and interpret some statistical output. The data file explored the relationship between heart rate and the frequency of a person’s stepping on stairs of various heights. After detailed explanation students had to do the following.

1. Since there are six different height/frequency combinations, use the Compute Variable command to create a new variable called “Group” (students were scaffolded through this process).
2. Find the mean and standard deviation for the variables “RestHR” and “HR” for all cases and for each group created above.
3. Use the Correlate command to find the Pearson correlation coefficient for “RestHR” and “HR” for all cases and for each group.
4. Using the results from question 3 and using correlations above 0.80, use the Regression command to find the coefficient of determination. Also find the standard error of the estimate and the regression equation.
5. Using the Chart Builder command draw a scatterplot of the data including the regression line.

1. Purpose

This was the first assessment point in a third year unit and appears mainly summative – to produce a mark or grade. Students get marks for whether they can do it or not so it could be used as a measure of mastery of content. As such it serves a formative function and can be used to diagnose any reteaching that may be required. Much information about the success of teaching or otherwise would be gained from the student responses.

2. Identify outcomes and align with learning

This means going back to the unit objectives and checking that the assessment item does indeed assess those objectives. The assessment needs to be aligned with the objective(s)

Using the above example, how well does the item align with the stated objectives below?

On completion of this unit, students should be able to:

1. Collect, summarise, and present statistical data;
2. Use an appropriate statistical methodology to analyse research data;
3. Conduct basic statistical analyses using SPSS software;
4. Design a research project based on a practical problem; and
5. Report statistical analyses and findings.

Response

1. Students don’t have to collect, summarise and present statistical as the data set has been prepared form them.
2. It would seem that they have to use an appropriate statistical methodology to analyse data but is this so? They are told which method to use so in essence they just have to push the button to get the number so this objective is not covered. If students had to choose the method and justify the choice then this objective would be addressed.
3. Conduct basic statistical analyses using SPSS software. Big tick. However independently or with direction?
4. **Design a research project based on a practical problem. No tick**
5. **Report statistical analyses and findings is only covered through the generation of a chart. However see comment 2!**

So only objective three is covered. One would expect that assessment of the other objectives would be covered in other assessments. To check this would need a specification table to be constructed.

Overall – well aligned to objective three.

3. **Identify an authentic context and format for the task**

This is an ideal assessment to be modified into an authentic assessment. Consideration should be given to “independently or with direction?”.

This is actually quite authentic already in that students are using industry standard software and interacting with what appears to be realistic data. In this case the authentic scenario might be that an external investigator wants to know if there is any relationship between certain items. The data file explored the relationship between heart rate and the frequency of a person’s stepping on stairs of various heights.

The assignment requires analysis and evidence of relationships between items. If the task was posed as an authentic problem it might require a report to the investigator containing output from SPSS that provides evidence of relationships identified and justification of conclusions drawn. These forms of evidence are required in the assignment and would enable judgments to be made.

As authentic tasks are often based on more ill-defined and fuzzy problems than the current task, an extra stage could be added before telling students what SPSS functions to use. Students could be asked to propose the process they would use, generating discussion in class before handing out the five step process from the original task.

This revised task would require higher order learning and report writing skills and may cover other objectives. What if the problem was sourced from a local industry and students had to gather their own data?

Finally, the assessments in this unit need to be analysed using a specification table.

4. **Identify authentic evaluation criteria**

If the investigator were to evaluate the quality of the report, what would the criteria be? They may include criteria such as:

- clarity of the evidence presented;
- the quality of the reasoning; and
- the justification for the conclusions.

The form of the report could be important. Would an executive summary be required? What about an index? What appendices might the investigator want to see?
Some thought should be given to the linked nature of the task in that students need to be able to do part 1 to be able to do all the rest so if they can’t do that then all marks are lost. A similar relationship exists between parts 4 and 5.

Credit for process could be thought about rather than just credit for the right answer as often authentic assessments don’t have a “right” answer.

5. **Check the task against marking criteria and marks allocated. Amend as necessary**

No marks are allocated to the various parts of the assessment. They should be allocated in line with the evidence required and with due thought to allocating marks to process. The final marking guide might look something like this:

<table>
<thead>
<tr>
<th>Report</th>
<th>Mark</th>
</tr>
</thead>
<tbody>
<tr>
<td>• coherence and structure of executive summary</td>
<td>5</td>
</tr>
<tr>
<td>• clarity of the evidence presented</td>
<td>5</td>
</tr>
<tr>
<td>• the quality of the reasoning</td>
<td>5</td>
</tr>
<tr>
<td>• the justification for the conclusions</td>
<td>5</td>
</tr>
<tr>
<td>• correct use of SPSS functions</td>
<td>5</td>
</tr>
<tr>
<td>Total</td>
<td>25</td>
</tr>
</tbody>
</table>
Example 2 – Changing an Education presentation from ‘in-class’ to ‘real-world’

The following example was the first assessment point in an Education Graduate Diploma unit designed to familiarise trainee teachers with the use of Information and Communications Technology (ICT) in the teaching process.

This is a collaborative team presentation to the class about a designated tutorial topic. The purpose of the presentation is to inform the audience about the particular ICT topic and how it relates to classroom learning. Give attention not only to the ICT topic but also to showing the audience how to teach using the particular ICT.

Time: 30 minutes + 15 minutes class discussion.

Assessment criteria:

- Use of evidence base to demonstrate knowledge of the ICT topic; (5 marks)
- Use of evidence base to demonstrate knowledge of thoughtful teaching strategy application; (5 marks)
- Structured and coherent presentation; (5 marks) and
- Audience engagement. (5 marks)

1. Clarify the purpose of the assessment

This was the first assessment point so it could serve as summative or formative assessment. As written, it seems to fulfill the function of formative assessment. However much information about the success or otherwise of teaching would be gained from the student responses. Good and timely feedback to students can serve a formative function and assist their learning.

2. Identify outcomes and align with learning

This means going back to the unit outcomes and checking that the assessment item does indeed assess those outcomes. The assessment needs to be aligned with the outcome(s)

Using the above example, how well does the item align with the stated outcomes below?

On completion of this unit, students should be able to:

1. Demonstrate knowledge of multiliteracies required to teach effectively in Australian schools.

   Response: The “Use of evidence base to demonstrate knowledge of the ICT topic” addresses this objective

2. Apply the use of technologies appropriate for use in Australian schools, including knowledge and competence in the use of relevant software.

   Response: By giving a “Structured and coherent presentation” it could be assumed that this objective is covered - if the use in teaching is demonstrated.

3. Evaluate the use of technologies for the classroom by applying current thinking and principles in effective instruction to the selection, design and production of resources for teaching and learning.
Response: By giving a “Structured and coherent presentation” it could be assumed that this objective is covered if the criteria in this objective are addressed in the presentation.

4. Construct a personal statement and collection of resources that demonstrate reflective thinking on the use of ICT in teaching and learning.

Response: Is a presentation a personal statement? Seems this one is not necessarily addressed. However presenting about a piece of useful software would add to a student’s collection of resources.

Conclusion – good alignment

3. Identify an authentic context and format

The task is currently designed as a presentation to the class about a particular ICT topic. Students are expected to discuss how the technology relates to classroom learning and to show the audience how to teach using the technology.

A more authentic context for the task might be to ask students to post to an educational technology discussion board (like Echalk) or to prepare a workshop to present to staff on a teaching practicum. The format of the presentation would clearly differ depending on the context chosen. Another possibility would be to use a similar scenario to the Psychology example, getting students to prepare either a poster presentation or a short workshop session based on submission requirements for an educational technology conference, and creating a mini-conference in class at which students could present their work. Authenticity could be increased by inviting practising teachers to attend the mini-conference.

4. Identify authentic ‘real-world’ evaluation criteria

The context chosen would determine the evaluation criteria to be used. For example, in the discussion board scenario it would be important to

- keep the message short and engaging;
- link to a web page or other resource (created by the student) where readers could find out more;
- consider structure and coherence of the post and further link; and
- consider the extent to which the post raised good points to elicit further discussion.

Criteria for the linked resource would include items from the original marking criteria such as:

- knowledge of the technology;
- pedagogical content knowledge; leading to
- strategic use of the technology to improve learning.

Using digital storytelling as an example

Key ICT points:

- Story telling needs to be of a certain genre and follow the rules of the genre
- Can use different media
- Media need to be combined for purposeful effect
- Can be constructed in Word, PowerPoint or specialist software
- Thoughtful teaching strategy
• Using software to best advantage

Key pedagogical points:

• Students need to be taught how to find, construct and manipulate images
• Students need to know how to plan their story
• Need practice in integrating different media
• Best taught using a guided example and with precise IT instructions

Key poster presentation points:

• Has a beginning, middle and end
• No extraneous material
• Main points made clear
• Audience engagement

Key workshop points:

• Use media for maximum engagement
• Focus on audience and what they are doing (NOT mostly passively listening)
• Allow time for questions
• Interesting and enjoyable

In this example the form of evidence might be dictated for the students, but in much assessment the form can be very different ranging from written, verbal, presentation, drama, poster, audio, video, recital, concert, artifact....There are alternatives to this form

5. Revise task

Having attended to the above three points it is now time to make adjustments to the task and go through the process again.

This task could be modified by considering employability (and/or graduate attribute skills) and assessing them as part of the task. For example Communications skills could be easily assessed.

6. Check the task against marking criteria and marks allocated. Amend as necessary

Key points listed in step 3 above are the points which should be included in the marking guide.

<table>
<thead>
<tr>
<th>Criteria</th>
<th>Marks</th>
</tr>
</thead>
<tbody>
<tr>
<td>Short and engaging message</td>
<td>3</td>
</tr>
<tr>
<td>Link to a web page or other resource (created by the student) where readers could find out more</td>
<td>1</td>
</tr>
<tr>
<td>Structure and coherence of the linked further information</td>
<td>3</td>
</tr>
<tr>
<td>Elicit further discussion.</td>
<td>2</td>
</tr>
<tr>
<td>Knowledge of the technology and</td>
<td>4</td>
</tr>
<tr>
<td>Pedagogical content knowledge, leading to</td>
<td>4</td>
</tr>
<tr>
<td>Strategic use of the technology to improve learning.</td>
<td>3</td>
</tr>
</tbody>
</table>
Example 3 – Assessing a Graduate Attribute as Part of Authentic Assessment

Graduate Attribute: Cross cultural and International outlook. In particular Indigenous Cultural Competence (ICC)

1. Clarify the purpose of the assessment process.

This assessment task is mainly formative. It could be used diagnostically to ascertain student’s grasp of key engineering concepts. It would also help to develop an understanding and appreciation of Indigenous engineering skill and culture, particularly in relation to sustainable use of resources. This part of the assessment contributes to grading but the weighting is low, so very fine-grained marking criteria would not be required.

2. Identify outcomes and align with learning.

In this assessment exercise the lecturer had decided that ICC needed to be formally assessed rather than just ticking a box as part of the Unit review. This was because he had spent time developing the competence in an authentic way in his engineering unit.

Specifically he wanted to assess:

Students’ understanding of the use and construction of pile foundations in high ground water areas using Western and Indigenous approaches.

He also wanted to develop:

Students’ appreciation of Indigenous engineering skill and culture in relation to sustainable use of resources.

3. Identify an authentic context and format

- Where the King river meets the Kalgan river near Albany in Western Australia are the remains of a fish trap. This trap is circular in shape and has a diameter of at least 80 metres. It is built in a shallow part of the river and is adjacent to the low bank of the river. As the river tide rises water flows over the top of the trap together with fish. As the tide goes out water drains through small apertures in the wall of the trap, gaps too small for fish to escape. At low tide most of the water has drained leaving enough shallow water for fish to remain alive and shallow enough for them to be easily caught by hand. The trap is of indigenous origin and seems to be at least 500 years old.
- The wall of the trap is made of granite stone of various sizes and shapes and was once about 50cm tall. The wall stones seem to be sitting on a large column-like stone and in some places it can be seen that this stone sits on another wide stone, also made of granite, submerged about 50cm into the river sand. The tide rises and falls about 90cm on average at this spot and about 20cm of water remains in the trap at low tide.
- The material upon which the trap is built is waterlogged sand and adjacent to the bridge is a sign warning of the presence of quick sand.
- The lecturer wanted the format to suit the students as well as suiting the authentic context. As this was a first year unit and many students had little hands on experience with real materials the lecturer decided that students would construct a model together with an exegeses – an explanation of the process they followed in coming to their solution. The authentic scenario he painted was that increasing numbers of tourists are visiting the site to marvel at its ingenuity. The Shire of Albany is concerned that the area around the trap will gradually be damaged by tourist numbers and has asked...
you to a model of the trap for tourists to view, to be displayed at a nearby location. The Shire wants the model to be supported with an isometric drawing of the trap and an explanation of the design process and design decisions made. The accompanying documentation should also briefly explain the construction method (based on the use of modern materials), and should outline how the trap works.

4. Identify authentic evaluation criteria

In this step it is necessary to state what students might produce that would enable you to infer that they have achieved the outcome. As this is an authentic task the evaluation criteria should include those the shire would use to decide which model and accompanying documents should be chosen for their display.

<table>
<thead>
<tr>
<th>Concepts</th>
<th>Indicator</th>
</tr>
</thead>
<tbody>
<tr>
<td>The deeper the pile the more stable the structure</td>
<td>Appropriate pile depth</td>
</tr>
<tr>
<td>Pile cap serves as the base of the structure</td>
<td>Appropriate size cap for load</td>
</tr>
<tr>
<td>Soil must be hard enough to shore up the foundation</td>
<td>Assesses soil hardness and adjusts cap size</td>
</tr>
<tr>
<td>Used where traditional foundations are not an option.</td>
<td>Applies method in correct context</td>
</tr>
<tr>
<td>A solid foundation can actually be obtained at almost any depth</td>
<td>Adjusts depth to suit context (construction method, materials...)</td>
</tr>
<tr>
<td>No need to do any deep excavation, draining, bracing or other temporary foundation</td>
<td>Construction method takes this into account</td>
</tr>
</tbody>
</table>

5. Devise task and marking guide.

- Task background is described above.
- Task requirements
  - (a) The Shire of Albany has asked you to construct a model of the fish trap. It should be based on a pile foundation, allow water to flow over the top, allow water to drain but not let fish escape. It should be capable of withstanding, flood, storm, neap tides and strong currents. It will have a concrete lintel sitting on top of the pile and running all the way round the trap. The pile will sit on a suitable sized foundation and the top of the pile will form the top portion of the trap. It will stick 50cm out of the water and with a 30cm lintel the whole structure will be 80 tall.
  - Using material like plaster, paper maché or plasticence construct a model of your pile, foundation and lintel. Clearly indicate the scale of your model. Indicate on the model low and high water marks and the depth of submergence of the pile.
  - (b) The Shire of Albany has further requested that the model be supported with an isometric drawing of the trap and an explanation of the design process and design decisions made. The accompanying documentation should briefly explain the construction method based on the use of modern materials, and should outline how the trap works. Find out more about indigenous fish traps. Critically evaluate any design from a pile and foundation perspective. Why did the Kalgan fish trap last so long? Compare your construction method in terms of sustainability with the likely indigenous method.
### Indicator Criteria

<table>
<thead>
<tr>
<th>Part a: Model shows</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Appropriate pile depth</strong></td>
</tr>
<tr>
<td><strong>Appropriate size cap for load</strong></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Exegesis</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Assesses soil hardness and adjusts cap size</strong></td>
</tr>
<tr>
<td><strong>Applies method in correct context</strong></td>
</tr>
<tr>
<td><strong>Adjusts depth to suit context (construction method, materials...)</strong></td>
</tr>
<tr>
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</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Part b</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Evaluation of indigenous design</strong></td>
</tr>
<tr>
<td><strong>Comparison of construction method</strong></td>
</tr>
<tr>
<td><strong>Sustainability</strong></td>
</tr>
</tbody>
</table>

### 6. Finalise the marking guide.

<table>
<thead>
<tr>
<th>Indicator</th>
<th>Criteria</th>
<th>Mark</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Part a: Model shows</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Appropriate pile depth</strong></td>
<td>Pile depth is adequate for waterlogged sand and is 50cm above bottom</td>
<td>3</td>
</tr>
<tr>
<td><strong>Appropriate size cap for load</strong></td>
<td>Foundation is of correct minimum size taking into account density of material used and concrete lintel</td>
<td>3</td>
</tr>
</tbody>
</table>

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<tr>
<td><strong>Sustainability</strong></td>
</tr>
<tr>
<td><strong>Total</strong></td>
</tr>
</tbody>
</table>
## Section Three - Examples

### Focusing on Industry Needs

#### CONTEXT

The Bachelor of Science (Web Technology, Y08) offers a work integrated learning (WIL) placement worth one semester’s credit (60 credit points) to students who achieve a weighted average mark of 65% or higher across their course. This is a capstone practicum unit in which academic supervisors ensure that an agreed plan of work is executed and in-company supervision is carried out by an industrial supervisor.

#### TASK DESCRIPTION

Students are encouraged to take responsibility for their learning by conducting independent study and research, and by adopting an ‘action learning’ process which requires them to reflect on their past actions to improve their future, professional, decision making skills.

The assessment task is structured around a Performance Development Report (worth 30%), a Work Integrated Outcomes Report (45%) and a Host Organization Report (25%). Students are assessed on their ability to: meet project deadlines; create appropriate solutions to industry problems; implement these solutions; and adequately reflect on and adjust their work performance.

#### BENEFITS TO STAFF AND STUDENTS

The WIL program is popular amongst students, as indicated in this comment from the Unit Coordinator (UC) below:

"International students in particular are very keen to be involved because the work experience is such a key factor in being employed."

#### HELPFUL TIPS & ADVICE

Because of the 65% course average required to be eligible to apply for the program, it is important that students are informed of WIL opportunities from day one of their studies.

Future WIL programs must be responsive to change. This program is constantly developing as staff receive feedback from students and their industry hosts. Since the program’s inception, students now undertake a two-week probationary period, obtain security clearance, and participate in an interview process before being accepted to a placement.

"The best advice would be to keep your program as general as possible. We have had students who have travelled to the United Arab Emirates and they used exactly the same instruments and mechanisms and it worked perfectly" (UC).

*Unit Coordinator: Dr Justin Brown*

*Computer Science*

*A WIL program responsive to industry needs.*
Using Industry Links to Springboard Careers

CONTEXT

Practical Broadcasting (BRO3010) introduces students to broadcast production and presentation techniques. It is a core unit in the broadcasting major in the Bachelor of Communications and typically has about 50 students enrolled across two tutorial groups. It runs in collaboration with students from the Screen Academy to draw broader expertise into the unit.

In 2012, ECU was commissioned by West TV to provide four 24-minute lifestyle/current affairs programs. Each program featured a variety of reports sourced, shot, presented and produced by students. The quality of the programs was of such a high professional standard, that all were included in final broadcasts. Following this success, in 2013 national broadcaster Channel Seven commissioned the production of three more programs.

TASK DESCRIPTION

Students work in groups of two to three to develop story items which are submitted mid- to- late semester for assessment. The Unit Coordinator, ECU tutors and industry partners provide feedback to improve the items and make them more suitable for broadcasting. Students are asked to incorporate the feedback and then the product is reassessed. Finally, the individual stories are placed into a program and assessed on how they fit into the overall genre and theme set by the Unit Coordinator in collaboration with industry partners. Themes used in the past such as ‘Local Heroes’ and ‘Away But Home’ provide the impetus for broad-based community engagement.

Each program has a different production team. The students take on the role of producers, presenters, reporters, camera operators, segment editors and they complete assembly of the program.

The assessment provides evidence for the following learning outcomes:

- operate broadcast equipment in the studio and the field;
- produce a range of materials for broadcast via radio, television and the web;
- work in teams to create radio and television programs;
- evaluate the suitability of material for broadcast; and
- present a completed e-portfolio to potential employers.

The assessment criteria include technical proficiency using recording and editing equipment, as well as the more critical and creative aspects of broadcast production such as script writing and thematic fit.

BENEFITS TO STAFF AND STUDENTS

Although a stressful assessment, when students see their programs on public broadcasts, the sense of achievement is immense. Having a product that family and friends can view adds to this rewarding experience.

The 2012 cohort created their own Facebook pages during the semester, developing a sense of camaraderie through the process. They used the site to congratulate each other when the programs were aired. For students from the Screen Academy, possessing a TV credit is an important contribution towards their portfolios.

For staff, there is the development and maintenance of industry links with Perth Now, WA Today and Channel 7.
HELPFUL TIPS & ADVICE

The ECU broadcasting graduates have a fabulous reputation in the industry, however this has not spread to secondary schools where potential students and their parents remain unaware of the success of the major. This is an area that staff aim to address in the future.

This assessment leverages the strong industry relationships of teaching staff to engage students in real-world tasks and publicise their work. However, strong industry relationships may be common to other disciplines and subjects. Further, students' work can also be highlighted and publicised through the use of free social media.

Unit Coordinator: Mr David Smith

Broadcasting

Having a product that family and friends can view adds to this rewarding experience.
Getting Authentic Feedback from Industry Representatives

CONTEXT

Coastal Engineering (ENS4252) is a fourth year elective unit offered within the Bachelor of Engineering (Civil) and Bachelor of Engineering (Civil & Environmental) courses and has approximately ten enrolments in the semester. The unit provides an introduction to the design and construction of coastal and harbour facilities and other marine structures. Topics include port facilities, moorings, harbour design and associated works, and the use of appropriate materials for marine construction.

TASK DESCRIPTION

Students work in teams of three to four and are tasked to conduct a site investigation and propose a design for an authentic shore protection structure system on a real, given site. This includes providing detailed design calculations to assess the proposed structure for its performance under normal service loads and under one selected extreme load (e.g. traffic, winds, surge, earthquakes, and tsunamis). The design is developed throughout the semester with students having the opportunity to submit drafts and obtain feedback.

The final report is reviewed by industry representatives and includes a statement of the problem, descriptions and analyses congruent with industry expectations.

BENEFITS TO STAFF AND STUDENTS

This task is a simplified version of a typical engineering coastal design brief using a real, given site. Students are supported in their design development (through scaffolding of the tasks) which would not normally occur in the workplace. Consequently, they have the unique experience to work on proposing an actual shore protection system with the added value of receiving feedback from practising professional engineers who assess the designs. The collaboration within the teams mimics the usual design office process.

HELPFUL TIPS AND ADVICE

It is important to line up the industry representatives early and, if possible, at least one semester prior. Students require on-going informal feedback during the design process, which is possible due to the low student numbers. By closely linking design development to the lecture content, student learning can be maximised.

Unit Coordinator: Dr Hang Vu

Engineering

Having the task marked by industry representatives was motivating to students, and the representatives were very satisfied with the standard of work.
Designing Illustrations for Real Clients

CONTEXT

Vector Illustration (DES2104) is a second year elective unit across a number of majors attracting approximately 40 students per semester. The unit introduces students to a range of techniques, styles and applications involved in the design and construction of vector-based illustrations.

The assessment below challenges students to produce work of a standard appropriate for a graduation portfolio: work that proves to a potential employer that they are capable of pushing technical boundaries and able to deal with unusual, complex tasks. This includes making concepts and complex systems, which cannot be photographed, ‘visible’.

TASK DESCRIPTION

Recent students were asked to develop industry standard editorial illustrations for HD Magazine; create designs for the novelist Annabel Smith; and produce illustrations for the Gravity Centre of Australia (i.e. an association that has both produced and displayed student work).

Students were assessed on their ability to create hierarchical, visual explanations of complex data; to work within the technical parameters of large format print and prepress specifications; to understand current trends in vector-based design soft are (demonstrated in the standard of their design’s graphic elements); and to accurately express the client’s desired information. A reflective task was added to the assessment where students were expected to provide a rationale that clearly explains their design decisions with regard to composition, colour and text.

BENEFITS TO STAFF AND STUDENTS

Students reported that they thoroughly enjoyed this unit, especially seeing their work in print and on display for the public. The projects have real-world impact and are often used in exhibitions. The nature of the assessment increased student confidence, helped them to build portfolio material, and provided them with the opportunity to develop industry contacts.

With the success of this unit, most units in the Graphic Design Major no involve some work for a real client. The artistically challenging nature of the assessment tasks and the opportunity to publicly display their work have increased students’ motivation and satisfaction.

HELPFUL TIPS & ADVICE

It is worth noting that in developing real-world assessment tasks, unit coordinators need to be careful to align their goals with those of their industry at large. The Unit Coordinator suggests:

"We need to be mindful of doing work for nothing, which might be seen (especially by the Australian Graphic Design Association) as undercutting the very industry our students are about to enter."

Unit Coordinator: Dr Hanadi Haddad

Design

Students are building a portfolio while working with real-world tasks.
Connecting Research with Practice in a Clinic

**CONTEXT**

Intensive Mathematics Clinic (MPE4102) is a fourth year elective for School of Education students (i.e. pre-service teachers). The unit is conducted over the winter school period, is held on-campus and is worth 15 credit points. Approximately 50 students enrol in the unit. The unit develops the skills and knowledge necessary for reflective, critical inquiry in the teaching of mathematics. It enables students to participate in wider professional debates by providing an opportunity to explore the connection between research and practice.

**TASK DESCRIPTION**

A mathematics clinic forms the centrepiece of the unit and is conducted over two weeks during the winter intersemester period when teaching spaces are more freely available. Each student works with a child (8–11 years old) who is experiencing difficulty with mathematics. Students must use a range of data gathering and analysis techniques to determine the specific area of difficulty for the child. They must evaluate the data and design a session plan to teach the problematic concepts diagnosed. The student then delivers the lesson (or ‘intervention’), assesses for learning and then reflects on the experience.

During the clinic, students are observed and assisted by academics teaching in the unit. Students allocate three hours per day during the clinic: two hours of research and/or teaching preparation and one hour to work with the child. There are two assessment tasks built around the clinic: a session plan and a final report to communicate their findings. The report includes discussions around the intervention tools and a brief literature review.

Upon completion of the unit students should be able to:

- work collaboratively with colleagues on a systematic inquiry into an aspect of teaching mathematics;
- apply appropriate tools for diagnosing children’s abilities in mathematics;
- produce a session plan to create a sequence of learning experiences in mathematics for one child;
- use appropriate computer software to complete and present a report;
- discuss and present aspects of the inquiry to interested groups; and
- produce a written report analysing findings using a range of data gathering and analysis techniques, combining qualitative and quantitative processes.

The assessment criteria for the report (worth 70% of the unit) covers components such as the intervention tool and how this is aligned to the diagnosis; the quality of the child’s profiling and interventions; links to NAPLAN testing; and university writing conventions.

**BENEFITS TO STAFF AND STUDENTS**

For the student, the unit provides an opportunity to be involved in authentic high-level teaching activities such as learning diagnosis, planning and implementing interventions and reflective practice. The unit complements and builds on course content taught in previous years by linking theory with practice. It also gives the student greater confidence when working with children, their families and their supervisors or mentors.

For the child and their family, it can build confidence; provide parents with evidence of their child’s mathematical skills and progress; and enhance relationships between the child, the parent and their teachers.
HELPFUL TIPS AND ADVICE

Mutuality of benefit to all stakeholders is paramount to the success of this assessment. In this case, the student, the child, the parent/s and the child’s school all benefit from the experience. Naturally, a strong industry reputation and relationships with nearby schools are critical for the success of this unit.

Unit Coordinator: Dr Paula Mildenhall

Education

It... gives the student greater confidence when working with children, their families and their supervisors or mentors.
Collaborating to Design a Street Festival

CONTEXT

Design Practices: Project (DES3208) is a core unit in the graphic design major. It is available to students in second semester and it attracts approximately 50 students. This unit addresses issues of project design management and design production by engaging students at a professional level of competence in a large, complex, design project. Students are expected to create formal design briefs and design documentation to support their ultimate design outcomes.

TASK DESCRIPTION

The assessment provides students with the opportunity to work on projects for, and with, the City of Vincent. Last year, students worked on designs for the two major street festivals the City runs: the Beaufort Street Festival and the Oxford Street Festival. These festivals involved graphic design students working collaboratively with environmental and spatial design students at a third year level. The City briefed students (informally) about specific design problems associated with holding a street festival. These included creating visuals for various aspects of the festival, dealing with parking problems, activating dead or antisocial spaces, and addressing ‘hardscape’ to alleviate microclimate issues (such as brick and concrete holding too much heat).

BENEFITS TO STAFF AND STUDENTS

The strategy driving this assessment is for students to have ‘real’ work in their portfolios prior to graduation so that they have some work experience that covers typical early-career graphics work. The complex nature of the festival projects require students to push beyond their technical boundaries and demonstrate that they are capable of completing more demanding and unusual tasks for clients.

The noted projects culminated in presentations to representatives from the City of Vincent. Following the presentation, officials from the City invited ECU to have students present some of their project work to Council for further attention.

HELPFUL TIPS & ADVICE

Early preparation and communication with key stakeholders is important. The City of Vincent is contacted early in semester one to prepare the series running in semester two. It is also important to debrief with the client about what it has been like dealing with the students, and for ECU staff to discuss how any further interactions can be improved for ongoing development.

Unit Coordinator: Dr Stuart Medley

Graphic Design

Students welcome the opportunity to do substantial work for a real client (out of the classroom) and the best performing students had their work selected for public exhibition.
Interdisciplinary Collaborations Simulating Field Experience

CONTEXT

Analysis of Sensorimotor Systems (SPE2104) is a second year unit offered on-campus with enrolments of approximately 30 students in the semester. Students study the normal structure, function and innervation of the respiratory, phonatory, speech production and hearing systems. They learn to use acoustic analysis and the instruments used to assess speech and swallowing disorders as well as hearing loss. Students work with clients from a diverse range of cultural and linguistic backgrounds.

TASK DESCRIPTION

In order to complete an assessed laboratory report, students need to attend a WAAPA voice screening session to assess the voice of a first year student enrolled at WAAPA. During the voice screen session students obtain relevant case history information and use PRAAT, an acoustic analysis program, to collect voice samples. The students each write a report to interpret the results from the session. To meet the assessment outcomes students need to:

• demonstrate competency in the use of acoustic analysis software to record, digitise and analyse voice quality in speech samples;
• interpret and report the results of laboratory exercises with reference to the context of current literature; and
• contrast and report the procedures involved in the clinical use of instrumental analysis of speech impairment.

BENEFITS TO STAFF AND STUDENTS

Collecting the data and writing these reports provides a real-world experience for students as they are required to meet their client, identify a baseline through rapport building, and use software and report writing conventions commonly used in the workplace.

HELPFUL TIPS & ADVICE

This task requires close collaboration with WAAPA staff and students to coordinate appropriate times for both the information sessions and data collection. Students need to be well briefed as opportunities to collect the data are limited and do not allow for non-attendance.

Unit Coordinator: Dr Charn Nang, in collaboration with Julia Moody and Donald Woodburn (WAAPA).

Speech Pathology

Interdisciplinary collaboration provides an opportunity for students to gain field experience within a university setting.
Reflecting Working in Dynamic Environments

CONTEXT

Interactive Web Development (CSG2431) is a core unit in the Bachelor of Science (Web Technology) degree and is offered on-campus and online, attracting approximately 30 students each semester.

The unit focuses upon the development of dynamic, database driven, web-based content management systems (CMSs), an increasingly prominent aspect of modern software development which encompasses everything from Facebook to Blackboard.

TASK DESCRIPTION

The unit has two assessments. The first assessment requires students to code a web-based content management system with fairly simple criteria, focusing on interaction with the database (retrieving data and inserting data). The system requires user accounts and access levels to be managed. The second assessment builds upon the first, requiring students to add more sophisticated functionality and implement more complex business logic into the system.

The theme of the CMS changes each semester, typically mirroring realistic examples and scenarios. Prior themes have involved social networking, movie discussion, room booking, volunteer management and more. These assessments develop crucial skills for any modern web developer, and the ‘build then expand’ relationship between the two assignments reflects the progression of on-going development projects in the field.

BENEFITS TO STAFF AND STUDENTS

This assessment structure has been well received by students for a number of years. It challenges them, but they appreciate the realism of the task and often go beyond the brief to add features that add value to their projects.

HELPFUL TIPS & ADVICE

The current format is the result of numerous years of tweaking. Some of the minor aspects not already mentioned are explained below.

Allocate a small amount of marks for ‘extra features and/or demonstration of deeper understanding’ to encourage high-performing students to go beyond the brief and seek inspiration from the field as to how they can further improve their work.

Emphasise the ‘build then expand’ relationship between the assessments and the importance of treating them as one project.

Decide what you are assessing or trying to teach and build the assessments around this.

Draw inspiration from real-world scenarios but don’t let them force an awkward or inappropriate assessment. Simplify, remove or change aspects as necessary. If students could create projects with the complexity and depth of prominent projects in the field, they wouldn’t be students!

Unit Coordinator: Dr Greg Baatard

Computer Science

Students are easily able to see the value of what they create and the ways in which their projects relate to the full-blown web applications they use on a daily basis.
Mirroring the Consultative Process

CONTEXT

Biomedical Ethics (SCH3145) is a third year, first semester, on-campus unit attracting approximately 50 students divided into two tutorial groups. The unit is focused on developing a critical awareness among prospective health care professionals and student researchers as to the nature, function and importance of ethical issues across a broad range of health, biomedical and health care issues.

TASK DESCRIPTION

The unit combines the study of the theoretical bases of ethics in the context of health related areas with discussion of real-life moral dilemmas. This case-based learning is applied during the compulsory one-hour weekly tutorials and involves students working in teams/small groups to discuss ethical issues affecting professionals in the field of medical sciences; for example, issues associated with autonomy and consent. The students analyse and discuss ethical dilemmas in case studies presented to them; apply the ethical principles and theories to support their arguments/counter arguments; and generate decisions that mirror those made in a work setting or consultative process.

BENEFITS TO STAFF AND STUDENTS

This case-based learning approach provides an opportunity for students to consider how theory applies to practical situations in the workplace, and the team discussions simulate this practice.

HELPFUL TIPS & ADVICE

This is a third year unit which focuses on higher order critical thinking, communication and collaborative working skills. Similar activities applied to first and second year units would require more time spent scaffolding these skills.

Unit Coordinator: Dr Navneet Jalani

Biomedical Sciences

Students make informed practical judgements based upon the knowledge of sound ethical principles and theories through the use of case studies.
Simulating an Industry Deadline

CONTEXT

Introduction to Journalism (JOU2111) is a core unit in the journalism program with enrolments of approximately 80 students per semester. The unit provides an introduction to the principles and practices of the journalistic process and covers both practical and critical dimensions. This includes reporting and editing skills, news and feature writing, and exploring the legal, social, ethical and political aspects of current events.

TASK DESCRIPTION

As part of the unit’s assessed tasks, students are ‘notified’ of a simulated media conference held during a specified lecture. Students are advised to actively participate in this interview and ask quality questions to ensure a ‘newsworthy’ story. A guest lecturer (normally a WAAPA staff member) is invited to give the media conference and students are asked to play the role of the press. The guest speaks briefly and then asks if students have any questions. It is the students’ responsibility to get the most out of the interview by asking questions; if no questions are asked, the guest will remain silent. They are briefed immediately prior to the arrival of the guest speaker and pre-warned if they do not ask questions during the conference, they will have nothing to write about. Students are then provided 90 minutes during the subsequent tutorial to write and file a 400-word news story to simulate a deadline, and are reminded that journalism is competitive. They are challenged to write the most ‘newsworthy’ story using the same interview.

BENEFITS TO STAFF AND STUDENTS

This assessment exposes students to the reality of working in journalism as they are tasked with gathering information (from the interview) and writing a short news story within a restricted time frame (simulating deadlines). They are also challenged to submit a newsworthy article with a competitive edge, exposing the competitive nature of journalism.

HELPFUL TIPS & ADVICE

As this is a core unit for first and second year students, it is important to further develop students’ skills in preparation for the task. In addition, students need to be fully advised on the time and date the conference is to be held to ensure attendance. It is important for students to work on the write-up during class time directly after the interview. This avoids issues if students have further classes after the unit’s session, which may disadvantage them by restricting their writing time compared to students with no classes.

Unit Coordinator: Assoc. Professor Trevor Cullen

Journalism

Students are challenged to submit a competitive, newsworthy article in a simulated deadline.
A Self-reflective Learning Journal

CONTEXT

The practical rationale for Self-Development 2 (COU3102) is to reinforce students’ understanding and appreciation of the ways in which their personal concerns and life experiences, together with their values and beliefs, may impact on their interpersonal communication, counselling skills and engagement with clients. The assessment tasks of [a] a Self-Reflective Learning Journal (twelve weekly entries); and [b] a Self-Reflection Summary Report are designed to deepen each student’s capacity to self-reflect, to increase self-awareness, to respond appropriately to feedback, and to use reflection to inform practice.

The Self-Reflective Learning Journal is a pass/fail assessment. The unit is conducted in both on-campus and online modality. The work presented here is taken from the on-campus unit.

TASK DESCRIPTION

At the start of the unit, the class is taken through a sociometric group process after which each student is asked to choose another student from within the group to be their ‘learning partner’. The learning partner is someone they can learn and share with, at a personal level, their responses to in-class self-development activities. The pair then selects another pair of students to form a Small Self-Development Group. The group works together throughout the semester to complete self-development group activities. Each student reflects on how he/she reacted, responded and interacted within themself, individually, and with others as learning partners and in the Small Self-Development Group. Each student then writes a brief analysis of these reflections.

In particular, the learning outcomes linked to the Self-Reflective Learning Journal are for each student to:

- demonstrate an understanding of the importance and relevance of reflective practice in the work of counselling and psychotherapy;
- identify their own personal and professional requirements for encouraging self-reflection;
- use a selection of tools such as the Johari Window for examining self and increasing self-awareness; and
- exercise critical thinking and judgement in the responsible use of confidentiality.

BENEFITS OF THE TASK

Importantly, the capacity to reflect upon one’s ‘self’ assists in enhancing creative thinking, autonomy, effective communication and relational competency. The capacity for self-reflection is an essential component when participating in professional and clinical supervision, which is a requirement of the professional and ethical obligations stated in the codes of ethics of professional associations in counselling, psychotherapy, psychology and other allied health professions.

Reflection encourages professional accountability through an awareness of separating and identifying personal concerns and experiences, which have the potential to impact effective and responsible professional practice.

HELPFUL TIPS AND ADVICE

Staff and students need to understand and appreciate group process and establish clear group guidelines such as:

- confidentiality – how to determine what is safe for each of you to share and what is each of your expectations in regards to confidentiality;
- contact details – sharing and exchange of contact information;
• contact boundaries – when and how you may contact each other including any restrictions (e.g. not being contacted after 8pm or on Sundays); and
• relationship boundaries – styles and ways of sharing, making requests for support and encouragement, respecting one another when either wants some space or ‘time-out’ and not intruding upon one another unnecessarily.

Keep groups manageable and ensure that all students feel safe with their learning partner and group. To achieve this, it is essential that all students attend the first two weeks of classes at the commencement of the semester and the final session in the twelfth week of semester. Provide session pointers for students outlining the students’ responsibility for the session.

Unit Coordinator: Ms Karen Anderson

Counselling

The capacity for self-reflection is an essential component when participating in professional and clinical supervision.