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Empowering Learning Designers through Design Thinking

Kashmira DAVE* & Jon MASON
Charles Darwin University, Australia
kashmira.dave@cdu.edu.au
jon.mason@cdu.edu.au

Abstract: The COVID-19 crisis has compelled universities world-wide to make urgent and unexpected changes in the delivery of education. Transitioning from face-to-face to online teaching has presented a major challenge for some. Given the content is provided by the content experts (university teachers), a question arises whether the learning designers are ready for this challenge and can align their expertise to the requirements triggered by the pandemic. Learning designers need to have skills that can connect learning objectives and activities to changing contexts and changing stakeholder needs. Design thinking is proposed as a useful strategy which learning designers can use to address these challenges. This session will use action research and involve attendees in questioning how design thinking may support academics and learning designers in providing better experiences for learners.

Keywords: Learning design, Learning designers, Instructional design, Design thinking, support and strategies

1. Introduction

During 2020, COVID-19 emerged as a major social and economic challenge. In the education sector, it caused universities to face the challenge of swiftly moving from face-to-face teaching to online – and for many institutions this has been a new experience. Transitioning from face-to-face to online teaching presents a major challenge for Learning Designers (LDs) perhaps because they are "the sherpas of online learning teams" doing the "heavy lifting" for university teachers preparing to teach in unfamiliar remote and online contexts: "the successful transfer of knowledge, the stimulation of creative thinking and the development of critical insights all rest on the preparation, organization and stability that this small army of specialists (LDs in our context) provide" (Levander & Decherney, 2020). Apart from this unprecedented situation, historically LDs have also had to keep up with relentless and sometimes disruptive technological change and teaching models. This paper argues, however, that LDs may not have relevant qualifications or experience to support this wide range of tasks that they are expected to carry out. While they provide support to content experts, they also need support.

The first author of this paper is a learning designer and has faced the uncertainty in expectations. She has struggled to keep up with demands and tried to learn new skills that could assist in gaining clarity and expertise in learning design. Design thinking, as a broader field, has proved to be a useful strategy facilitating stakeholder engagement with the creative process. It is proposed here as a useful strategy in designing for learning. Hence, design thinking is presented as one of the strategies that LDs could use to enhance their understanding of the process of learning design.

2. Learning Design (LD) – Historical perspective

The historical origins of the field of Instructional Design (ID) lie in World War II wherein American Army Air Corps was deemed to be very high, experts in education and psychology were engaged to develop training materials based on instructional principles. The instructions can influence the environment (Clark,

2004). Skinner (1963) proposed that the learning environment could be manipulated by putting the right learning process in place, a process he named programmed instruction. Skinner's "teaching machine" was one noteworthy technological embodiment of his ideas and research, a machine that arguably is now reappearing in classrooms in the form of tablets and devices that lead students through adaptive learning exercises (Skinner, 1958). In the decades since WWII, the field of ID has been thoroughly researched and has opened new frontiers. The generic term ID was used for all attempts to design a task that has gone through various changes and challenges. After this profound foundation, ID developed in a more structured manner, and many research-based models have flourished to support the field, including: ADDIE (Clark, 2004), backward design (Wiggins & McTighe, 2005), the Four Component ID Model (4C/ID) (Merriënboer et al., 2002), Dick and Carey Model (Dick, 1996; Dick & Carey, 1978) and so on. With development in Information and Communication Technologies (ICT), ID has shifted from a focus on the organisation and sequencing of learning resources and material to a more holistic approach and acknowledgement of the learning environment and shifting emphasis to the learner. In other words, the scope of learning design has widened from a focus on the learning artifacts to the influence and potential of the learning context.

Learning design is a much newer field of design and practice emerging early in the twenty first century (Dalziel, 2016) and promoted by the IMS Global Learning Consortium around 2002. The main difference between learning design and ID is that learning design incorporates affective engagement of learner and developed at a time in Web development where the 'end user' increasingly became recognised as the most important stakeholder. This allows subjective perception along with understanding of collective co-creation of meaning (Parchoma et al., 2019). The shift in terminology was also in sync with the trend toward the learner or the "user" becoming the most important stakeholder in the web. The web itself has been a great catalyst for self-directed learning.

3. Background and challenges

With the change in focus for learning design work, there have emerged many challenges. The first and foremost challenge is that university teachers are not typically trained as learning designers and people who are learning designers do not necessarily have the range of skills required for the the changing digital environment. Wasson and Kirschner (2020) explained this with a metaphor of a chef. As the chef would have the ability to make use of tools and techniques of cooking along with knowledge of ingredients. Most importantly the chef would have "the requisite deep knowledge, skills, attitude, and experience to know what to use with what as well as how and when to use them to create delicious, nutritious, and beautiful meals". Similarly, in a study situation/learning environment, learning design involves use of tools (technology), techniques (pedagogy) and ingredients (content knowledge) to create a meaningful learning experience for the students. These challenges lead to many questions that may be out of scope of this paper. However, one of the things worth investigating is what the learning designers do. If we review the job market in the last decade or so, there are positions for learning designers created across almost all industry sectors. In personal conversations with many employers about the role of the position has indicated there is no coherent or shared understanding of what a learning designer is and what the knowledge base is required to become a successful learning designer.

Another challenge comes from the background of the people involved in learning design. Because most of the tasks are designed by academics in higher education and they are not trained designers, empowering them to design better tasks is a challenge. Wasson and Kirschner (2020) say "*he [learning designer] also has the requisite deep content, pedagogical content, technological pedagogical content knowledge and skills, attitude, and experience to know what to use with what, as well as how and when to use them to create effective, efficient, and enjoyable learning experiences*". This would mean being a learning designer is a challenge because it requires them to possess a wide variety of skills. Hence supporting them is a challenge for the institution. Wasson et al further analyse this challenge and note that there is a growing body of what works and why (evidence base) in the learning situation but at the same time there is a huge amount of misinformation which they call pollution in the learning design ecosystem.

For learning designers to use the research evidence and base their practice on best practice, they need to have access to authentic scientific literature which is often behind the paywall. There are other peripheral issues around correct use of data available and learning designers' ability to understand statistical and methodological knowledge.

The above challenges indicate why learning design is a field that requires attention. Kickbusch et al, (2020) after a comprehensive literature review, suggest that "learning design remains misunderstood, misaligned with the practices of instructional design, and confused by the exponential growth of educational technologies". Most higher education institutions have created position of learning designers indicates that there is a substantial unmet demand of usable form of guidance. The demand from academic staff, being time-poor, to help with "for customisable, re-usable ideas, not fixed, pre-packaged solutions" (Goodyear, 2005). Universities and institutions have employed large number of professionals with varying job titles basically trying to meet this demand. The following sections presents some empirical evidence demography of learning designers and their roles.

4. Who are learning designers?

A study conducted in 2016-2018 by Slade et al. (2019) was focused on Learning designers' roles in Australian universities. It reveals a lot about the field. The study collected responses from 103 learning designers and 16 learning and teaching leaders about their roles. The study revealed that the learning designers conduct various tasks as a part of their work as indicated in Figure 1. LDs are involved in various tasks under the broader umbrella of learning, creativity, technology and business. The survey also revealed that 98% of designers manage Learning Management Systems (LMS) and only 13% are involved in research and have publications.

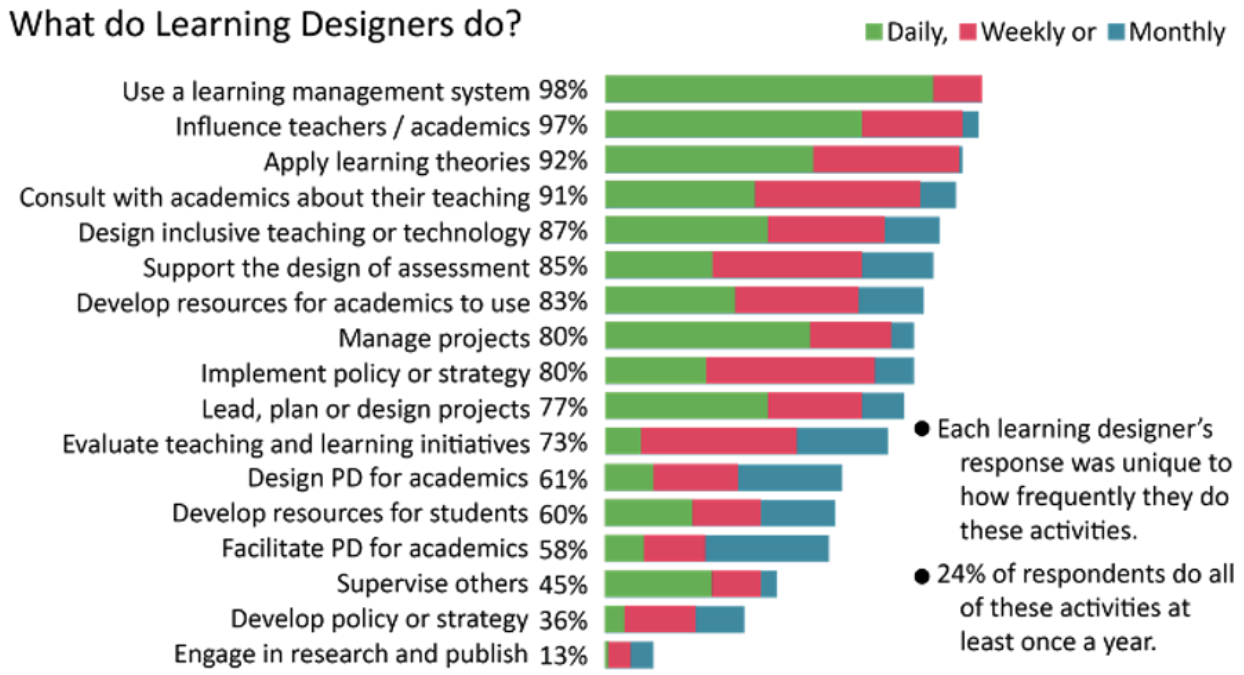

Figure 1. Roles and frequencies of activities of learning designers

This the study also revealed that about 71% of the LDs have postgraduate qualifications. Because the LDs are a core part of creating technical and pedagogical priorities for the learning environment and the variety of tasks that they do, they overlap the boundary between academic and professional roles. This blurring of

roles creates 'third space professionals' wherein the LDs create a highly collaborative environment for themselves and others in the team. The concept of the 'third space professionals' articulates the opportunity to consider new identities as staff, such as learning designers, step into the professional space of other staff, such as academics or other professional staff who support teaching (Slade et al., 2019; Whitchurch & Gordon, 2010).

This research further investigated the reasons for LDs to work in this area. They all ended up in this field because of their interest in education and writing, a curiosity to understand things more deeply, and a desire to help people. Because that the learning design professionals may have different qualifications, interests and have wide variety of skills, and that they do not necessarily have the background that they need, creating a supportive environment could be challenging.

5. Supporting learning designers

As mentioned above, to be a good learning designer, one needs to have wide variety of skills and knowledge in various areas such as teaching and learning, technology, teaching philosophies and deep understanding of how people learn. Besides, the learning designers also need soft skills such as collaboration, teamwork, some research skills and intuitive judgement (Jen, 2018). Given the challenges mentioned in above section, the learning designers seem to have a critical role to play in laying out the engaging teaching and learning plan.

The question now arise is how best learning designers could be supported to carry out these tasks. The definition indicating the characteristics of learning designers (she called it eLearning Champions then) by Beath (1991) is useful here. "Individuals who emerge to take creative ideas (which they may or may not have generated) and bring them to life. They make decisive contributions to the innovation process by actively and enthusiastically promoting the innovation, building support, overcoming resistance, and ensuring that the innovation is implemented*"*

The characteristics of learning designers mentioned above resonates with design thinkers' mindset which is being comfortable with open-ended situations without predetermined outcomes; being empathetic to the needs of the user and engaging in exploration and managing uncertainty, taking calculated risks, learning from failures and relying on personal judgment rather than accepting existing solutions (Gachago et al., 2017).

6. Design thinking as strategy to support learning designers

It is proposed that design thinking methodology (Norman, 1998) could be one of the strategies to equip learning to face the challenges described earlier. The rationale for using design thinking as a support mechanism include:

- Design thinking can lead to solutions that are not apparent with our initial level of understanding
- Design thinking does not assume the person using design thinking to be master designer.
- Design thinking is creative process and better solutions can be reached by the iterative process.
- Design thinking is user centric and hence can be useful in creating engaging student-centred educational setting.
- Different variations in design thinking process can be used for different learner needs.
- It is agile and can absorb any changes

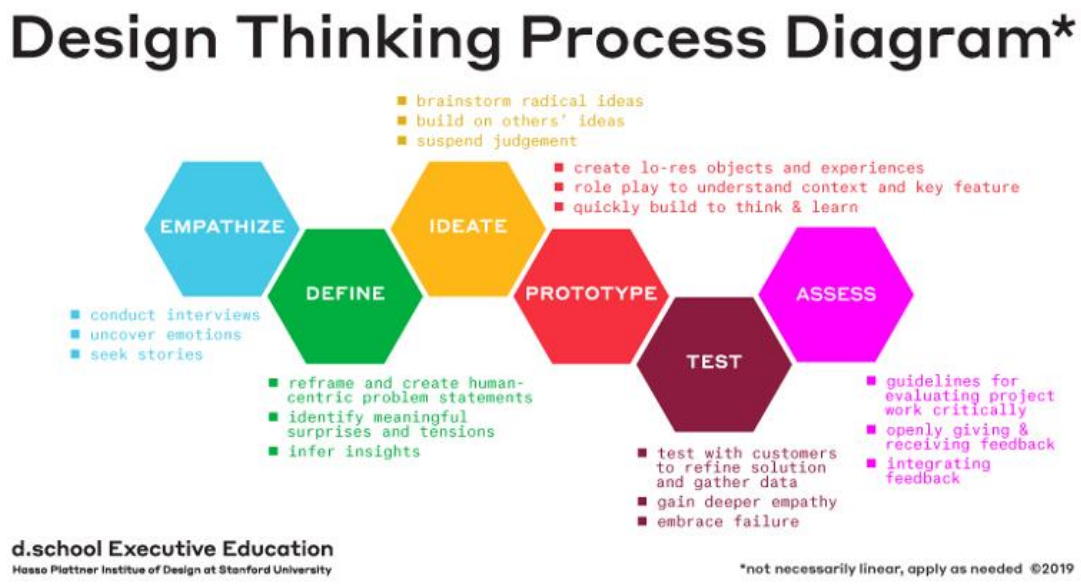

Figure 2. Design thinking process diagram (d. school, 2011)

The various stages depicted in Figure 2 will be elaborated on to attendees of the workshop with a view to stimulate discussion around if and why design thinking can be used by learning designers so they can be better supported and trained to face the challenges of this field.

7. Proposed activity

Depending on time available at the workshop a short action research survey will be introduced to solicit views of the participants on using design thinking in learning design. The responses then will be used for the further research in the area.

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