



Blended Learning @ JCU Contents

A guide for staff

About this guide	3
1. Definition, Rationale and Possibilities	4
1.1 What is Blended Learning?	5
1.2 Why Blend?	5
1.2.1 Blended Learning Possibilities	5
2. Designing for Blended Learning	7
2.1 The Design Process	8
2.2 The Process Explained	8
2.3 Five Steps to Blended Learning Design	9
3. Blended Learning Frameworks	10
3.1 Blending for Active Student Engagement	11
3.1.1 Blended Learning and Bloom's Taxonomy	11
3.2 The 5Es Framework	13
3.2.1 Engage	14
3.2.2 Explore	15
3.2.3 Explain	16
3.2.4 Elaborate	17
3.2.5 Evaluate	18
3.2.6 Examples of Blended Learning at JCU using the 5Es Framework	19
3.2.6.1 Blended Learning Design for Geology	19
3.2.6.2 Blended Learning Design for Education	19
3.2.6.3 Blended Learning Design for Occupational Therapy	20
Appendix A – Ensuring Alignment in Blended Learning Design	22
Appendix B – Audit of Current Practice	23
References	24

Tables

Table 1.1. – Relationship between course type and percentage of content delivered online	5
Table 3.1. – Bloom's Digital Taxonomy	12

Figures

Figure 1.1. – Possibilities for blended learning	6
Figure 1.2. – Possibilities for blended learning within the LearnJCU environment	6
Figure 2.1. – Designing blended learning at JCU	8
Figure 2.2. – Five steps to blended learning design	9
Figure 3.1. – Interactions between active and passive learning strategies and the degree to which learners are engaged with their learning through various activities.	11



About this guide

The aim of this guide is to present an introduction to blended learning design for higher education, and to briefly take you through the process of integrating technology into your learning and teaching practice.

We have structured this guide around the notion of engaging in a systematic process of planning, designing and developing, implementing and reviewing; good practice for any curriculum design endeavour.

For each stage in this process, we have attempted to provide guidance, key principles to underpin practice, and an

overview of the commonly used tools and technologies for use with subject content and resources, student activity and collaboration, assessment, communication, and the management and administration of learning and teaching.

Throughout this guide we refer you to online resources, help guides, and further reading. to do!

At JCU there are Academic Developers and Educational Designers in Learning Teaching & Student Engagement (LTSE) who can assist you.

Most importantly, we also encourage you to talk to colleagues, share your own ideas and experiences, and learn from each other; after

all, that is what we encourage our students to do!

1.1 What Is Blended Learning?

“Blended learning” refers to learning design that strategically, systematically and effectively integrates a range of face-to-face, online, mobile, distance, open, social and other technology enhanced learning across physical and virtual environments, as informed and driven by student needs and support for desired learning activities and learning outcomes (JCU Blended Learning Policy, 2014).

Blended Learning covers a wide range of activities across a continuum spanning conventional and face-to-face interactions to those that are online. Blended learning courses use a mix of face-to-face and online delivery (between 30-79%).

1.2 Why Blend?

Blended learning is the purposeful use of technologies to enhance student learning and outcomes. It is the purposeful use of technologies in subject design to enhance the learning and teaching experience for teachers and students by enabling them to engage in ways not previously available to them.

Blended learning design can:

- Broaden the spaces and opportunities available for learning;
- Support subject management activities (eg. communication, assessment, submission, marking and feedback);
- Support the provision of information and resources to students;
- Engage and motivate students through interactivity and collaboration.

It is not about using the technology because it is available; it is about finding better ways to support student achievement of learning outcomes and providing them with the best possible learning and teaching experiences, as well as supporting teachers.

The integration of blended learning will vary greatly depending on your subject context.

1.2.1 Blended Learning Possibilities

Taking a blended learning approach to your subject can be used to support face to face teaching, large and small group learning, self-directed learning, and communication with and between students. You can blend time, (ie. Face to face v. recorded lectures), place’ (tutorials v. discussion, virtual field trips), ‘people’ (podcast of guest lecturers) and resources and activities.

The figure (1-1) on the following page, courtesy of Griffith University (2010), illustrates the possibilities for blended learning.

Figure 1-2 titled “Possibilities for Blended Learning within the LearnJCU environment” shows LearnJCU supported technologies, according to the following purposes: (1) delivery of course content; (2) communication and collaboration; (3) tracking student activity; and (4) assessment and feedback. When designing for blended learning, this diagram provides a way to consider which technologies can support the planned activity designed to enhance student learning.

Table 1.1. Relationship between course type and percentage of content delivered online.

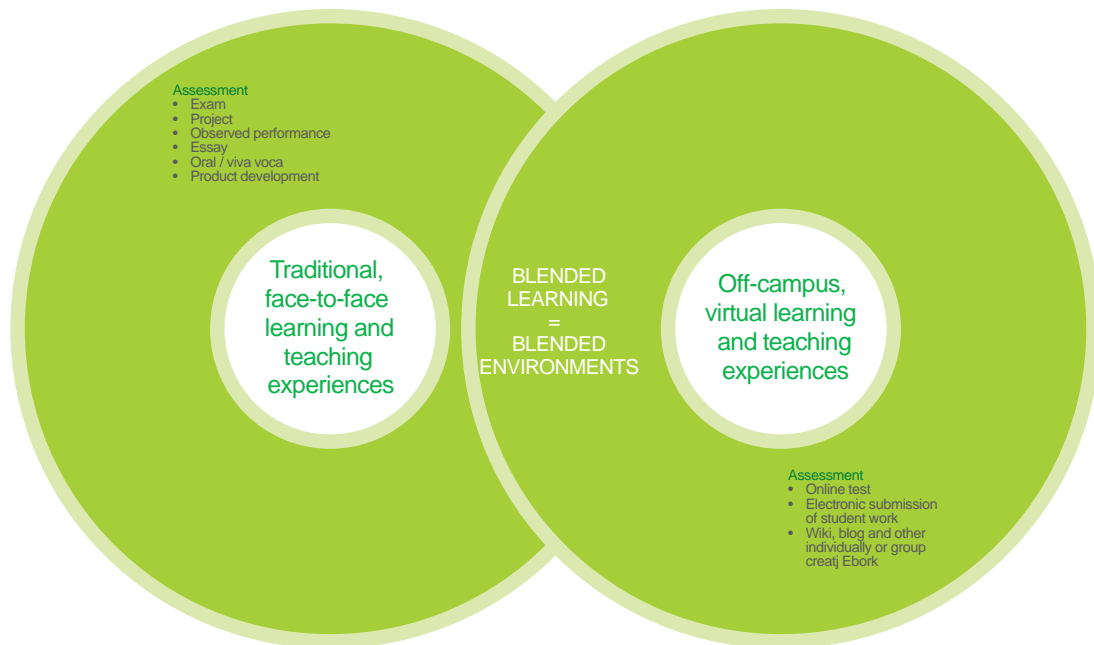


Figure 1.1. Possibilities for blended learning

Source: Griffith University, 2010, p. 4

Teaching with Technology at JCU

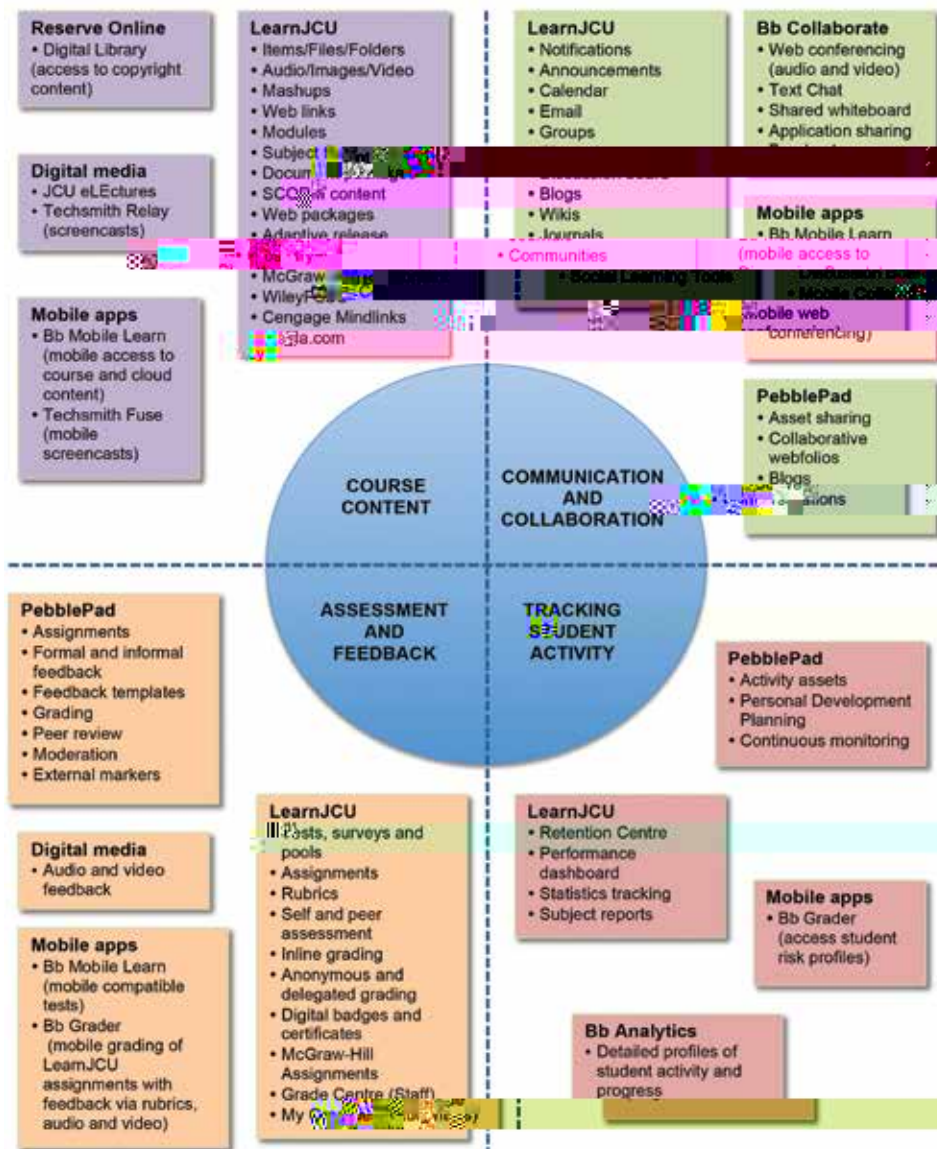


Figure 1.2. Possibilities for blended learning within the LearnJCU environment

2.1 The Design Process

Taking a deliberate approach to the design of technology-enhanced learning experiences is crucial for the success of blended learning. The JCU Learning, Teaching and Assessment Policy states, that approaches to teaching are varied and adaptive to new demands in learning and will include effective use of appropriate technologies and innovation. www.jcu.edu.au/policy/allitoz/JCU_076643.html.

Quality blended learning design exhibits the following features:

- Participative, not just interactive (Wild, 2007)
 - Processes of cognition & collaboration enhanced through students being actively engaged in their own learning.
- “Thinking and working together creates learning” (Allen, 2010 cited in Griffiths University, 2010, p. 7).

Good preparation and decision making is essential not only for efficient use of your time, but also the creation of quality learning experiences for your students.

2.2 The Process Explained

The following questions can serve as effective prompts for designing your blended learning programs:

Planning

- Who are my learners? (Profile your learners)
- What are my learners expected to achieve and to what standard? (Subject Learning Outcomes)
- What assessment tasks have been designed to enable my learners to demonstrate they have met the learning outcomes?
- What feedback has there been about this subject?
- What are consistent learning issues in my subject? Make a start by disrupting current ways of doing. How can a purposeful blend:
 - clarify confusing concepts?
 - provide fundamental concepts?
 - invigorate potentially dull aspects of your subject?

Designing

- What teaching and learning activities will I design to support student learning?
- What frameworks can be used to support the implementation of blended Learning?
- How can a purposeful blend support the student experience and student learning?
- What active learning strategies should be used and how can a deeper approach to learning be encouraged?
- What resources are available to support students and staff?

Implementing

- How will I track my learners' activity and provide feedback to them?

Reviewing

- How do I know it is a useful blend?
- What feedback has there been from my learners, from staff or from industry partners?

Improving

- What changes need to be made for the next delivery of this subject?

Blended Learning Design Cycle

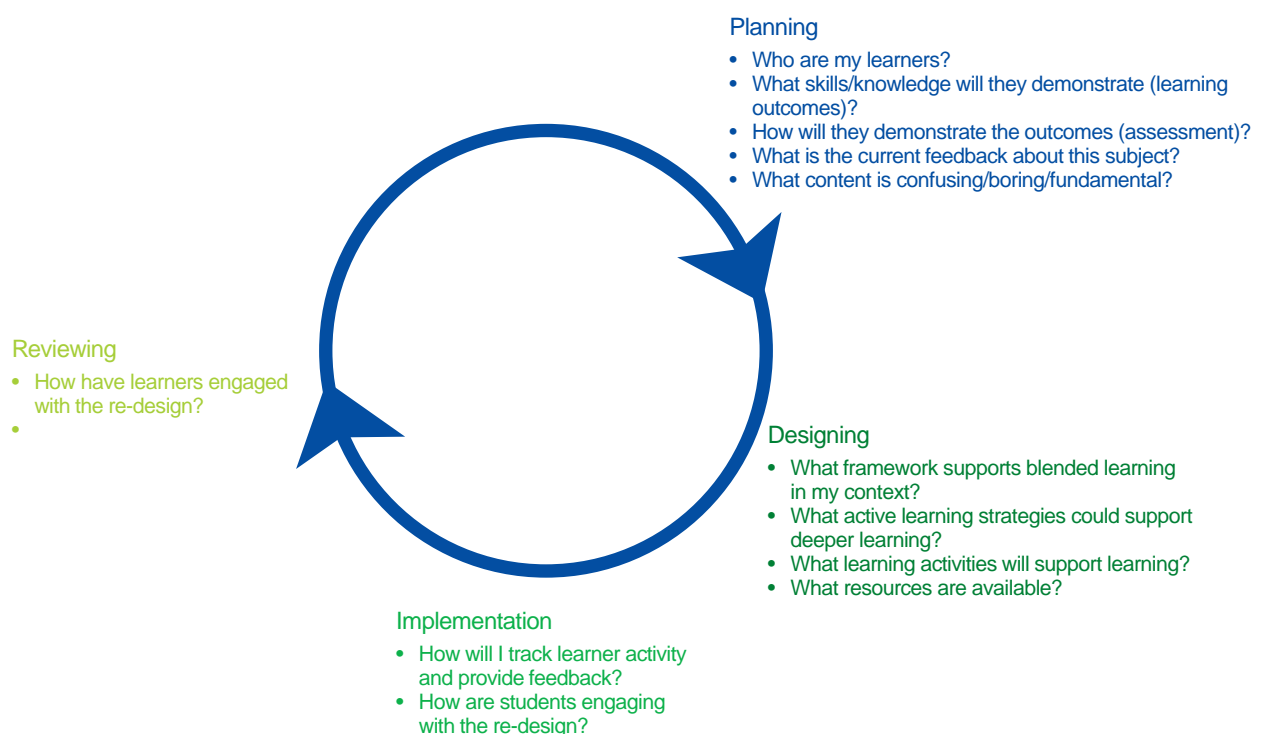


Figure 2.1. Designing blended learning at JCU

3.1 Blending for Active Student Engagement

Active engagement with subject material is vital for effective learning. Research overwhelmingly supports the idea that student achievement is enhanced when students go beyond the passive tasks of listening and reading or viewing. Active engagement can be facilitated through individual or collaborative work. Within your subject student activity should ideally include a combination of individual and collaborative work as well as formative and summative tasks to support students in attaining the subject learning outcomes.

Figure 3-1 outlines the range of outcomes from Bloom's Taxonomy that are possible when using active learning strategies in your teaching.

3.1.1 Blended Learning and Bloom's Taxonomy

The following table aligns different types of blended learning activities with cognitive processes organised according to Bloom's Taxonomy. If you are interested in applications related to active learning and Bloom's Taxonomy please follow these links:

Level of learning	Types of blended learning activities
Creating Designing, constructing, planning, producing, inventing	Programming, Imaging, animating, video/blogging, mixing/re-mixing, web publishing, webcasting, directing or producing, – used to create a film, presentation, story, program, projects, media product, graphic art, podcast, advertisement, model.
Evaluating Checking, hypothesising, critiquing, experimenting, judging, testing	Debate or panel (using webcasting, web conferencing, online chat or discussion), investigating, (online tools) and reporting (blog, wiki, presentation), persuasive speech (webcast, web document, mind document, mind map-presentation mode), commenting/moderating/reviewing/posting (discussion forums, blogs, wiki, chat room, twitter) as well as collaborating and networking.
Analysing Comparing, organising, deconstructing, interrogating, structuring	Surveying/polling, using databases, relationship mind maps, online SWOT analysis, reporting (online charts, graphing, presentation or web publishing), mashing, meta-tagging.
Applying Implementing, carrying out, using, executing, editing	Simulation games or tasks, editing or developing shared documents (wiki, video and sound tools), interviews (e.g. making podcast), presentation or demonstration tasks (using web conferencing or online presentation tools), illustration (using online graphic, creative tools).
Understanding Interpreting, summarising, paraphrasing, classifying, explaining, comparing	Building mind maps, blog journaling, wiki (simple page construction), categorising and tagging, advanced internet (Boolean) searches, tagging with comments or annotations, discussion forums, show and tell (with audio, video webcasting).
Remembering Recognising, listing, describing, identifying, retrieving, naming, locating	Simple mind maps, flash cards, online quizzes, basic internet searches (fact finding, defining), social bookmarking, Q&A discussion forums, chat, presentations.

Table 3.1. Bloom's Digital Taxonomy

Source: Adapted from Churches, 2008: retrieved <http://www.scribd.com/doc/8000050/Blooms-Digital-Taxonomy-v2-12>

3.2 The 5Es Framework

A useful model for constructing blended learning is the 5 E's model. The model emanated from science curriculum moves to promote inquiry and more student-centred learning. The 5 E's model is derived from the concept that students learn and retain knowledge when they have had the opportunity for discovery through a variety of experiences purposefully designed by the teacher or learning facilitator. Student use their prior knowledge to make connections between new information/experiences and prior knowledge. To help students make these connections learning facilitators structure experiences that are organised into five phases:



3.2.1 Engage

The purpose of 'Engage' is to focus students' attention on the lesson/topic, create an organising framework for the ideas, principles, or information that is to follow (teaching strategy called "advanced organisers"), to extend the understanding and the application of abstract ideas through the use of example or analogy. The "hook" can be used any time a different activity or new concept is to be introduced.

Strategy	Purpose	Description of strategy	Examples	Implementation suggestions and variations
Topical/controversial video & associated focus question(s)	Students focus their attention on important material	Topical/ controversial video engages students in watching a multimedia clip that will 'start them thinking' or 'shock their thinking' regarding a topic to create academic interest around this and front end the further learning.	Instructor poses 1-3 focus question, and shows a short video clip to address these. Such as <ul style="list-style-type: none"> • TED talk • Khan Academy • YouTube • Vimeo Or try any of the links associated with this site http://edtechreview.in/e-learning/170-free-online-educational-videos-resources	<ol style="list-style-type: none"> 1. Clickers could be used if questions are multiple choice 2. If questions require an opinion statement, students could place themselves on a continuum and share responses. 3. Students could write and display their answers on mobile whiteboards (white paper in a plastic sleeve) to promote engagement 4. Think, pair, share: students share responses with a partner and then larger group. 5. Students write answers on 'post – its', these are handed around and students report back on the post its they have received (non- threatening) or post them on the walls of the teaching space
Focussed listing; pre-quiz	Instructor identifies students' prior knowledge or attitudes Students recall what they have learned about a topic	Students recall what they know about a subject by creating a list of terms or ideas related to it. <ol style="list-style-type: none"> 1. To begin, the instructor asks students to take out a sheet of paper and generate a list based on a given or chosen topic. 2. Instructors ask students to share their lists. Note: Can be used before or after instruction. Focused listing need not take more than a few minutes.	<ol style="list-style-type: none"> 1. In an educational psychology course, students provide examples of defining characteristics of Piaget's stages of cognitive development. 2. In a political science course, students identify the pros and cons of a government's proposed course of action currently in the news. 	<ol style="list-style-type: none"> 1. Impose a time limit and inform students. 2. Students share their lists in small groups. 3. Students make a focused list prior to the discussion and then add to the list (correcting any prior misconceptions) at the end of the class period. 4. May be used in conjunction with the "Roundtable" strategy. 5. Students share their lists in small groups and identify the mtwo to three most important points, which they then share with the class. 6. Students brainstorm in small groups, typing their lists. Can also be combined with "write around the room" strategy. 7. Students can project their list using the screen sharing facilities.
Mind mapping (conclude in Evaluate)	Instructor gains an sense of students understanding so far Students can organise and make links between knowledge	Mind mapping is a simple technique for drawing information in diagrams, instead of writing it in sentences. The diagrams always take the same basic format of a tree, with a single starting point in the middle that branches out, and divides again and again. The tree is made up of words or short sentences connected by lines. The lines that connect the words are part of the meaning	Students are exploring the concept of human rights. Students place this concept in the centre of the map. Students then identify the related content within this concept ie. Social and civil rights, the UN and draw branches to these. These are expanded upon in the next lecture.	

3.2.2 Explore

The purpose of explore strategies is to have students deepen their understanding of key content and skills presented in your subject.

- Focus is to facilitate activities that give students the opportunity to explore the concept/skill. This should allow them to engage with problems and describe them in their own words.
- Helps them acquire a common set of experiences to share with their peers.

Strategy	Purpose	Description of strategy	Examples	Implementation Suggestions and Variations
Brainstorming	Students generate a large number of ideas for potential solutions to a problem. Students develop team learning skills	State the issue and generate ideas regarding the issue having agreed upon a time limit. Categorise, combine, refine and condense ideas Assess potential solutions	Ask students to suggest potential courses of action for a world leader in regards to a current issue. Given constraints are established by the instructor.	Ask students to not only brainstorm, but also to verbalise the relationships between the ideas. May be used in conjunction with strategies such as: Mind mapping, round table, think pair share, etc.
Think: Pair: Share				

3.2.3 Explain

The purpose of explain strategies is for students to make explicit links between content and experience

- Focus is for facilitator to provide the concepts and terms already used by the students to develop explanations for the phenomenon they have already experienced.
- Explanation follows experience

Strategy	Purpose	Description of Strategy	Examples	Implementation suggestions and variations
Peer Tutoring	Instructor determines students' comprehension of course content Students improve communication, paraphrasing and small-group presentation skills Students learn from and about their classmates	Students work in groups to solve problems, work through scenarios, deepen understandings	1. Instructor devises students into peer groups based on diverse groupings (potentially using LearnJCU data) 2. Instructor provides cases study, problem, scenario etc. 3. Students work through answers in a collaborative setting.	1. You may wish to establish group roles (timekeeper, facilitator, etc) 2. Students could use a wiki or blog to support this.
Ten Two/ Interactive Lecture Strategy	Students process information presented. Instructor and students fill in any gaps or misunderstandings. Students clarify information for one another; build on peers' knowledge	Presenter shares information for ten minutes and then stops for two minutes to encourage listeners to pair up with a partner and share their ideas.	In an U.S. History of the 20 th Century course, the instructor asks students to summarize the economic impact of the Great Depression on the North American labour market in the 1930s and 1940s.	1. Encourage students to pair up with different classmates each time this activity is carried out. 2. At the end of the information-sharing time, pairs can pair up (making groups of 4 students) to summarise the 3-5 key points or "take-aways" from the session. 3. This activity may be used when students are watching classmates' presentations. This can be effective in maintaining audience focus and provides helpful feedback to the presenter in determining whether he or she successfully communicated the points intended.
Quick Writes	Students activate their existing cognitive structures or construct new ones to subsume the new input	Quick writes ask for an instant response to a concept that has just been presented. Typically, students would be asked to do a quick write in the middle of a lecture, video, or demonstration of a mathematical procedure. The instructor chooses a suitable spot for a quick write by considering where students in previous classes have often gone wrong.	For example, during a tax lecture, a professor might pause after the initial description of the difference between a standard deduction and a personal exemption and ask students to explain the difference in their own words. Used well, the quick write provokes discussion. When two or three students read their responses aloud, it often becomes apparent that there has been no meeting of the minds on this topic and the instructor has the opportunity to probe for further misunderstanding and to help students reach a clear conception of the content.	Have students share their responses electronically in the collaborative teaching spaces
Step-by-step	Students demonstrate the strategies that they need to undertake to solve a problem	Using a 'blackboard' problem instructor asks the students to break the problem into short steps then the students fill in the steps themselves	E $8^* - 2 = 6$ S S 1. S M T $8^* - 2 = 6$ 2. M C R $8^* - 6 + 2$ 3. A C $8^* = 8$ 4. D = 5. S T D = 1	

3.2.4 Elaborate

3.2.5. Evaluate

The purpose of evaluation is to review and reflect on their learning, new understandings/skills.

- Students provide evidence of learning.



- How does your practice demonstrate attainment of the standard?
- How do you plan to transform your practice to support improved demonstration of the standard?

Explore (pre-lecture activity)

1. Read the Professional Standards by Career Stage document www.aitsl.edu.au/australian-professional-standards-for-teachers/standards/list?c=graduate

Focus questions:

What are the key differences in the characteristics of professional practice across the domains of graduate, proficient, competent and highly skilled?

What are your big questions relating to the professional standards?

Explain (face-to-face teaching)

Engage students with initial discussions (you can do this in a variety of ways – group sharing and lecturer-led discussion)

1. Answers to Engage questions
2. What are your big questions? (make note and make sure that you cover)

Three key concepts for the week (across three lectures)

- What are the professional standards for teaching?
- What key values and beliefs drive these standards?
- How can I ensure that I attain the required standard?

Active learning opportunities are presented by using:

Think, Pair, Share: How do the Professional Standards shape teacher practice?

Elaborate

Jigsaw Activity: Students are organised in groups. Each group is assigned a particular standard and given the elaborations of these. Students create a definition of 'best practice' of this standard and compile a list of possible evidence that could be used to demonstrate this standard.

Evaluate

Students preview the Standards Support Resources and discuss the ways in which the resources could further develop understanding of the Standards or support professional learning. Complete the Learning Pathways Activity table to map the use of these.

3.2.6.3 Blended Learning Design for Occupational Therapy

Topic: Introduction to occupational therapy

Engage

Post OT vs PT YouTube link (this is a trigger that problematises the work of OT)

Oppositive about the standards (Smith) link (220(a)14(y)90T)

compiaed s2-6whth ihesaPT?TJ 0 Tw T -1.852 TD [(Tstudents)-0(to)eat anssoiaed beat ng for the week d berg 1(tuolectur)12(es-25())TJ

Appendix B

Audit of current practice

The learning intent drives the selection of technological tools. Audit your current use of online tools using the following:

Function	Activity	Currently used
Online Learning and teaching	Recorded lecture	
	Webcast	
	Online virtual classroom (Collaborate)	
Teacher/student communication	Email	
	Announcement	
	Discussion forum	
	Online chat (synchronous)	
Individual activities	Re active journal (blog or wiki)	
	ePortfolio	
	Online practise quiz (formative)	
Student collaboration	Discussion, debate, role play (using discussion forum or collaborate)	
	Small group work (using wiki or online meeting room)	
	Creating and sharing learning resources (using mind maps of social bookmarking sites)	
Assessment	Online tests	
	Electronic submission of student work	
	Wiki, blog and other individually created or group created work	
Student resources	Course reading	
	Online study guide	
	Web link	
	Online self-paced activity	
	Online calendar	

References

- Bath, D., & Smith, C. (with Steel, C.) (2004) A tutor's guide to teaching and learning at UQ. Brisbane, Australia: The University of Queensland. Available at: <http://www.tedi.uq.edu.au/downloads/TutorTrainingManual.pdf>
- Biggs, J.B. (1999). Teaching for quality learning at university. Buckingham: Society for Research in Higher Education.
- Bloom, B. S. (1956). Taxonomy of educational objectives. In D. Boud, D., Keogh, R., & Walker, D. (1985). Promoting reflection in learning: A model. Boston: Allyn and Bacon.
- Chickering, A.W., & Gamson, Z.F. (1987). Seven principles for good practice in undergraduate education. American Association of Higher Education Bulletin, 39 (7), 3-7.
- Churches, A. (2008). Bloom's digital taxonomy. Available at: <http://edorigami.wikispaces.com/le/view/bloom%27s+Digital+taxonomy+v3.01.pdf>
- Fink, L. Dee. (2005). A self-directed guide to designing courses for significant learning. Available at: <http://www.nkconsulting.info/les/Fink2005SelfDirectedGuideToCourseDesign.doc>
- Gerbic, P. (2006). To post or not to post: Undergraduate student perceptions about participating in online discussions. Who's learning? Whose technology? Proceedings of ASCILITE, Sydney, December 2006. http://www.ascilite.org.au/conferences/sydney06/proceeding/pdf_papers/p124.pdf
- Herrington, A., Herrington, J., Oliver, R., Stoney, S. & Willis, J. (2001). Quality assurance of online courses: The development of an instrument to audit online units. Available at: <http://www.ascilite.org.au/conferences/melbourne01/pdf/papers/herringtona.pdf>
- JISC (2009). Effective practice in a digital age: A guide to technology-enhanced learning and teaching. Available at: <http://www.jisc.ac.uk/media/documents/publications/effectivepracticedigitalage.pdf>
- Oliver, R. & Herrington, J. (2003). Exploring technology-mediated learning from a pedagogical perspective. Journal of Interactive Learning Environments, 11(2), 111-126.
- Smith, C.D. (2008a). Building effectiveness in teaching through targeted evaluation and response: connecting evaluation to teaching improvement in higher education. Assessment & Evaluation in Higher Education, 33(5), 517-533.
- Smith, C. D. (2008b). Design Focused Evaluation. Assessment & Evaluation in Higher Education, 33(6), 631-645.
- Wild, M. (2007). White Paper Blending Learning – what's in the mix? Nine Lanterns. Available at: www.ninelanterns.com.au/les/9L/pdf/Blended-Learning.pdf

