
10 YEARS OF LEARNING DESIGN AT THE OPEN UNIVERSITY: EVOLUTION, FINDINGS AND FUTURE DIRECTION

Gerald Evans, The Open University, United Kingdom

Overview

Over the past 10 years The Open University has embedded an institutional approach to Learning Design, with use of the approach mandated as part of the curriculum design process.

This paper will explore how that approach has developed over time, as practitioners have learnt from and developed the offering, and as requirements on the institution and on curriculum production have changed. This evolution has seen the approach develop into an end-to-end process of design and evaluation and brought to bear the power of learning analytics into curriculum design.

The paper will also explore the various internal and external research outputs, synthesising these into some key lessons that have been learnt over the past ten years.

Finally, the paper will look ahead, to see how the next ten years might look and how the role of Learning Design may adapt over this time.

Evolution of process

There are a number of reasons for The Open University, and distance learning providers more generally, to take an institutional level approach to Learning Design, but two stand out:

- Our students learn at a distance, so it is important that a broad picture of the structure and pedagogy of a piece of curriculum can quickly and effectively be communicated to tutors and students.
- It is much more difficult for us to identify and fix problems when a module is in presentation than in a conventional university, and problems are often easier to spot when information is presented in a visualised form rather than a descriptive narrative.

Back in 2009, when starting out on the implementation of Learning Design at The Open University, the approach was based around three key principles (Galley, 2015):

- mechanisms to encourage design conversations across disciplines and expert roles;
- the use of tools and instruments as a means of describing and sharing designs;
- the use of information and data to inform the conceptual tools and frameworks that guide the decision making process.

These manifested themselves through the core suite of tools that the Learning Design approach embedded as part of business as usual for The Open University, and included the following set of resources.

Learning Design workshops

These were established as key interventions bringing together the module team and holding a facilitated conversation with the team to help them to articulate and capture the learning journey for the module. The Learning Designer facilitates the workshop and the module team bring their subject expertise to the table to work with the designer to flesh out the plans for the module.

Learning Design views

A number of core Learning Design views were established early on which acted as core mechanisms for developing shared understanding of Learning Designs. This included common templates to be used to capture the designs and common terminology enabling the University to establish a shared language for describing completed learning designs.

Online tools and learning analytics

As the views and approach to workshops developed, online versions of the views were created enabling the University to start to develop learning analytics from completed learning designs. This included a tool for logging the student workload down to activity level.

Other initiatives

Alongside the development of Learning Design, there have been two new initiatives developed internally that have now been integrated into the full end-to-end Learning Design and evaluation model:

- Firstly, development of approaches within the University's production teams to support teams with detailed-level technology support and design. This was initially called TEL design and sought to bridge the gap between creation and implementation of a given learning design.
- Secondly, the development of learning analytics views, culminating in a programme of work around this area from 2013 which sought to create a step change in the University's adoption of learning analytics. A key part of this initiative was the idea of using learning analytics to inform evidence-based change in presentation. This approach was labelled Analytics4Action.

Over the past three years the Learning Design team at The Open University have carefully integrated both of these initiatives together with the original Learning Design tools to create the end-to-end support for Learning Design and evaluation at the OU. This revised process, as outlined in Figure 1, is bringing to bear the full benefits of learning analytics as a tool to support evaluation of learning design work.

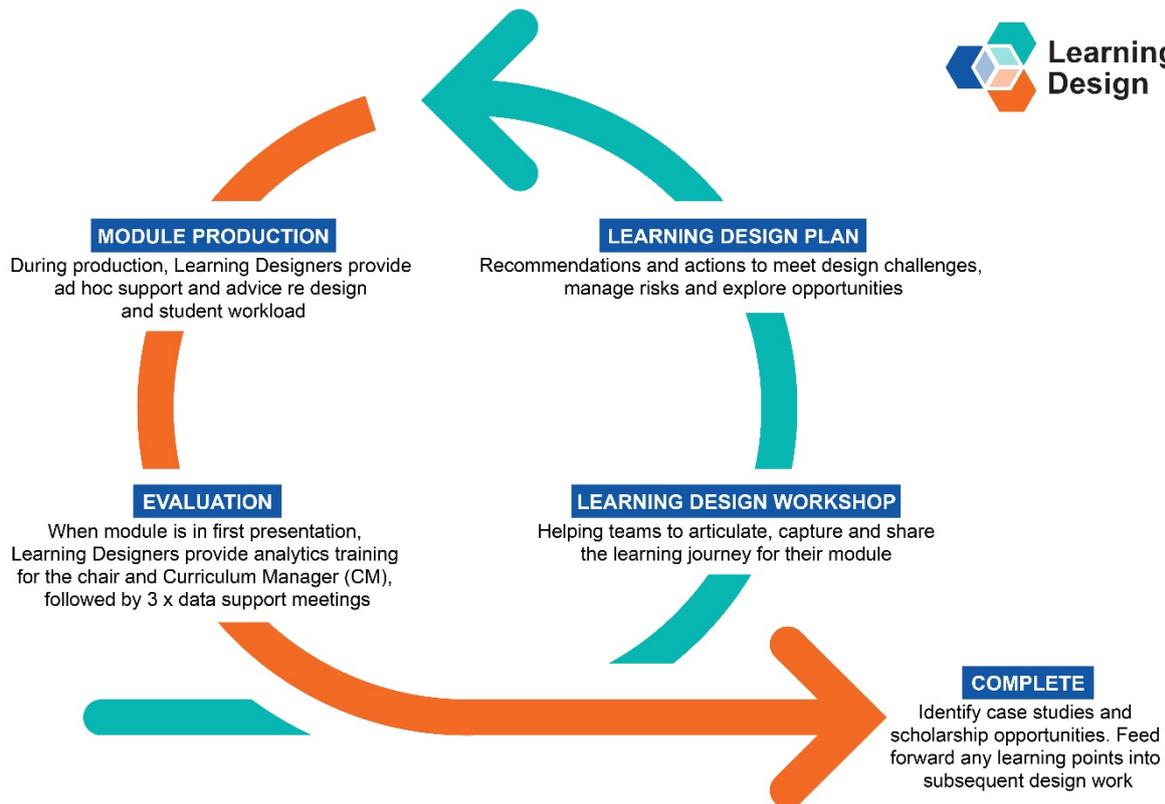


Figure 1. The Open University Learning Design process

Key to the success of the approach is the people-based nature from start to finish. The workshop, Learning Design Plan and analytics training all aim to handhold and bring people along with the Learning Designer in a collaborative manner. In particular, the approach to training and supporting teams with Evaluation has led to very positive feedback from participants and has encouraged even analytics sceptics to work with us and engage with the learning analytics.

Research outputs and findings

Over the past ten years, a large volume of research has been undertaken by staff at The Open University looking at the outputs and findings from our Learning Design approach. This has also helpfully been collated into a paper reviewing the alignment of learning design with learning analytics which summarises eight empirical studies linking learning analytics with Learning Design (Rienties et al., 2017).

These studies have found a number of key conclusions, including:

- That educators working with Learning Design views have adjusted their designs toward more student-active activities such as communication and finding and handling information (Toetanel & Rienties, 2016).
- That communication activities are a key predictor of academic retention in learning designs (Rienties & Toetanel, 2016).
- That learner satisfaction is strongly influenced by learning design (Rienties & Toetanel, 2016).

- That learning designs vary considerably across disciplines (Nguyen et al., 2017).
- The OU Learning Design taxonomy needed to be adjusted for the languages context (Rienties et al., 2018).

Further studies have led to the creation of a series of principles for design for retention (van Ameijde et al., 2018). These are based around seven principles, and more commonly known as the ICEBERG model as an acronym of the combined principles (Integrated, Collaborative, Engaging, Balanced, Economical, Reflective and Gradual). These principles have been integrated into the approach taken to Learning Design and new resources have been created to support teams in implementing the principles.

Additionally, the Learning Design team have generated improved institutional understanding into the challenges of collaborative learning activities and provided tips on designing these (Evans & Chang, 2017), and prototyped a number of innovative design approach, such as adaptive learning (Evans & Gallen, 2017). Designing these and delivering them at scale is a significant challenge and an area where Learning Design can help educators to both design effective solutions and avoid potential pitfalls.

Future direction and conclusion

So the first ten years of embedding Learning Design at The Open University has led to a substantial amount of change in terms of completeness of the process and with that a far more nuanced understanding of what works for our students. This has been a process of evolution and looking for opportunities to link up the existing process with new initiatives aimed at improving student retention and with a strong link to Learning Design.

The coming years are likely to see similar adaptations as improved understanding of the approaches used enables us to further develop the model.

In the short-term, developments in the learning analytics model will enable improved insight into student engagement with learning activities. These will help us to pinpoint where students are hitting challenges in their learning and most importantly to understand where they disengage from the learning process.

In the medium-term there are developments in the field of Artificial Intelligence (AI) which could significantly improve the support we are able to offer to content creators by offering real-time Learning Design advice based on machine learning. This work is underpinned by work to review the usage of the existing Learning Design taxonomy and to ensure that machine learning is able to pick up the distinctions between various types of activity.

Any further developments will be built upon what is a very strong base, but will also need to take into account any changing dynamics for curriculum production at the University. For instance, the University is seeing an increase in students wishing to study at full-time intensity. With curriculum designed for part-time study intensity this creates a series of new challenges and the Learning Design approaches will need to support teams with meeting these challenges.

Conclusion

As a fully established and matured process, Learning Design at The Open University has become a part of the norm for curriculum design and is growing from strength to strength as it learns from new initiatives and is able to build these into the work of the team and University. The original creators of the OU Learning Design process would never have wished for their creation to stand still and the hard work of the practitioners and researchers at the University is ensuring that there is an ongoing evolution of approach.

By continuing to learn from these new initiatives and being able to both develop staff and adapt the process, Learning Design has been able to move with the times and adapt to change both internally and externally. This requirement seems likely to remain as a key factor for the University as the sector and picture for distance learning continues to change at pace. It's a big strength of the process that it is able to adapt and that will be key to the ongoing success of Learning Design at The Open University in the coming years.

References

- van Ameijde, J., Weller, M., & Cross, S. (2018). Learning Design for student retention. *Journal of Applied Perspectives in Applied Academic Practice*, 6(2), 41-50.
- Evans, G., & Chang, D. (2017). Collaborative online learning at a distance – a case study and developing the knowledge base. *Book of abstracts and synergy projects, Eden Conference 2017*.
- Evans, G., & Gallen, A. (2017). Adaptive learning as a tool for supporting diverse students with threshold concepts at a distance. *Book of abstracts and synergy projects, Eden Conference 2017*.
- Galley, R. (2015). *Learning Design at The Open University*. The Open University: Milton Keynes.
- Nguyen, Q., Rienties, B. & Toetenel, L. (2017). Unravelling the dynamics of instructional practice: a longitudinal study on learning design and VLE activities. *Proceedings of the Seventh International Learning Analytics & Knowledge Conference, Vancouver, British Columbia, Canada 2017*, 168-177. ACM, New York, NY, USA.
- Rienties, B., Lewis, T., McFarlane, R., Nguyen, Q., & Toetenel, L. (2018). Analytics in online and offline language learning environments: the role of learning design to understand student online engagement. *Journal of Computer-Assisted Language Learning*, 31(3), 273-293.
- Rienties B., Nguyen Q., Holmes W., & Reedy K. (2017). A review of ten years of implementation and research in aligning learning design with learning analytics at the Open University UK. *Interaction Design and Architecture(s) Journal*, 33, 134-54.
- Rienties, B., & Toetenel, L. (2016). The impact of learning design on student behaviour, satisfaction and performance: a cross-institutional comparison across 151 modules. *Computers in Human Behavior*, 60, 333-341.

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Toetenel, L., & Rienties, B. (2016). Learning Design – creative design to visualise learning activities. *Open Learning*, 31(3), 233-244.