Learning Design in the Time of COVID-19: The Digital Learning Design Unit Story

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ABSTRACT

Learning designers became the "first responders" during the great onlining due to the Covid-19 pandemic. In this innovative practice article, we share the experiences of a team of digital learning designers created to support the university community's pivot online. This project adopts a case study methodology. The case study of the Digital Learning Design Unit (DLDU) described in this article offers an examplar of learning design and the work of learning designers during the time of Covid-19. Findings from this case study indicate that a demand led professional learning approach can be very effective at encouraging staff engagement with learning design; a rapid learning design intervention can provide just in time support for colleagues during a time of crisis; time and digital competencies are essential to build staff competence and confidence with online pedagogy and learning design approaches. In this case study, the pandemic prompted a strategic approach to learning design for online, blended and hybrid education. This strategic approach began as a temporary proactive measure to keep teaching and learning going but has now been cemented into a permanent strategy for online blended and hybrid education at our institution which will continue in the post pandemic environment.

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INTRODUCTION

This case study describes the story of the Digital Learning Design Unit (DLDU) based in Dublin City University (DCU) and their learning design support of staff, modules and programmes during the Covid-19 pandemic to help address the challenge of pivoting online.

During the Covid-19 pandemic, the majority of education shifted online and adopted some form of emergency remote online delivery; online education moved from a niche to a mainstream activity (Bozkurt et al., 2020; Farrell et al., 2021). Educators who were involved in online education prior to the pandemic, emphasised the differences between the emergency online approaches necessitated by the pandemic and the careful systematic design approach for an online course pre-pandemic. One of the earliest articles on this topic "*The Difference Between Emergency Remote Teaching and Online Learning*" coined the now ubiquitous phrase "emergency remote teaching":

> "Well-planned online learning experiences are meaningfully different from courses offered online in response to a crisis or disaster. Colleges and universities working to maintain instruction during the COVID-19 pandemic should understand those differences when evaluating this emergency remote teaching" (Hodges et al., 2020).

Within this context, we examine the role of learning design and learning designers who became the emergency "first responders" of the great pivot online during the pandemic (Abramenka-Lachheb et al., 2021). In response to emergency remote teaching, emergency remote learning design developed. The case study of the Digital Learning Design Unit (DLDU) described in this article offers one example of learning design during the time of Covid-19.

WHAT DOES THE LITERATURE SAY?

This section presents contexts from the literature on learning design for online and blended learning before and during the Covid-19 pandemic.

LEARNING DESIGN

Learning design is defined as

> "a representation of what happens in a teaching and learning session to help learners achieve specified learning outcomes. It is often structured as a sequence of learning activities that can be shared with others. For online and blended learning, this approach is able to show, not only what is happening when the teacher is with the learners, but also what learners should be doing when the teacher is absent and they are being supported by technology" (Laurillard et al., 2018, p. 1048).

Learning design is closely related to instructional design which dates back to the second world war and the development of the analyse, design, develop, implement, evaluate (ADDIE) model (Adnan & Ritzhaupt, 2018). In Europe, the research and practice of learning design in online and blended environments has been growing over the past twenty years and focuses on creating positive learning experiences rather than the act of instruction (Wasson & Kirschner, 2020).

As learning design has evolved, "there has been a move from a focus on content and the way to present it, to a focus on complex learning" (Wasson & Kirschner, 2020, p. 824). To support this shift in emphasis, newer agile learning design approaches have been developed such as ABC learning design, rapid prototyping, user experience design, and design thinking (Adnan & Ritzhaupt, 2018; Ni She et al., 2021; Young & Perovic, 2016). A further trend of note is the increasing importance of designing and developing online and blended courses which are accessible to all students, following a universal design for learning approach (Dell et al., 2015). These learning design approaches share a number of common features:

- A focus on the student or user
- Persona development
- Storyboarding

- Piloting and prototyping
- Iterative development which incorporates student/user feedback
- Alignment to learning outcomes and assessment (Adnan & Ritzhaupt, 2018; Ni She et al., 2021; Wasson & Kirschner, 2020).

Before the Covid-19 Pandemic, designing and developing online and blended courses took time, from six to nine months and often was a collaborative process involving academics and learning designers working together (Freeman, 2015; Hodges et al., 2020; Martin et al., 2019).

LEARNING DESIGNERS

The term learning designer is not well defined in the literature, other terms are prevalent such as instructional designer, learning technologist or elearning developer (Concannon et. Al., 2021). In this article, we use the term learning designer to describe a third space professional who supports staff to design and develop online, blended and digital experiences to support student learning (Whitchurch, 2008; Slade et al., 2019).

Learning designers played an important role in keeping education going during the Covid-19 pandemic, they "have become the sherpas of online learning teams, experts in how to teach and design a course" (Decherney & Levander, 2020). According to North et al. (2021, p. 713), "in 2020, as COVID-19 impacted the world, instructional designers quickly came to the forefront of higher education, consulting, and corporate settings". Learning designers became the "first responders" during the pivot online, supporting faculty to rapidly adapt to teaching online (Abramenka-Lachheb et al., 2021).

Although learning designers have become increasingly important in the context of institutional teaching and learning, innovation and scaling up of online and blended forms of education, they are often in precarious positions, with no clear career progression (Concannon et al., 2021). Furthermore, learning designers as the "first responders" during the pandemic, has resulted in many learning designers experiencing burn out and overwork (Prusko & Kilgore, 2020).

EMERGENCY REMOTE LEARNING DESIGN

Before the Covid-19 pandemic, online and blended learning design was quite a slow, tailored and quality orientated process. The large-scale pivot online due to the pandemic necessitated a different approach to learning design, speed, pragmatism and just in time support became key ingredients of emergency remote learning design. This new focus on speed may have an impact on the quality of the online course developed during the pandemic, as Hodges et al. (2020) observe "The rapid approach necessary for ERT may diminish the quality of the courses delivered. A full-course development project can take months when done properly. The need to "just get it online" is in direct contradiction to the time and effort normally dedicated to developing a quality course".

Initially, many educators took an "old wine in new bottles" approach to the pivot online, substituting lectures with synchronous online lectures using videoconferencing tools such as Zoom and Microsoft Teams (Bates, 2019; Bozkurt et al., 2020). As the pandemic progressed the massification of online teaching and learning highlighted challenges such as zoom fatigue, equity issues around camera usage, and access issues related to broadband and devices, and has shone a light on the importance of digital competencies for both educators and students to engage effectively in online education (Bozkurt et al., 2020; Bali, 2020).

The pandemic highlighted that "teaching online is different", online pedagogy and online learning design require different approaches and digital competencies (Ni She et al., 2019). It was within this context that the Digital Learning Design Unit, the subject of this article, was formed and sought to support DCU colleagues to transform their face to face programmes to be engaging, well designed and worthwhile learning experiences for students.

METHODOLOGY

This study adopted a single intrinsic case study approach, as the experience of the Digital Learning Design Unit supporting the DCU community during the Covid-19 constitutes a single case, with intrinsic value, that requires a documented description (Stake, 1995). The case study methodology

was selected as this approach builds knowledge and insight in order to inform professional practice (Stake, 1995; Yin, 2003). Using multiple sources of data, this approach facilitates a rich narrative of learning design during the pandemic. Data was gathered from multiple sources throughout the project; observations, meeting notes, feedback from service users, and project management data.

THE CASE STUDY

Dublin City University (DCU) is a dual-mode institution with the majority of its 17,500 students studying on one of three physical campuses and a small proportion of 1200 students studying online through DCU Connected. Following the initial pivot to emergency remote teaching during the second semester of 2020, DCU moved from an emergency response to the Covid-19 pandemic crisis to a strategic one. This strategy comprised of three elements:

1. A large scale study of student and staff experiences of remote teaching and learning during the first phase of the pandemic.

2. The articulation of principles for hybrid learning in DCU to guide the next academic year 20–21 teaching and learning approaches.

3. The creation of the Digital Learning Design Unit (DLDU) to support academic staff, modules and programmes to design their courses for hybrid delivery.

In July 2020, DCU carried out a large-scale study of student and staff experiences of emergency remote learning during the initial stages of the pandemic. Students identified a number of challenges in their experiences of remote learning from March to June 2020, such as difficulties accessing quiet study space, internet connectivity, lack of motivation to study and competing demands on their time. Students suggested a number of potential improvements to their learning experience which could be enacted in the next academic year. They suggested clearer information, more interaction between students and staff, better access to library and learning resources. Simultaneously, academic staff were also asked about their experiences of emergency remote learning, staff indicated that additional support for teaching online and clear guidelines for teaching online would be beneficial.

In response to the staff and student feedback, DCU undertook to develop guidelines for hybrid learning in DCU which were then enacted for the academic year 2020–21, see Figure 1.
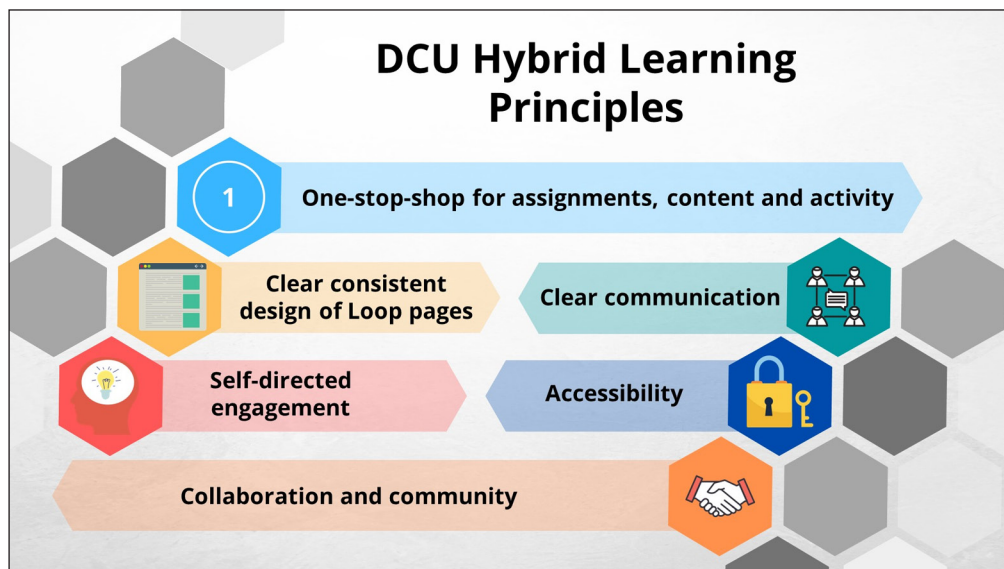

Figure 1 DCU Hybrid Learning Principles (Source: Author own work).

Also in response to the staff and student feedback, the university formed the Digital Learning Design Unit (DLDU). Ten learning designers were hired and Dr Orna Farrell was seconded from the DCU Connected online to lead the new unit. The new team consisted of ten experienced digital learning designers who had both the technical skills and learning design knowledge but the majority of had no experience of DCU and were working remotely. The new team had to quickly familiarise themselves with DCU systems, the DCU virtual learning environment called Loop and learning design approaches.

PHASE 1: START UP

The DLDU was tasked with helping as many staff, modules and programmes to prepare for online delivery as possible in advance of the start of the academic year at the end of September 2020. With approximately five weeks to achieve this goal, the team developed a scrum approach to learning design combined with the ABC learning design model, which we called our rapid design approach. The DLDU services were demand-led, each faculty decided which programmes and modules self selected to access our support (McDonald & Gallagher, 2020). The DLDU was a fully remote team, working together using Google workspace and Zoom. In the words of two of the DLDU team James McDonald and Edel Gallagher in their blog post for ALT:

> "While as a team, we communicate through a screen, the team has a shared purpose, to support lecturers, and ultimately students. Although we haven't met, we are driven to support each other to deliver on that purpose" (McDonald & Gallagher, 2020).

The DLDU rapid design approach was a collaborative process which entailed four, two hour sessions over a two-day sprint which dedicated time for academic staff to explore and learn the pedagogical and technological approaches to effectively engage with hybrid learning. The sprints focused on hands-on tailored professional learning in a small group environment, see Figure 2.
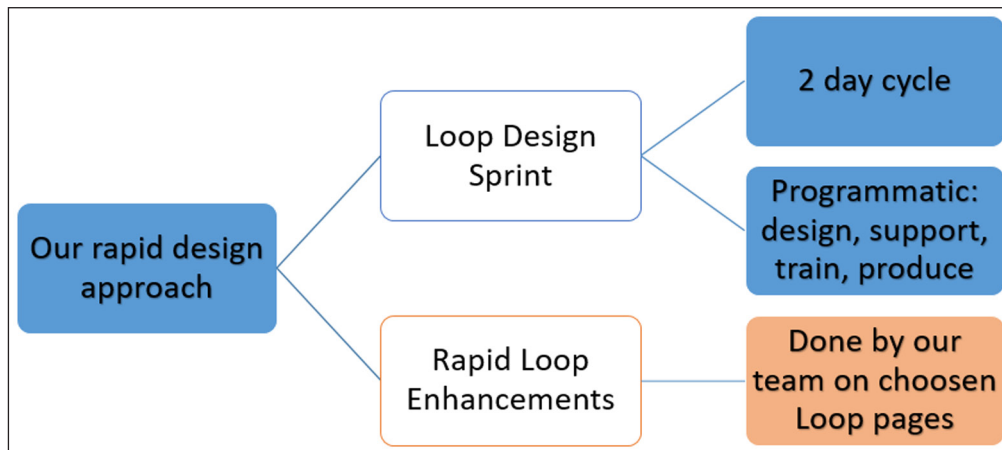

Figure 2 DLDU Rapid Design Approach (Source: Author own work).

The DLDU's agile design methodology focused on enhancing the student learning experience and was anchored around three core pillars:

- DCU's Hybrid Learning Policy
- ABC Learning Design Framework (Young & Perovic, 2016)
- Universal Design for Learning (Dell et al., 2015)

Our support approach combined online pedagogy, learning design approaches and practical hands-on design and development. We embedded many practical examples in our sessions, using our model Loop page and creating asynchronous support materials for academics on Youtube and in Loop. Our design sessions featured persona development, storyboarding using an online version of the ABC learning design cards and learning types and approaches to development of learning resources.

Simultaneously, a separate team would rapidly enhance the academic's Loop page in order to bring it to life. We created 20 rapid enhancements which focus on user experience, clear communication, and clean design.

By November 2020, the Digital Learning Design Unit had supported 176 staff, 164 modules in all five faculties in DCU, see Figure 3.
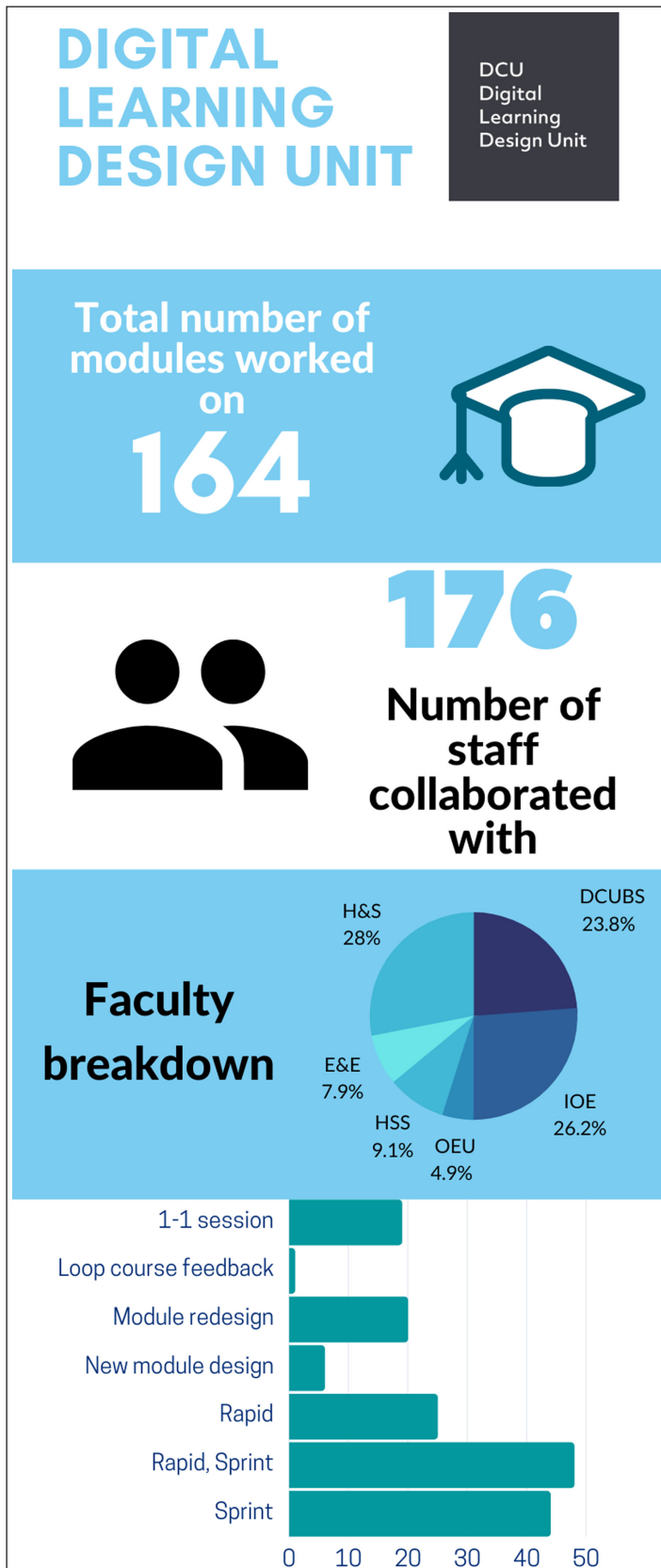
DIGITAL LEARNING DESIGN UNIT

DCU
Digital
Learning
Design Unit

Total number of modules worked on
164

176
Number of staff collaborated with

Faculty breakdown

H&S 28%
DCUBS 23.8%
IOE 26.2%
E&E 7.9%
HSS 9.1%
OEU 4.9%

- 1-1 session
- Loop course feedback
- Module redesign
- New module design
- Rapid
- Rapid, Sprint
- Sprint

0 10 20 30 40 50

Feedback from academic staff about the DLDU support was very positive, as indicated in the quotes below:

"Kind and patient support, ultimately assisting me in being somewhat self-sufficient in the future"

"World-class design team; totally responsive and supportive; creative suggestions that were expertly implemented in real-time"

"Very clear structure to the activities. Instructions and visual examples were easy to follow. It was great to see really good teamwork in action"

PHASE 2: A MORE MATURE APPROACH

After the initial start up period from July to November 2020, the DLDU began to refine our support offerings and began to offer more traditional learning design support. We expanded our service offerings based on feedback from academics and an organic evolution of our support requests, see Figure 4.
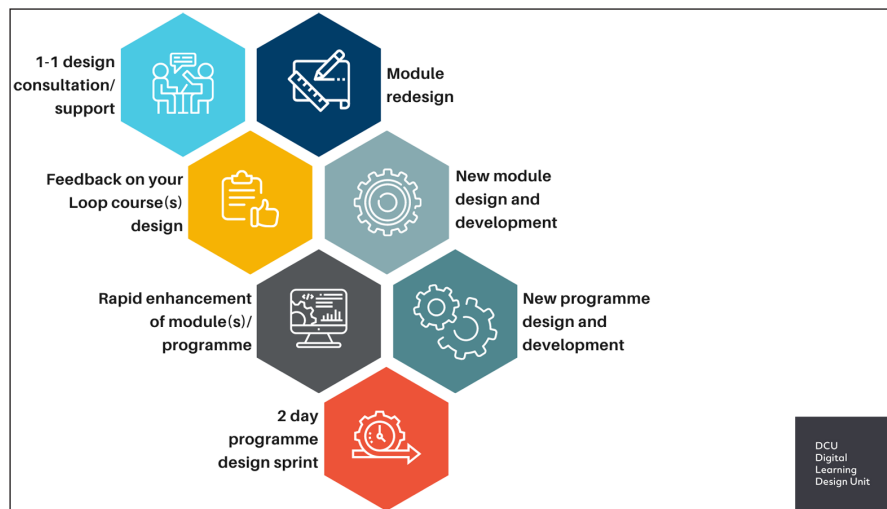

Figure 4 DLDU expanded support offerings from November 2020 (Source: Author own work).

The new support offerings included new module and new programme design and development support, these design services are detailed in Figure 5.

Design service	Description
2 day programme design sprint	• 8 hours tailored professional development for programme/module team • Programme learning design plan • Rapid enhancement of nominated modules by the DLDU team • Up to 6 hours of additional support after sprint
Rapid enhancement of module(s)/programme	• Rapid enhancement of your nominated modules by the DLDU team • Our team will implement 20 quick enhancements in line with the DCU hybrid learning policy.
1-1 design consultation/support	• Personal consultation with a member of the DLDU team to discuss your Loop course design. • Tailored professional development as requested.
Feedback on your Loop course(s) design	• On request we will give you feedback on your Loop course(s) using our checklist based on the DCU hybrid learning principles.
Module redesign	• We will support you to redesign your module for hybrid delivery • Up to 40 hours of learning design support for design, development of your module. • Our team will co-create content and activities with you. • Our team will provide tailored professional development to enable you to design and develop content and activities in Loop.
New module design and development	• We will support you to design your module for hybrid delivery • Up to 60 hours of learning design support for design, development of your module. • Our team will co-create content and activities with you. • Our team will provide tailored professional development to enable you to design and develop content and activities in Loop.
New programme design and development	• We will support you to design your programme for hybrid delivery • Up to 100 hours of learning design support for design, development of your programme. • Our team will co-create content and activities with you. • Our team will provide tailored professional development to enable you to design and develop content.

Figure 5 DLDU expanded support offerings from November 2020 (Source: Author own work).

From November 2020 to May 2021, an increasing number of academic staff and programme teams availed of these new offerings, as indicated in Figure 6.
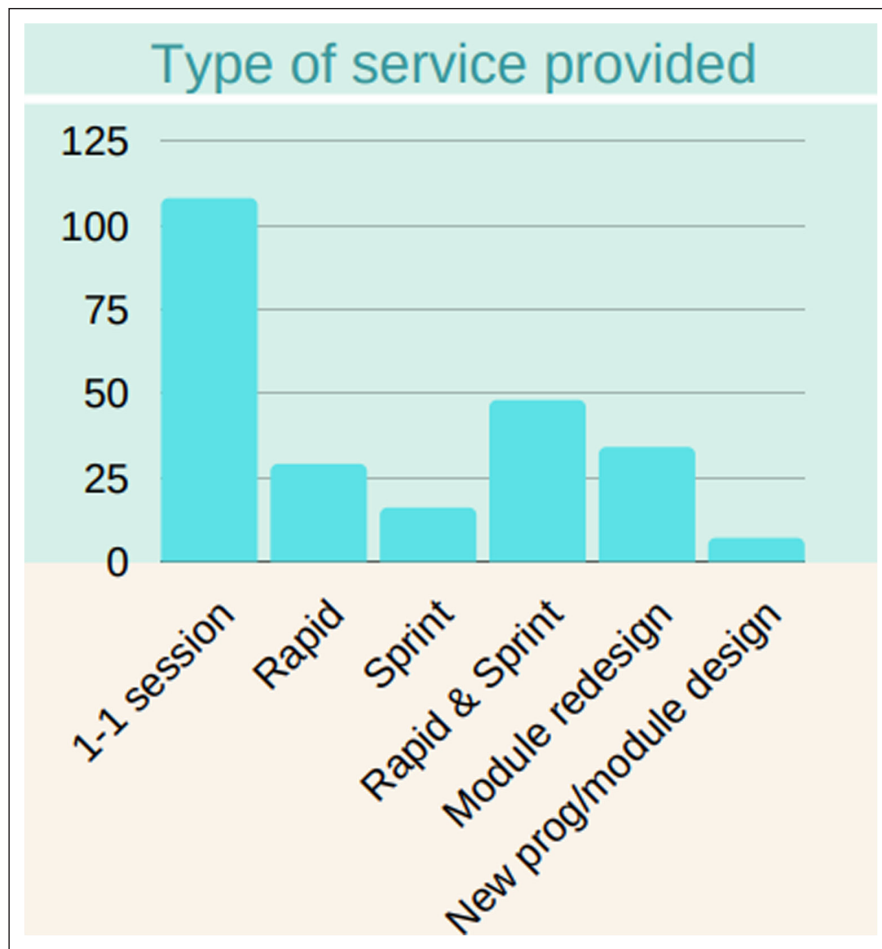

Figure 6 Engagement with DLDU offerings upto April 2021 (Source: Author own work).

By the end of April 2021, the DLDU had worked with 442 DCU academic colleagues. In acknowledgement of the positive feedback and impact of the unit, a permanent learning design service has been created in DCU, incorporating the ethos, approach and people from the Digital Learning Design Unit. The Digital Learning Design Unit were highly commended at the DCU President's staff recognition awards in December 2021 for their contribution supporting the university community during the pandemic.

LESSONS LEARNED

Writing this article at the end of 2022, it feels like the pandemic is drawing to a close. Reflecting on the work of the Digital Learning Design Unit over the past few years, we now share a number of lessons learned from our experiences supporting the DCU Community:

1. A demand led professional learning approach can be very effective at encouraging staff engagement with learning design.

2. A rapid learning design intervention can provide just in time support for colleagues during a time of crisis.

3. A flexible and tailored approach to professional learning is more effective.

4. Building staff confidence and competence with digital and online approaches is incremental.

5. Give staff time to experiment with new tools and approaches in a supported environment.

6. Educators' pedagogical beliefs impact on their engagement with online and blended learning design.

7. Digital competencies are essential for all educators.

FINAL THOUGHTS

In some respects, the pandemic was an enabler for higher education transformation. The pivot online, forced many educators to engage with online pedagogy, learning design and teaching, learning and assessment supported by digital tools. In the short term this could be viewed as a positive impact of the pivot online, in the long term how many educators will continue to practice their new approaches now that physical campuses are open?

In this case study, the pandemic prompted a strategic approach to learning design for online blended and hybrid education. This strategic approach began as a temporary proactive measure to keep teaching and learning going but has now been cemented into a permanent strategy for online blended and hybrid education at our institution which will continue in the post pandemic environment.

While this study provides useful insights into one learning design team's experience supporting a university community during the Covid-19 pandemic, the author acknowledges the limitations of a single case study approach. Future research will explore broader patterns of learning design during and after the Covid-19 pandemic.

If higher education institutions wish to take a strategic approach to online and blended education and seek to grow online and blended offerings in the post pandemic era. It is clear that learning designers as the "sherpas" of online course development will play a key role in this process. Therefore, there is a need to further define, regularise and support the roles, rights and career paths of learning designers in the higher education system.

To conclude, in the words of two of the DLDU learning designers: James McDonald and Edel Gallagher in their blog post for ALT:

> "While as a team, we communicate through a screen, the team has a shared purpose, to support lecturers, and ultimately students. Although we haven't met, we are driven to support each other to deliver on that purpose" (McDonald & Gallagher, 2020).

COMPETING INTERESTS

The author has no competing interests to declare.

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