"Okay, but what does it look like?" Building staff capacity in online learning design through role modelling

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Designing for online learning requires staff to rethink their approach to teaching and learning. A key challenge in this reconceptualisation is envisaging what this new teaching context might 'look like'. In this paper, we describe the development of a self-paced online staff capacity building resource, which modelled good-practice online learning design principles and assisted staff to reconceptualise teaching through experiencing premium online learning.

Keywords: curriculum innovation, online learning, professional development, capacity building

Teaching and learning in higher education are changing significantly due, in part, to the influence of digital technologies. Responding to this digital disruption often means teaching staff need to rethink the way in which they have taught, and the way they understand how students learn. Yet for many, envisaging what this new online teaching context may 'look like' is difficult, as teaching is strongly influenced by an educator's own learning experiences (Richardson, 1990, 1996) which are likely to have been predominantly face-to-face and teacher-centric (Goodyear, 2015). This paper describes how we* designed a self-paced online staff capacity building resource that modelled the online learning design that we were asking staff to adopt. The resource put the teacher in the position of the learner to provide an experience of premium online learning and help teachers reconceptualise what higher education teaching could 'look like'.

Background to the program

The capacity building resource was developed as part of a major curriculum innovation project that aimed to re-design the online learning experience for both on-campus and online students. The project involved academic staff teaching in three courses across two faculties working together with a team of learning designers and digital resource developers to co-create online learning experiences complemented by active and collaborative face-to-face learning activities where relevant. Eight units from each course were selected for redevelopment over the course of three consecutive teaching periods. For each unit, a learning designer worked with the academic in charge of the unit, and the wider teaching team as appropriate, to redevelop learning materials, ensure constructive alignment and provide ideas and suggestions on how to structure learning in the online environment. Students utilised these materials either wholly online, or in a flipped-classroom model depending on their study mode. In taking a multidisciplinary team approach, the learning designer also liaised with the digital resource developers and other university staff, including liaison librarians and digital accessibility experts, as required.

The learning design approach drew heavily on Diana Laurillard's (2012) Conversational Framework which utilises technology to create activities that build knowledge and skills in an iterative way while creating opportunities for teacher-student and student-student interactions. The approach was underpinned by our institutional policy around premium learning and teaching. To assist staff in the design and development process, we clustered these principles into five learning design themes briefly described below:

- **Learning is scaffolded**
  A clear narrative sequence communicates the relationship between activities, tasks and learning outcomes. This alignment creates a consistent and integrated learning pathway that fosters deep learner engagement.
- **Learning is activity-focused**
  The learning materials include clear 'calls to action' and a mix of learning activities that lead to defined summative assessment tasks. Learners use active investigation to develop skills and knowledge and explore key concepts in authentic professional contexts.
- **Learning is feedback-focused**
  There are multiple opportunities for formative feedback from staff and peers, through activities and assessments, so students can improve as required. Students have opportunities to evaluate their own and others' work in order to develop evaluative judgement. Student learning progress and achievement is monitored and acted upon to maximise success and improve curriculum design.

- **Learning is supported**
  Inclusive learning experiences and environments are designed to accommodate student diversity, and create equivalent opportunities for academic success for all learners in rich online and located learning activities and spaces. **Learning is supported** by student services which enable participation and success, academic support services to develop underpinning knowledge and skills, and high production-value learning resources.
- **Learning is social**
  Students are welcomed into a respectful, vibrant learning community with multiple opportunities for dialogue and interaction with teaching staff and fellow learners. Learning resources and activity sequences are designed to highlight that the teacher guides and facilitates student learning that is both self-directed and collaborative with peers.

Challenges in implementing curriculum redesign

Laurillard (2012) conceptualised learning as a dialogue between student and teacher, deepened by conversations between the student and their peers. Conversations with peers allow students to clarify, explore, contextualise and extend knowledge while the teacher's communications guide the learning journey by showing students how the teacher understands and acts on knowledge, and designing opportunities for students to test and clarify their own understanding against that of the teacher (Laurillard, 2012). A key aim of the project was to design for learning using these principles in order to transform the online unit site into a space for interaction and engagement between student, teacher and peers, rather than a simple repository of information. This concept of the unit site as an active space for interaction was often difficult for academic staff to visualise as they found it hard to imagine something *other* than what already existed in the online space. Anecdotally, co-creating this shared understanding, rather than working towards a pre-defined end goal was one of the biggest challenges in the design process.

Implementing the learning design principles described above required academic staff to reconceptualise their approach to teaching and learning, often moving away from the 'traditional' (e.g., face-to-face, teacher-centred, synchronous) approaches they likely experienced as students themselves . Despite a substantial body of literature showing that a student-centred, active approach is more effective for learning (Ramsden, 2003), reconceptualising and changing teaching practice is difficult (Richardson, 1990). A teacher's approach to teaching is heavily influenced by their own learning experiences, discipline and previous teaching practice (Richardson, 1996; Singh & Hardaker, 2014) and reconceptualising their practice requires more than the development of new pedagogical knowledge. To reconceptualise their approach, teachers need to be able to observe, experience and test a new approach, with support from peers and experienced others (McLoughlin, 2000; Osika, 2006).

The curriculum redesign also required other changes in the way the teachers worked. For example, timelines were different, with learning materials needing to be prepared well in advance of teaching. Most of the academic staff had not worked with a learning designer before – although this co-design approach is an important part of supporting academics to meld their subject matter expertise with pedagogical knowledge to effectively support student learning (Osika, 2006), it can at times be uncomfortable as role boundaries are negotiated in this so-called 'third-space' (Whitchurch & Law, 2010). The flexibility of the learning design and the need for this to be contextualised to the discipline meant that the final unit design was variable and uncertain, creating a further challenge in envisaging what the new unit site might 'look like'.

Developing an online resource to build staff capability

To address these challenges, we created a unit site that modelled the learning design to assist staff to visualise this end goal. The resource was designed to role-model the learning design principles in action and provide teaching staff with insights into what their unit site and learning design might look like, while communicating that this was only one way to undertake the design process, as it was important that the design principles were contextualised to both the discipline and unit context. Thus, the resource needed to articulate a clear vision and goals, while being flexible enough to accommodate different disciplines and levels of expertise and experience. In addition, we were conscious that staff outside of the innovation project were keen to apply the learning design as part of their own curriculum renewal processes, therefore we needed to create a capacity building resource for multiple audiences. By designing and hosting this resource on the University learning management system that teachers and students use for their own teaching and learning respectively, we hoped to allow teachers to more easily envision how these principles could be applied to their units and learning materials. The resource also provided examples of how academic staff involved in the project had already enacted the learning design in their units.

Beginning with identifying the learning objectives, we then employed a number of strategies to bring the learning design principles to life and model for staff what these might look like. These strategies are discussed below, in relation to each principle.

Learning is scaffolded

The resource was structured into a sequence of modules with the following themes:

- Start here: an opportunity to introduce the project team and provide context to the innovation project strategy delivered by the Deputy Vice-Chancellor (Education)
- Topic 1: a general introduction to the innovation project
- Topic 2: the learning design process and how technology could be leveraged in the learning design
- Topic 3: explained and modelled each of the learning design principles in detail
- Topic 4: new ways of working together and what this approach might mean for teaching teams
- References of evidence underpinning the project and further readings.

The first module included a short video in which the DVCE articulated the vision and goals of the project, placed the project in context of curriculum renewal processes, and provided reasons why and how we were taking this approach to online curriculum design. This communication of a clear overall strategy, vision and goal, by leaders, is considered essential for successful eLearning innovations (e.g., Singh & Hardaker, 2014).

The resource utilised an animated pedagogical agent - the 'Cloud Coach' - to personalise and enhance the learning process (Clark & Mayer, 2016). The Cloud Coach explicitly identified and explained how the learning design was enacted, to help staff identify different ways in which the learning design principles might be applied in their own teaching (See Figure 1). A conversational tone for the Cloud Coach's text (i.e. voice), and human-like movements (blinking and 'thumbs-up') were used as preliminary research suggests that a conversational tone and human-like behaviours in pedagogical agents are effective for learning, encouraging learners to see the computer as a conversational partner rather than simply receiving information on the screen (Clark & Mayer, 2016).

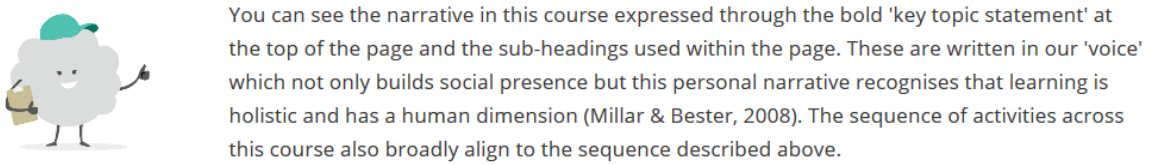

Figure 1: Sample 'Cloud Coach' explanation of the enactment of 'Learning is scaffolded'

Each step (a 'step' is a single html page) also included a list of additional resources to help staff learn more about the topic and tailor their reading to their particular area of interest. A brief (1 – 2 sentence) summary of each additional resource was provided to put each reading in context and help staff readily personalise their learning journey by choosing the resources of most use to them.

Learning is activity-focused

To demonstrate how the online unit site could be a space for activity, rather than an information repository, each step of the resource included a task, or 'call to action' to encourage learners to actively engage with the content. We used these tasks to prompt staff to reflect on how they might apply the principles to their own teaching. For example, staff might be asked to identify one area of their unit in which they might apply one of the principles, or one strategy that they might be able to implement in the next teaching period. Some tasks were linked across steps to make larger, more meaningful learning activities so that by the end of the module staff had created a draft learning design map which could then be used as a starting point for unit re-development.

Learning is feedback-focused

Teachers often do not have opportunities to discuss their teaching, and their approach to teaching and learning, with others (McLoughlin, 2000) – feedback is often limited to student evaluations. Yet these discussions enable teachers to observe, test and receive feedback on ideas and strategies and identify new approaches (McLoughlin, 2000). We created embedded discussion forums within steps and explicit prompts to enable staff to share and discuss ideas with their peers, and observe each other's activities and successes (Osika, 2006).

We also included interactive activities at the end of each module where staff could check their understanding as they progressed, with explanatory feedback to assist in the learning process and foster motivation (Figure 2).

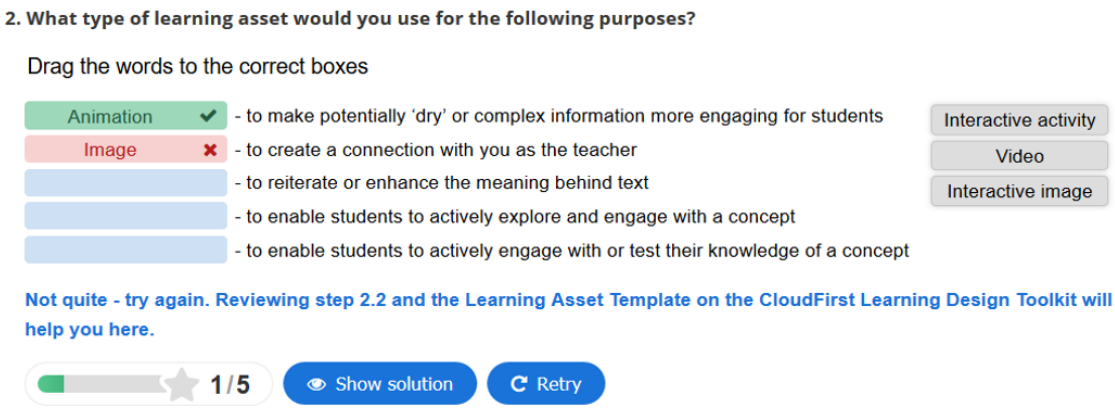

Figure 2: A sample quiz question for staff to check their understanding of the resource content

Learning is supported

Purpose-built images, interactive diagrams and videos were used throughout the site to illustrate concepts and facilitate learning. For example, a character was created for each learning design principle to act as a memory aid and to humanise these ideas (Figure 3).

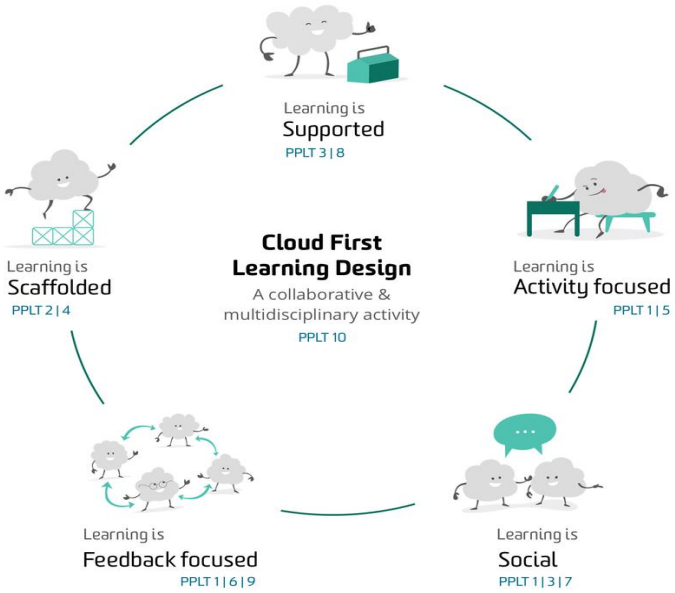

Figure 3: Characters were used to help learners remember the learning design principles

Recognising that staff would have varying levels of knowledge and experience of online learning design, the resource included links to additional resources so interested staff could easily access further information. Links to university resources and contact information for teams who could help staff build their expertise and apply the learning design principles in their own work were also provided.

To ensure accessibility of the resource, and to model the creation of fully-accessible resources, we worked with the university's Inclusive Education team to ensure that the learning materials adhered to WCAG2.1 accessibility standards. For example, heading levels were used to aid in navigation, ensured colour contrast was accessible and provided captions, transcripts and audio descriptions for all videos. Text alternatives were provided for any interactive diagram or activity that was not fully accessible by a screen-reader. The site was also audited by the Inclusive Education team, and a colleague with a vision impairment conducted a live screen-reader test of the site as part of a professional development session for the wider project team.

Learning is social

Learning is an inherently social activity, in which learners build their understanding through discussion and interaction with teachers and peers. Social interactions were facilitated through the embedded discussions and explicit discussion prompts described. We have also developed a synchronous workshop, offered both face-to-face and online, to complement these online resources, to provide additional opportunities for interaction and further model active learning and the flipped classroom approach. Additionally, academic staff were encouraged to work through the online materials with colleagues so they had a 'peer group' with whom they could discuss the content and trial new approaches and strategies.

Preliminary conclusions and next steps

A self-paced capacity building resource for staff that modelled online learning design was created to assist teachers to envisage and begin to operationalise a new approach to online teaching. By positioning teachers as learners and letting them experience the revised online learning design through a student lens, we aimed to influence a change in teaching practice. To further demonstrate the learning design principles, a pedagogical agent, the Cloud Coach was used to explicitly highlight how the learning design was being applied, and learning tasks were designed to prompt staff to apply these principles to their own teaching.

A formal evaluation of the resource has yet to occur, but preliminary anecdotal feedback suggests that staff have found it a useful introduction to the learning design approach and the principles. A second resource that explores aspects of online learning *delivery* is currently underway, with input from students to further model a student-centred approach to teaching. It is hoped that these resources support staff to develop the knowledge and skills required to teach in the contemporary higher education environment.

NB. *'we' refers to the project team. The authors would like to acknowledge the work of the project team and our colleagues from across the university in the creation of the resource.

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Please cite as: Elliott, J. & Taylor, D. (2019). "Okay, but what does it look like?" Building staff capacity in online learning design through role modelling. In Y. W. Chew, K. M. Chan, and A. Alphonso (Eds.), *Personalised Learning. Diverse Goals. One Heart. ASCILITE 2019 Singapore* (pp. 413-417).