To cite this Article / Käytä viittauksessa alkuperäistä lähdettä:

Annala, H. (2023) Learning Design. Teoksessa Teräs, H. & Brunton, J. (toim.) Reimagining Higher Education: Case Studies on Designing for Inclusion, Equity, and Access in the BUKA Project. BUKA Project: Advancing Equity and Access to Higher Education Through Open and Distance Learning, s. 19-26.

URL: https://doi.org/10.5281/zenodo.8427632

Learning Design

Henri Annala[1]

The main theme of the capacity building activity with the BUKA project was focused on learning design, with a number of events focusing on topics such as 'learning design for authentic learning' and 'how to design an online course'. In this first subsection, some of the core knowledge and best practice on learning design that was shared between partner HEIs in capacity building lectures and workshops is presented.

Background

The concept of *instructional design (ID)* has roots in the fields of cognitive and behavioural psychology (e.g. Skinner, 1954) and later constructivism. However, it has only been used in education from the 21st century onwards with the advent of online learning and teaching, and the term *learning design (LD)* has often been preferred to ID in the context of education, as it shifts the perspective from teaching to learning. Even though the concept of LD has only been used actively for

---

a couple of decades, the fundamental idea behind it has, of course, been around for as long as education has existed.

In online education, LD has a critical role, as it takes up a larger proportion of teachers' working hours compared to classroom-based education. The work online educators need to do shifts from running the classes to preparing the environments, designing for student interaction, and scaffolding the learning process. In addition to taking a great deal of time, LD directly affects the learning outcomes as well: if the learning environment is built clearly and logically so that it caters for different kinds of students and supports them in reaching the learning goals, then the achievement of learning outcomes will be facilitated. The opposite is also true, unfortunately. According to Means et al. (2009), if we compare how students learn online and in the classroom, their performance does not so much depend on the delivery method, but more on the course content, structure and online educator. Taking all this into account, it is fair to say that LD needs to be an integral part of capacity building for teachers, especially those teaching online.

Learning Design Models

There are a great number of LD models, and each of them focuses on slightly different aspects of teaching and learning practice. Consequently, attempts to choose an appropriate LD model may feel overwhelming. However, it is important to realise that many of the benefits of following an LD model can be reached regardless of the model – the important thing is to use one (or even several). Following an LD model when designing online learning facilitates perceiving the overall structure and logic of the programme and enables seeing how different topics, modules, activities, and assessments are connected more easily. It also helps with noticing gaps in an LD, i.e. what is still missing, as well as identifying superfluous design elements that should be left out of the design. Additionally, it is useful in ensuring the consistency and quality of different elements in the programme. A useful technique to support any LD process is *storyboarding* (for an example, see Colman, 2022), which essentially means visually representing the various elements in a module plan (e.g. topics, tasks, assessments, meetings, etc.).

Next, a number of popular LD models are discussed briefly to offer some practical examples.

A good example of a popular LD model is ADDIE (Analysis, Design, Development, Implementation, and Evaluation), which provides a clear and well-thought-out process for setting up an online programme (Branch, 2009). It was originally created for the U.S. military in the 1970s, but later adopted to be used in education more widely. In the analysis phase, the programme or module creator needs to carefully analyse all the factors affecting the development of the programme, such as the goals of the organisation, the students' prior knowledge and skills, and potential barriers to using digital technologies. In the design phase, module objectives, topics, and evaluation are specified. The development phase focuses on the further development of the output of the design phase: producing the actual materials and content, and also testing out the module to an extent. The implementation phase is the phase where the module is launched for the first time with real students. Finally, the evaluation phase consists of obtaining feedback from the students and editing the module accordingly.

Figure 1

*The ADDIE Learning Design Model, (Obsidian Learning, 2017, based on Branch, 2009)*
© Obsidian Learning
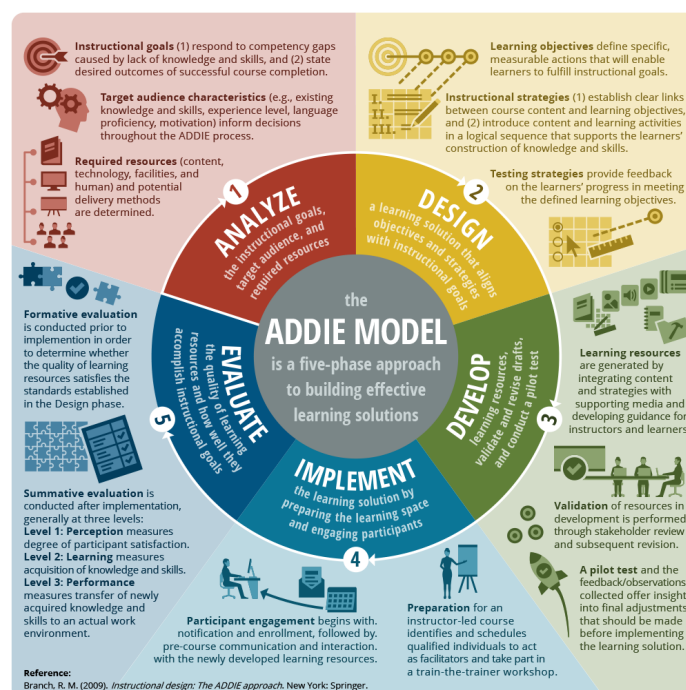
Another, slightly different example of an LD model would be the five-stage model of teaching and learning (Salmon, 2011), a well-established and widely adopted evidence-based framework to scaffold online teaching and learning that has been found very useful by many educators around the world. In the five-stage model, the focus is on supporting the learner in the online environment by gradually guiding them through the various phases of learning, and the educator is acting both as an 'e-moderator' and a technical support. The key concept here is scaffolding, which refers to a variety of instructional techniques used to move the learner progressively toward greater understanding and independence in the learning process. Scaffolding as a concept is of course not a new one, and Lev Vygotsky's theory of Zone of Proximal Development (ZPD) (1978; 1986) is often considered to be a parallel concept. However, there is far too much design work that has failed to take these aspects into account, and the results are unfortunately often visible in the form of poor learning outcomes and low student success rates. Figure 2 illustrates the five-stage model (please note the dual role of the facilitator):

Figure 2

The five-stage model (Salmon, 2022) © *Gilly Salmon CC-BY-NC-ND*
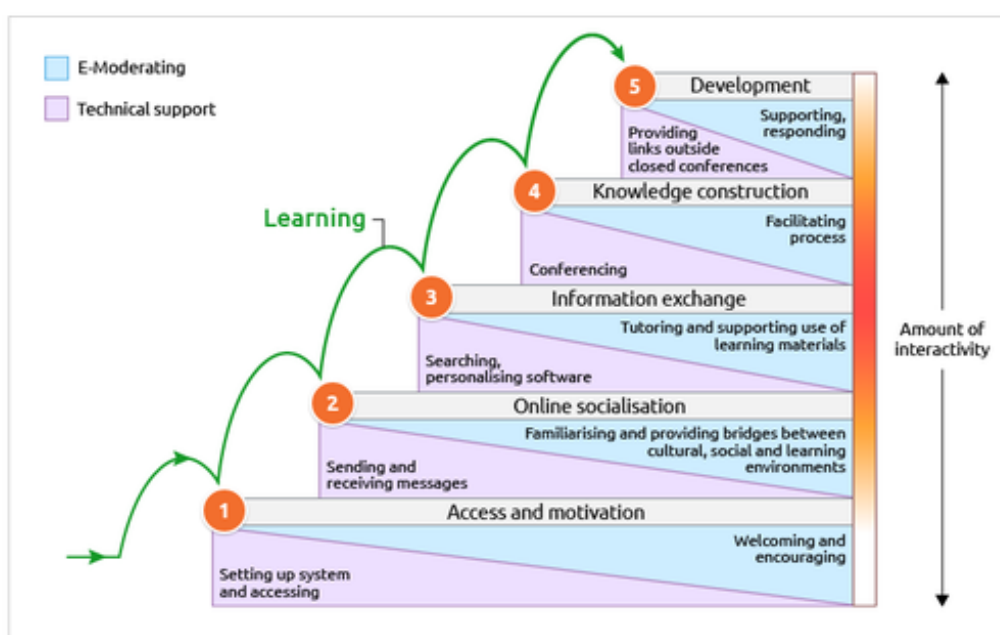
Capacity Building Cases in Learning Design

Building staff capacity in LD can be accomplished in different ways, but it is often a sensible approach to familiarise oneself with some practical examples to assess whether they can be utilised in one's own context. Tampere University of Applied Sciences (TAMK), the coordinating institution in the BUKA project, has a long history in staff capacity building, and they have, for example, offered training and support for educators wishing to start teaching online for at least the past 20 years. In 2015, there was a strong need to develop a model at TAMK to better support the implementation of high quality online teaching practices, and to tackle that challenge the Digimentor Network was created. Later in 2019, the network was extended to also cover Tampere University (Junes, 2020), with which TAMK collaborates very closely. The Digimentors were selected from among educators already working with the Tampere Universities Community who were enthusiastic about digital and online teaching.

The Digimentors were selected so that there was at least one in each school or faculty, and their tasks included offering peer support in using digital tools (both one-on-one help and team workshops), encouraging and empowering educators to utilise digitalisation, and disseminating best practices within their unit. Because no one knows everything, the Digimentor Network also acted as a meta-level peer support network, with each member offering support to all the others according to their respective areas of expertise. It became clear very quickly that the network was a beneficial initiative, and it is still operational in both institutions. The network proved to be especially valuable at the outset of the COVID-19 pandemic, as the Tampere Universities Community had an efficient support network already in place, unlike many other organisations. The concept was successful for two reasons: firstly, the Digimentors were educators, not IT professionals, and therefore they had pedagogical understanding and could effectively help other educators; and secondly, they were trusted members of their work communities, which made it easier for their colleagues to ask them for help.

Another very practical LD capacity building example from TAMK is a staff training programme called How to Design an Online Course, which began as an

initiative for TAMK teachers in 2016 (Pihlajarinne, Haapakangas & Annala, 2017), and later extended to cover Tampere University staff members as well. At times, it was also offered as a paid-for course for external participants from around the world. The idea of the course is to capacitate educators to teach online through an online programme that will support them step by step in the process of designing their own online modules. At the same time, the programme offers the participants a hands-on example of what well-designed online learning is like. Everyone who joins the programme has their own design ideas that they will work on as the programme progresses. The programme has been run now altogether nine times, and it has naturally evolved a great deal over the years based on the feedback and experiences. Because of this evolution, the completion rate of the programme has, for instance, risen from 31% to 91%, and the feedback has been very positive. The main LD-related takeaways from running the programme are:

- **Authenticity**: A programme that focuses on designing online learning should be an online programme itself, because it puts the participants in the students' shoes and it gives a practical example of what good online learning could look like;
- **Beginning**: To facilitate student success, it is key to focus on the first few weeks by establishing an active facilitator presence and a sense of community through frequent interaction and collaboration;
- **Collaboration**: One of the fundamental concepts in successful online learning, but requires careful planning because of different skill sets, interests, and schedules;
- **Flexibility**: Educators are busy and it is hard to commit to a training course that has a lot of deadlines and requires hard work. Offering flexibility within the deadlines is therefore important;
- **Incentive**: Most educators have been eager to participate because they feel the course is useful to them, but some educators might benefit from a more top-down incentive (specifically allocated resources).

- **Relevance**: The programme should meet the pre-existing needs of the participants. It is a good idea to survey their needs before the programme starts.
- **Quality**: It is important to give the participants different angles to view their courses from through ample feedback and resources.

Conclusion

In conclusion, choosing and using LD in module creation might be time consuming for the instructor when planning a module. However, it will save them time later during the module as the students are able to progress more smoothly, and as a result, need to ask fewer questions while gaining better learning outcomes.

References

Branch, R. M. (2009). *Instructional design: The ADDIE approach.* Springer.

Colman, H. (2022). *eLearning storyboard 101: How to map out an online course* [Free Template]. iSpring. https://www.ispringsolutions.com/blog/elearning-storyboard

Junes, S. (2020). EUNIS 2020: *Digimentors promote good practices and knowledge sharing.* University of Helsinki. https://www.eunis.org/download/2020/EUNIS_Book-of-Abstract_2020.pdf

Means, B., Toyama, Y., Murphy, R., Bakia, M., & Jones, K. (2009). *Evaluation of evidence-based practices in online learning: A meta-analysis and review of online learning studies.* US Department of Education. http://eric.ed.gov/?id=ED505824

Obsidian Learning (2017). *Instructional design resource: ADDIE infographic.* Obsidian Learning. https://obsidianlearning.com/blog/2017/02/instructional-design-resource-addie-infographic.html

Pihlajarinne, H., Haapakangas, V. & Annala, H. (2017). *First experiences from "how to design an online course" for TAMK teachers.* TAMK-konferenssi - TAMK Conference 2017. Learning and Working Together. Tampere: Tampereen

ammattikorkeakoulu, Tampereen ammattikorkeakoulun julkaisuja, 125-131.
https://urn.fi/URN:NBN:fi:amk-2017121421239

Salmon, G. (2011). *E-moderating: The key to teaching and learning online* (3rd ed.). Routledge.

Salmon, G. (2022). *The five stage model.* Gilly Salmon.
https://www.gillysalmon.com/five-stage-model.html

Skinner, B. F. (1954). *The science of learning and the art of teaching.* Harvard Educational Review, 24, 86–97.

Vygotsky, L. S. (1978). *Mind in society: The development of higher psychological processes.* Harvard University Press.