

Evaluating Online Assessment Practice in Art and Design

Simon McIntyre

COFA Online <www.cofa.unsw.edu.au/online>, *College of Fine Arts (COFA)*

Abstract

Online learning is a constantly evolving area and, as a result, methods of assessing student learning are constantly being developed and improved. This is particularly true for online learning in art and design. There is currently little literature on online pedagogical approaches that are specific to the visual arts, and because of the unique nature of this area, current online learning theory and assessment (which is often based on less visual disciplines) is not always entirely appropriate. COFA Online, an academic unit at UNSW's College of Fine Arts, was established in 2003 to train academic staff and industry professionals in writing wholly online undergraduate and postgraduate courses in disciplines related to art and design, and to develop online pedagogical approaches specific to art and design.

Assessment is a vital component of these new online approaches. How can disciplines traditionally taught in a face-to-face studio environment be effectively taught and assessed in a fully online environment? This case study explores this question in relation to a typical COFA Online course, attempting to identify successful assessment practices in online art and design education, highlighting areas of online assessment strategy that require further refinement, and gauging the impact on the

quality of student learning. The study also demonstrates how a systematic approach to the evaluation of teaching and course design can form part of a cycle of continual improvement in these areas.

Guidelines on learning that inform teaching demonstrated in this case study

Engaging students in learning

1. Effective learning is supported when students are actively engaged in the learning process.

Contextualising students' learning experiences

5. Learning is more effective when students' prior experience and knowledge are recognised and built on.

Designing an engaging, contextualised, and inclusive curriculum

10. Clearly articulated expectations, goals, learning outcomes, and course requirements increase student motivation and improve learning.

Teaching an engaging, contextualised, and inclusive curriculum

13. Learning can be enhanced and independent learning skills developed through appropriate use of information and communication technologies.
14. Learning cooperatively with peers – rather than in an individualistic or competitive way – may help students to develop interpersonal, professional, and cognitive skills to a higher level.
15. Effective learning is facilitated by assessment practices and other student learning activities that are designed to support the achievement of desired learning outcomes.
16. Meaningful and timely feedback to students improves learning.

Context of the learning and teaching practice

Since 2003, COFA Online has worked with a community of enthusiastic academic staff and respected industry professionals to develop a wide range of wholly online courses in creative disciplines such as graphic design, interactive design, sculpture, textile design, creative thinking, spatial and urban design, art curation, fashion theory, traditional drawing and digital illustration¹. From one course with 40 students in 2003, COFA Online now oversees a suite of 30 courses taught by 25 teachers, with over 400 students per session in 2006.

At COFA Online, our goal is to strive continually to improve the online student learning experience for students who choose to study online—and to dispel the myth that online education is inherently inferior to more traditional face-to-face learning

¹ For full range of courses, visit the COFA Online website: <<http://www.cofa.unsw.edu.au/online>>.

and teaching approaches and environments. To achieve this, COFA Online maintains a community of practice called the COFA Online Fellowship, where online teachers in training and also those who have graduated from our training program share experiences and online teaching techniques in a supportive collaborative environment. The knowledge shared within this network, coupled with current online teaching theory and our own pedagogical approaches, has enabled us to constantly evaluate and reflect upon our online assessment practice in art and design disciplines.

This case study exemplifies COFA Online's philosophy and practice of critical reflection by examining assessment practice in the session 2, 2005 online course COFA0202: Collaboration and Play in Interactive Design, written by Andy Polaine. I encourage readers to view the course website at https://au.omnium.edu.au/au_2005s2_unsw_gend0202, as I will be referring to specific examples within the site throughout this study.²

The structure of this interactive design and theory course is based around the concept of multidisciplinary collaborative learning, which is typical of all COFA Online courses. The assessment structure has also evolved around this concept and, as explained in this study, is tailored specifically for the online environment to evoke active engagement and participation from the students.

Although this study focuses on one particular course, it is worth noting that all of COFA Online's courses are designed with the same educational principles and basic

² Sign in as a guest by typing your name in the username field. No password is required. Collaboration and Play in Interactive Design is the name of the elective version of the course. In session 2, 2005 it was combined with the General Education version of the course called The Language of Interactivity within the same website branded with the General Education name.

structure in mind (the finer details of course structure and assessment vary depending on individual disciplines). The results of this study are by no means conclusive for all of our online courses, but it can nevertheless offer an insight into the effectiveness of our overall approach to online assessment.

Discussion of the learning and teaching practice

Course overview³

COFA0202: Collaboration and Play in Interactive Design examines the massive influx of interactive environments in our modern world, many of which form a significant part of our culture and daily lives. Many of these new forms are poorly understood, which actually poses exciting new opportunities for future designers and artists to explore uncharted territory. This online course analyses the underlying features of interactivity, combining theories of new media and play with collaborative art and design practice. In the course, students from all UNSW disciplines have the opportunity to explore and discuss the notion of interactivity in the world around them and, through peer discussion and debate, to analyse and formulate approaches that will guide them in the design of their own interactive systems and methodologies. The course usually has around 25 students organised into teams of 5. Teams are chosen to ensure that the team members are from different disciplines of study, so students can draw upon a range of experience and knowledge outside of their own.

³ The full course outline for COFA0202: Collaboration and Play in Interactive Design is available on request.

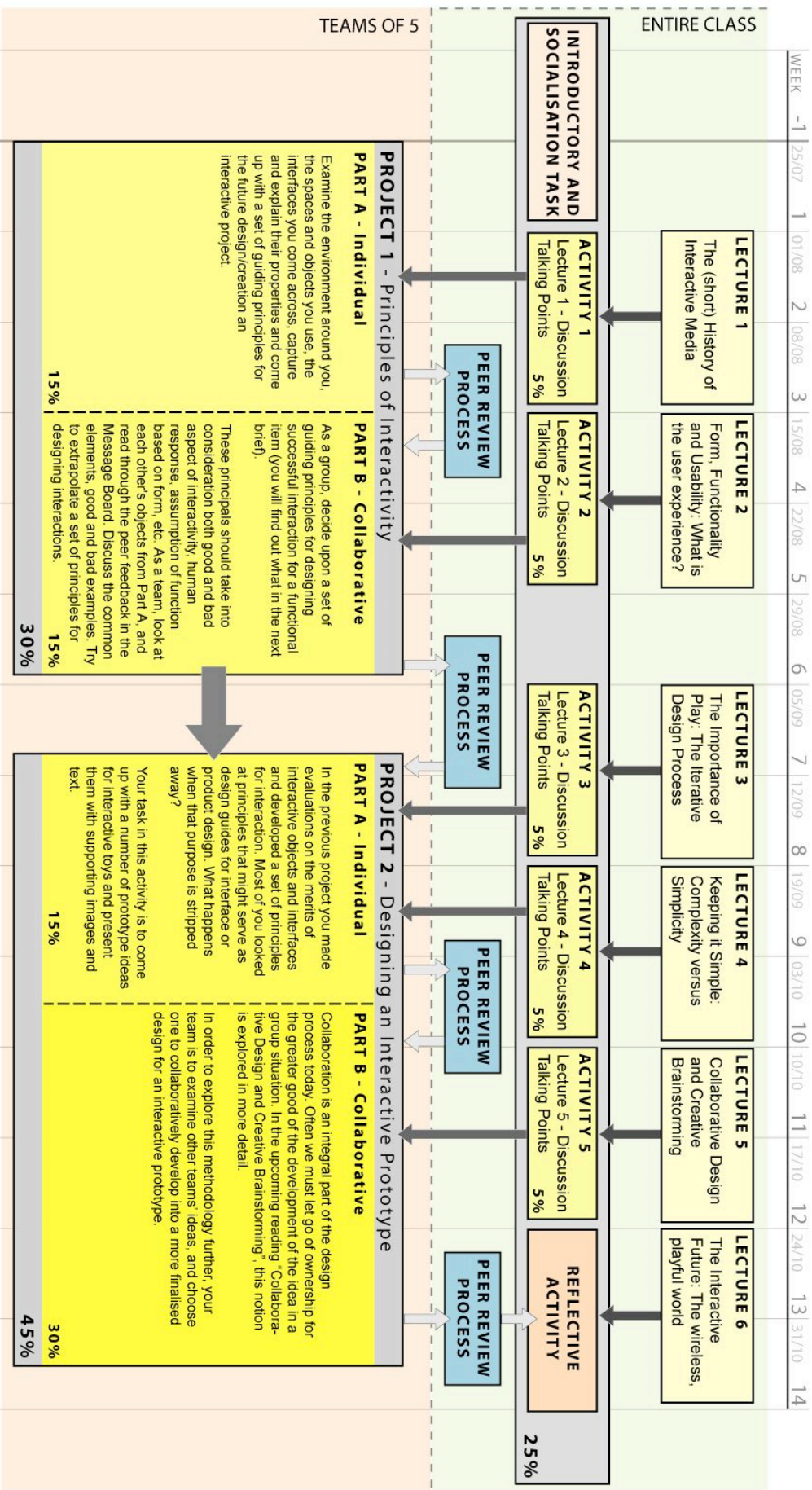
The learning outcomes of COFA0202 are for students to:

- discuss, critically analyse and place into context a wide range of interactive works
- demonstrate an understanding of the essential nature, ideas and language of interactivity
- use an iterative creative process to develop interactive projects
- work individually and collaboratively with peers to create works of interactive art or design
- propose, prototype and produce an engaging and successful interactive experience.

The approach of COFA Online to course development is based on Biggs' model of constructive alignment (1999). As part of the development process, all course elements including assessment tasks for each course must be mapped out in a timeline, or Course structure diagram, that shows the relationship of each task to the student's learning pathway and to the context of the course as a whole (see Figure 1 below).

Figure 1: COFA0202 Course structure diagram detailing the constructive alignment of course elements

COFA0202 'Collaboration and Play in Interactive Design' Course Structure



Through guided discussion, ACTIVITIES form guiding principles with which to approach team projects

As illustrated in Figure 1, the online lectures introduce broad concepts associated with interactivity. These concepts are broken down into “talking points”, which students discuss as a whole class using the online Message Board. Significant analysis and formulation of principles of interactivity takes place in these talking points, and the discussions are designed and facilitated so that the students themselves generate a set of collective criteria from the ideas set out in lectures. They then take these criteria into their small groups for systematic application in the subsequent assessment projects.

These projects enable the students to refine principles of interactivity and then implement them in a practical design exercise. After each project, students peer review other students’ work in the context of the entire class based on the governing criteria that they themselves derived from the earlier group discussions⁴. The final project requires students to generate a detailed prototype for an interactive toy—something that has no specific purpose other than to engage a user in some way⁵. Designing an interaction without practical purpose enables the students to draw on interactive theory as well as online discussions to focus on creating systems of interaction unfettered by preconceptions of specific object function. In this way, the project encourages students to apply and evaluate the knowledge and new concepts they have learned throughout the entire course⁶.

⁴ For an example, see the Message Board thread titled Project 1 – Part A Peer Feedback: <http://au.omnium.edu.au/au_2005s2_unsw_gend0202/mod/messageboard/thread.php?thr_id=8>. (You must login as a guest to see the thread.)

⁵ The assessment project brief for Project 2B – Designing an Interactive Prototype is available on request.

⁶ Final student works may be viewed in the online Gallery titled Project 2 – Part B Final Interactive Toy Designs: <http://au.omnium.edu.au/au_2005s2_unsw_gend0202/mod/galleries/gallery.php?gix_id=4>. (You must login as a guest to see the gallery.)

As Figure 1 and the discussion above suggests, the assessment activities cannot really be distinguished from learning activities; that is, they are designed as assessment *for* learning rather than assessment *of* learning. Moreover, none of these assessment activities is a stand-alone task, because each is integrally connected to the resource and lecture material, and to the other assessment tasks. These assessment tasks have a summative function, in that they test students' knowledge and skills, and marks earned from them contribute to students' final results. They are, however, primarily formative, with each designed to complete "a piece of the learning jigsaw puzzle" for the students. That is, each one builds knowledge and experience that is required for the next activity, and each task connects to the next one until the entire picture of learning is revealed towards the end of the course.

Lectures and assessment project briefs are released only when they are relevant to the students' learning, which helps students focus on solving one piece of the learning puzzle at a time. This also means that all students are thinking and reflecting upon the same ideas at the same time, which adds to the levels of participation and depth of thought in the collaborative online learning community. Commonly referred to as "scaffolding", this strategy allows the students to progress to deeper levels of understanding step by step with the support of their peers:

Integrated into pedagogical practice, scaffolding is intended to motivate the learner, reduce task complexity, provide structure and reduce learner frustration ... The most important point about scaffolding is that it engages the learner actively at his/her current level of understanding until the point where the support is no longer required. (Marshall and McLoughlin 2000)

Scaffolding is most often used in traditional face-to-face learning and teaching practice, but it has translated extremely well to the online learning environment (not all such practices do, because online pedagogy has a completely different social and interactive dynamic). Indeed, scaffolding is the foundation of our online pedagogical approach.

In the discussion that follows, I present the methodology and results of an evaluative study conducted to determine the effectiveness of this course design, in particular the assessment strategy.

Methodology

To evaluate the effectiveness of the course's assessment strategy, I will be reflecting upon the following aspects of the assessment:

1. the validity of assessment tasks related to the learning outcomes
2. the assessment's impact on student learning
3. the reliability of the assessment.

Throughout this case study, I intend to triangulate data from three different sources where appropriate to ensure that the evaluation of the above aspects is as reliable as possible. "Triangulation ... has come to be associated most clearly with the use of more than one method for gathering data and an explicit concern for comparison of different sets of data" (Hammond and Wiriyapinit 2005). In this case, the triangulation process is most relevant to aspect 2 (the assessment's impact on student learning). Aspects 1 and 3 (the validity and reliability of the assessment) are

considered in relation to only one set of data—teacher reflection—although future research is likely to involve additional data sets.

The three different sources of data informing the evaluation process discussed here are:

- **Teacher observations:** As an online teacher, my own assessment of the effectiveness of the course is important, because I have an overall view of the course as a whole and detailed knowledge of the aims of the assessment. Of course, this opinion may be biased, so other sources of data are required to ensure the validity of the outcomes.
- **Student experience:** Students' perspectives on their own learning experiences are also an important indicator of the validity and impact of assessment tasks. Student reflection on and discussion about the assessment will be drawn from online discussions in the course.
- **Online course and teaching evaluations:** Results from the latest COFA Online quantitative and qualitative online course evaluation questionnaire for COFA0202 (session 2, 2005) will be examined and compared with the other sources as a method of corroboration.

Triangulation of these three sources of data allows me to compare and contrast findings, validating the assessment approaches used in this course in regard to the three aspects identified above or indicating areas that need improvement. On a larger scale, it is hoped that any effective techniques documented here, or other findings about how to improve assessment, can be used by COFA Online teachers and readers

as the basis for further investigation into their own assessment practices. This sharing of information is a core component of the COFA Online community of practice.

Evaluation of aspect 1 (validity of the assessment tasks related to the learning outcomes) by data source 1 (teacher observations)

A constructively aligned course uses appropriate forms of assessment, where “appropriate” means that the assessment tasks allow students to demonstrate that they have achieved the objectives nominated in the course’s learning outcomes. Formative assessment usually has a critical role here. Indeed, as Harlen and James (1997) argue, too much summative assessment is generally inappropriate, because it does not usually give students opportunities to develop and practice knowledge and skills before they are tested on their achievement of such. I feel that previous versions of COFA0202 did not incorporate a useful proportion of formative assessment. This is not because the course was poorly designed initially, but rather because we have continually observed and evaluated our online teaching and assessment approaches, and have gradually evolved the assessment structure based on what we have learned over time. From my recent teaching experience in the course, I believe that the current revised assessment structure has a balance between, and an appropriate use of, both formative and summative approaches, which allows students to gradually build on their own knowledge, research and collaborative learning experiences, to peer review other students’ work and to reflect upon the relevance of what they have learned, before moving on to the next task armed with a stronger comprehension of the subject matter.

A summary of the alignment between learning outcomes and assessment tasks for this course is shown in Figure 2 below. This table illustrates how the learning outcomes of the course are addressed in a formative way through the discussion and project-based assessments.

Figure 2: Relationship between assessment tasks and learning outcomes in COFA0202

		COURSE LEARNING OUTCOMES				
		Discuss, critically analyse and place into context a wide range of interactive works	Demonstrate an understanding of the essential nature, ideas and language of interactivity	Use an iterative creative process to develop interactive projects	Work individually and collaboratively with peers to create works of interactive art or design	Propose, prototype and produce an engaging and successful interactive experience
DISCUSSION POINTS (entire class)	TALKING POINT 1 Cognitive aspects of interactivity	X	X			
	TALKING POINT 2 Affordance, function vs emotion	X	X			
	TALKING POINT 3 Can play be a useful interactive tool?	X	X			
	TALKING POINT 4 How can complexity be managed?	X	X			
	TALKING POINT 5 How to apply collaborative practice to current project	X	X			
PROJECTS (INDIVIDUAL AND GROUP)	PROJECT 1 - PART A Discovering the Principles of Interactivity (Individual)	X	X		X	
	PROJECT 1 - PART B Discovering the Principles of Interactivity (Group)		X	X	X	
	PROJECT 2 - PART A Designing an Interactive Prototype (Individual)		X		X	
	PROJECT 2 - PART B Designing an Interactive Prototype (Group)	X	X	X	X	X

Compared with previous versions of the course, I believe this revised assessment approach has yielded a higher level of student engagement and understanding of the subject matter. But to obtain a more balanced view, the students' thoughts about their experiences of assessment and learning must also be considered in the process of data triangulation.

Evaluation of aspect 2 (impact of assessment on student learning) by data source 1 (teacher observations)

One clear indicator of the assessment's impact on student learning is the quality of, or level of achievement in, the assessment projects, in particular the final one, which is a chance for the students to put all of their acquired experiences and theory into practice.

The progressive or formative style of assessment used in this course is designed to foster a deep learning approach (Biggs 1999) among the students. We hope that, through the projects, students gain a working understanding of ideas and principles about interactivity, and can abstract these into unique design situations. Although Biggs' deep versus surface learning model is a good broad indicator of the type of student learning taking place, I have found that a more detailed model such as Bloom's Taxonomy is more useful when reflecting on the quality of student work in relation to each assessment task. (Biggs' SOLO taxonomy is also useful, but in this particular case, Bloom's model was more closely aligned with the learning phases students actually go through in the course.) Most of Bloom's six levels of student

learning (knowledge, comprehension, application, analysis, synthesis and evaluation) are evident in the students' work in this course. The cognitive demands of the assessment tasks are mainly focused on building the students' comprehension, application, analysis and synthesis skills through the progressive building on knowledge in scaffolded assessment tasks.

Evaluation of aspect 2 (impact of assessment on student learning) by data source 2 (student experience)

Looking at the impact of the assessment tasks from the student perspective, it appears that most students enjoyed the tasks and were able to manage their time effectively in the course between reading lectures, group discussion, and individual and teamwork. One example of the level of their engagement can be seen in the discussion thread titled "What does interactivity mean to you?" in the online Message Board⁷. This particular example showcases the depth of thought, application of existing knowledge and active peer interaction that existed in the course.

A Message Board thread, "Reflection and feedback"⁸, was set up for student reflection at the conclusion of the course. Additionally, because the final lecture was a narrative about the collaborative design process, I also set up a discussion thread called "Reading 5 – Talking point", which allowed the students to reflect on their experiences of group work in this course in the context of their other collaborative

⁷ See <http://au.omnium.edu.au/au_2005s2_unsw_gend0202/mod/messageboard/thread.php?thr_id=2>. (You must login as a guest to see the thread.)

⁸ See <http://au.omnium.edu.au/au_2005s2_unsw_gend0202/mod/messageboard/thread.php?thr_id=16>. (You must login as a guest to see the thread.)

learning experiences⁹. I encourage the reader to view the thread online, because it gives a unique insight into the student learning experience and the impact of the course and assessment. I have highlighted some relevant posts from the students below.

Positive student reflections included the following:

- *The course was definitely interesting, it made me think about interactivity in a new light and even helped me out with some other subjects. The projects allowed creativity which was great!*
- *I learnt a lot in that this course has made me think and plan a lot more rather than usually where I jump straight in to the practical stuff.*
- *For this course, I found the discussions and message boards were full of things that I could not have thought of on my own – everyone brings with them different perspectives and experiences that we can all learn from, some we perhaps may not have yet encountered. Working online also has meant that we have somewhere to leave a work in progress, but everyone involved has access to it – and working online also offers the opportunity to work across suburbs –in our little uni community and time differences, which will be handy in the future if we are working with interstate/overseas clients or companies.*
- *I thought this course was pretty neat in the way it introduced each concept for discussion.*
- *Course content: Length and depth of content quite good. At no time did I fall asleep perusing the Readings. Assignments/Projects: Quite interesting and entertaining. A good change from all my other subjects.*

⁹ See
<http://au.omnium.edu.au/au_2005s2_unsw_gend0202/mod/messageboard/thread.php?thr_id=18>.

- *I think interactivity and collaboration are essential parts to each other, or at least will eventually feature with each other along the design journey. I think working with others is enhanced when interactivity is introduced, eg in terms of the internet as it opens up other opportunities and potential design ideas as we reach across a larger scale globally ...*
- *I have had some great experiences doing collaborative work in this course. It did involve letting go of ownership of our designs however it allowed for us to explore different ways of making meaning through our work. We communicated through words as well as images, and through reworking images which was great because we understood the same language – design.*

Negative student reflections included the following:

- *I think it would be even better by having email notifications of new assignments, lectures, links etc.*
- *It was definitely a different learning experience. It would have been beneficial having email notification of assignments. I often logged on and went straight to the readings or message board not aware of new assignments. It just might be something extra to remind the more forgetful students like me! Other than that, the structure of the course was good i.e. the readings and talking points and their relation to assignments.*
- *From this course I realised that to encourage collaboration Verbal communication is very important. It could be considered “MUST” for some people but not for everyone I guess. This is because I felt a limitation only*

communicating through written document. (This could only be my English problem.)

The notion of assessment *for* rather than *of* learning has been an important factor in creating a broader impact in terms of learning techniques and critical thinking skills among the students. Moreover, some students were able to apply what they had learned (if not actual content or knowledge then the process of working systematically) to other areas of their work and study, which seems to validate the idea that the collaborative aspects and a scaffolded approach to assessment allowed them to achieve more than they otherwise could have.

Many online educators support the view that assessing developmental processes and the understanding of fundamental principles is often more important and relevant than assessing factual knowledge. Indeed, the former becomes even more pertinent and important in the online learning environment:

Current assessment procedures in higher education are long overdue for a rethink. They are particularly ill suited to the digital age in which using information is more important than remembering it, and where reusing material should be viewed as a skill to be encouraged, not as academic plagiarism to be despised. Many online courses are leading the way in devising assignments and assessment procedures which reflect the call for higher education to teach IT literacy, team working ability and knowledge management skills. (Mason 1998)

Although the student comments seem to support my initial opinion of the effectiveness of the assessment structure in this course, it does seem that there is room for improvement in the administration of the assessment, such as assessment notification, and that language barriers might cause some students difficulty when they are working collaboratively.

Evaluation of aspect 2 (impact of assessment on student learning) by data source 3 (online course and teaching evaluations)

The quantitative and qualitative data gathered from students in the online course and teacher evaluations from session 2, 2005 were extremely useful in constructing a picture of the effectiveness of the course structure, assessment tasks and online teaching pedagogy¹⁰. The questionnaire used in the evaluation was based on the CATEI system¹¹ used to evaluate all face-to-face courses at UNSW. This was done to ensure that the evaluation results would be comparable to all other UNSW courses. A summary of the quantitative data collected from the evaluation is presented in Figure 3 below).

Figure 3: GEND/COFA0202 Quantitative online course evaluation summary

¹⁰ The full evaluation report (including the questionnaire) for COFA0202 is available on request.

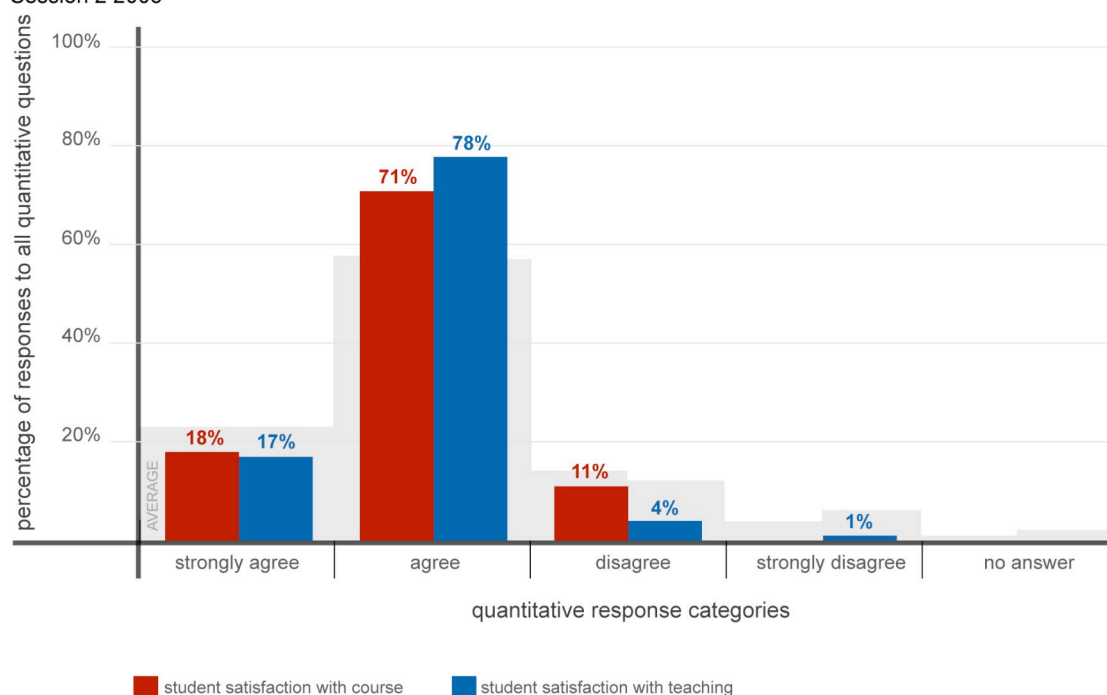
¹¹ See <<http://www.unsw.edu.au/learning/pve/catei.html>>

GEND/COFA0202

QUANTITATIVE STUDENT EVALUATION SUMMARY

Session 2 2005

evaluations returned	15	68%
no. of enrolments	22	



The results of the evaluation were very encouraging, confirming student satisfaction with the aspects of the course assessment discussed above.

The following aspects of the course related to assessment scored very well in the evaluation (that is, a majority of students “strongly agreed”):

Q4. The online course provided effective opportunities for active student participation in learning activities.

Q7. The assessment methods and tasks in this online course were appropriate given the course aims.

The course also performed well in the following areas related to assessment: (that is, a majority of students “mostly agreed”):

Q1. The aims of the online course were clear to me.

- Q3. The online course was challenging and interesting.
- Q5. The online course was effective for developing my thinking skills (for example, critical analysis, problem-solving).
- Q8. The online projects, activities and assessment tasks were well structured.
- Q9. This course improved my ability to work independently.
- Q10. I feel that I have developed a good understanding of the course content.

The results also highlighted, however, some aspects of the assessment that need improvement. The clarity of the overall structure of the assessment was not apparent to all students, as noted by several in their qualitative feedback. For example: “It was not very clear, and required us to log in to check if an assessment has been released.” Of course, it can be argued (and it is stated in the course outline) that regular participation in the course is required, so the students should be able to receive notification from the online notice board; however, given everyone’s busy schedule, some kind of external notice would keep students on track with their assessment tasks.

A few students also criticised the lack of timeliness with which they received feedback on assessments tasks, and this needs to be addressed for next session. We will examine various refinements of the assessment tasks that will reduce the marking and administration load for the teacher, while not reducing the educational value of the assessment. One potential solution would be to implement peer assessment in some of the larger group assessments. This is different from the peer evaluation that is currently employed in the course, because it would involve students assigning grades to each other’s work rather than just offering feedback. It must be remembered,

however, that overall the course structure is working well, and any change should not lessen the effectiveness of the formative assessment strategy already in place.

Some students also noted that the course outline states percentage values for each assessment task but does not contain enough specific information about the purpose of those tasks. This is true: the course structure diagram (Figure 1) was not issued to the students in the course outline (because it was originally designed for use as a development tool by COFA Online). It does seem that it should be included in the course outline and issued at the beginning of the course so that students have a more accurate idea of the overall assessment scheme.

Evaluation of aspect 3 (the reliability of the assessment) by data source 1 (teacher's observations)

One indicator of the reliability of the assessment tasks is the level of engagement and participation of the students over the course of the entire session. Do the assessment tasks produce creative, thoughtful work, or do they result in confusion or poorly executed projects? On the whole, the students participated very actively and regularly in both individual and groups aspects of the discussion and projects¹². The analysis, application of knowledge, and overall quality of the assessments were quite consistent across the different student groups, and indicate some level of reliability in the tasks themselves.

¹² Browse the site to see the level of student participation in the course: <https://au.omnium.edu.au/au_2005s2_unsw_gend0202>. Please note that the private team areas of the site, where all of the major work took place on the major assessment projects, are not visible to guests. Please contact Simon if you desire access.

The assessment outcomes were comparable to similar outcomes from face-to-face courses in interactive design that I have taught over the years, yet the depth of thought behind the works often being more substantial than a face-to-face course. I believe this is due to the amount of discussion and careful course structure of the students' online learning experience, and the fact that they work collaboratively on developing ideas – the collaborative process and sharing of knowledge often leading them to places they would not have arrived on their own.

The one noticeable aspect of the assessment that was not always reliable was that of group work. Collaborative peer learning is one of the central premises for all COFA Online courses, and although this works extremely well in most cases, invariably one or two students will not “pull their weight”, leaving other members overloaded and frustrated. This can have a negative domino effect on the students' perception of the entire course and assessment structure.

How to improve the facilitation of effective group work has been a consideration since I began teaching online. The improved structure of the assessment tasks has significantly reduced the number of problems in this area, but every now and then, for various reasons, students will let down their team mates, and the effectiveness of the assessment can suffer as a result.

Therefore, group work is an area that could be further improved in the assessment structure of this course. One way in which this could be done is by giving students more guidance on how to work effectively in groups, with simple strategies for organisation and conflict resolution. I am wary of overloading the students with

education literature, but perhaps a short series of points, or a set of guidelines about how to approach collaborative tasks, could be incorporated into the assessment briefs.

Another solution, which a colleague uses with some success, is peer evaluation of the group process itself. Students write a short series of points as part of their group assessment submission, detailing which students completed which tasks in the project. This makes students realise that they are accountable and cannot hide behind fellow students, and results in a marked increase in the level of equitable student participation in group projects. I will trial this in my own course next session.

Evaluation

The main points that have arisen from the triangulation of data from the three sources of this evaluation (my own observations as a teacher, the experiences of the students, and the session 2, 2005 online course evaluations) are listed below.

Aspect 1: Validity of assessment tasks related to the learning outcomes

Positive

- Learning outcomes of the course are covered in the assessment structure.
- Assessment structure is aligned with and suitable for content.
- Assessment supports learning and uses a significantly formative approach.

Aspect 2: The assessment's impact on student learning

Positive

- Students are engaged in the assessment process.
- Students are gaining a good understanding of the course content.
- Skills and knowledge gained are being applied in other areas.
- Collaborative aspects of assessment are enabling students to archive very satisfactory and often innovative results.

Negative

- Feedback to students is sometimes delayed because of heavy marking loads.
- Course documentation does not currently supply an effective overall context for the assessment tasks.

Aspect 3: The reliability of the assessment

Positive

- Levels of student participation and critical thinking are high.
- Projects are consistently meeting the learning objectives of the course, demonstrating good levels of comprehension, analysis and synthesis.

Negative

- Group work in assessment can be problematic and unpredictable.

It is evident that the formative assessment structure in COFA0202: Collaboration and Play in Interactive Design is effective in assessing the learning outcomes of the

course, and also in providing the students with a collaborative, peer-learning environment that is conducive to deeper learning. There are ways in which the course and its assessment could be improved, however, to make the assessment more effective for a broader range of students.

Continual improvement cycle

This section enumerates the recommendations for improvement that have emerged from the evaluation activity described in this case study, and the actions that have been taken subsequently.

Recommendation: More detailed documentation about assessment details must be supplied to the students at the beginning of the course so that they can better contextualise their learning pathway through the course.

Action: Following the recommendations of this study, COFA Online now issues students with more detailed descriptions of assessment tasks in the course outline, and also supplies the course structure diagram so that students can plan their study time more effectively.

Recommendation: The assessment tasks must be examined to see whether more efficient methods of marking can be employed that will not compromise the pedagogy of each task. This might allow more time for me to offer feedback to student projects in a more timely manner that will be of greater benefit to the students.

Action: Peer feedback has proven to be an engaging and effective means of giving students feedback on their work while a teacher is marking projects. In all COFA Online courses, students are now encouraged to give feedback on each other's work (as part of an assessable project's requirements), in dedicated blocks of time in which a teacher is marking projects. This peer feedback is informed by the principles and criteria that students have developed and learned through their discussions and cumulative experiences in the course.

This not only enables students to confidently move forward during the time that a teacher is marking projects, but also allows them to reflect on what they have learned, and to apply this knowledge in the constructive criticism of their peers' work.

Students must be able to justify their comments based upon what they have learned in the course, and must do so under the watchful eye of the lecturer who will facilitate these discussions. The lecturer may then give the students individual feedback within a week's time knowing that the students have in the meantime been validating the knowledge that they have gained in the course to date before moving on to new topics.

Recommendation: Some kind of simple, yet informative guidelines on group work could be incorporated into the project briefs, or uploaded as an online resource for the students, to reduce the effects of a dysfunctional group on assessment. Collaboration with the UNSW Learning and Teaching Unit may reveal some starting points for this.

Action: The specific nature of group work varies from online course to online course, because different disciplines have unique requirements for such tasks. Further discussion with students about the issue has revealed, however, that one of the biggest

perceptions of group work seems to be that “non-participating students will be able to hitch a free ride”, gaining equal marks for a disproportionate amount of effort in the group.

It seems the experience of face-to-face group work for many students in the past has been one where the lecturer only ever sees the end product of the group’s efforts, and is not witness to the collaborative processes and individual efforts of each of a group’s members over time. Online courses are completely different in this regard because every step of the group collaboration process is recorded online, leaving the lecturer clear evidence of the amount of effort each student is contributing. The lecturer is also an integral part of the group-work process online, being present and offering advice and guidance during the process.

COFA Online has since developed and implemented group-work policy and documentation, which clearly informs students of the advantages of online group work. Although there still needs to be more development in online group-work practice in some courses, a majority of cases has seen the level of student anxiety and dissatisfaction with group work reduce because students are aware that they can no longer gain reward without consistent and equitable effort.

Concluding remarks

Online education is constantly evolving and changing as technology, but more importantly online pedagogy, develops. The evaluation process documented in this case study represents an invaluable lens for reflection through which we have

critically examined the assessment structure and student learning within COFA0202. It has also allowed us to reflect on the essential and symbiotic relationship between online teaching techniques and assessment structure without which online collaborative learning environments would not function. Assessment and teaching practice cannot be viewed as two distinct entities, because both inform and sustain each other. The findings of this case study have helped to inform my personal online teaching practice, as well as revealing key areas in online assessment that require further refinement for the continual improvement of the student learning experience.

The digital revolution has had an effect on the ways that students are learning. We *must* ensure that a carefully considered, systematic approach of intertwining and aligning online course structure with specifically tailored teaching approaches is adopted by institutions to ensure that the effect is always a positive one.

Quick tips for learning and teaching

One of the most useful and critical tips I could offer to anyone contemplating or already teaching online is to *talk to others who are teaching online*. If possible, become part of a community where you can share ideas and experiences. It can dramatically improve your teaching in a fraction of the time it would take you to realise things on your own.

Don't be afraid of trying something new—be flexible in your teaching approaches and be open to change, particularly in an emerging field such as online learning. We have

often found at COFA Online that, although helpful, existing online learning and teaching theory is not always appropriate for the art and design context. So with the help of our peers, we have tried new directions and developed our own approaches.

In a changing field such as online learning, it pays to *never rest on your laurels in terms of teaching and learning approaches*. The online learning environment, along students' expectations and fluency with new technology, demands constant evaluation and reflection to ensure that students receive the best learning experience.

Finally, the most critical point to consider in any online learning scenario is that *technology should not dictate pedagogy*. Some online learning endeavours allow the function of the software they are using to govern the method of teaching. This can result in poor course structure, isolated students and an experience more like that of an electronic file depository than a vibrant active learning community. Of course technology is important, but software has usually been created by programmers, not educators. Design your course structures first and then find the simplest way to facilitate this online. More “bells and whistles” in online learning environments do not always equal a better educational experience. The technology should be as invisible as possible.

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Contact

Simon McIntyre

Associate Lecturer/Online Course Coordinator

COFA Online <<http://www.cofa.unsw.edu.au/online>>

College of Fine Arts (COFA), UNSW

Greens Road, Paddington

Sydney NSW 2021

T. 50631

M. 0401 038 567

E. s.mcintyre@unsw.edu.au