

**DFL**

Learning Design at Nordic and Baltic Universities

OLA KNUTSSON **MIKKEL GODSK** **KOLBRÚN FRIÐRIKSDÓTTIR**

*Author affiliations can be found in the back matter of this article

COLLECTION:
DESIGNS FOR
LEARNING
CONFERENCE:
CONCEPTUALIZING
DESIGN

RESEARCH

**STOCKHOLM**
UNIVERSITY PRESS

ABSTRACT

Learning Design (LD) is gaining global traction in higher education driven by its systematic approach to supporting educators in designing teaching practices for students' learning based on pedagogical theory and supported by design tools. While extensive research has been conducted, limited practice is shared across the Nordic and Baltic universities, contradicting the core ambition of LD to promote sharing of effective learning designs. Thus, to support sharing of practice and knowledge, this article investigates LD practices through a systematic literature review, systematic web searches, and study visits. The research aim is to uncover what LD practices exist at the Nordic and Baltic universities. In total, the research identified 26 LD practices at 16 Nordic and Baltic universities as of August 2024 and a total of 22 different design tools. It also revealed diverse LD practices ranging from open-ended, do-it-yourself (DIY) approaches to comprehensive and often orchestrated practices facilitated by educational developers or peers. In addition, the article discusses that important phases of the learning design process are missing out both when it comes to institutional support for educators as well as available learning design tools.

CORRESPONDING AUTHOR: Ola Knutsson

DSV – Computer- and
Systems Sciences, Stockholm
University, Sweden
knutsson@dsv.su.se

KEYWORDS:

Learning Design; educational
development; designs for
learning; design tools; design
assessment; design thinking

TO CITE THIS ARTICLE:

Knutsson, O., Godsk, M.,
& Friðriksdóttir, K. (2025).
Learning Design at Nordic and
Baltic Universities. *Designs for
Learning*, 16(1), 36–49. DOI:
[https://doi.org/10.16993/
dfl.239](https://doi.org/10.16993/dfl.239)

INTRODUCTION

Learning Design (LD), here broadly defined as a supported process of “devising new practices, plans of activity, resources, and tools aimed at achieving particular educational aims in a given situation” (Mor & Craft, 2012, p. 86), is gaining global traction in higher education driven by its systematic approach to supporting educators in designing teaching practices for students’ learning based on pedagogical theory and supported by design tools (Conole, 2013; Dobozy & Cameron, 2018). While extensive research has been conducted in Australian, Dutch, and British contexts (Dalziel et al., 2016; Lockyer et al., 2008; Mor & Craft, 2012), including studies that map existing LD practices and discuss their conceptualisation (e.g., Dalziel et al., 2016; Dobozy & Cameron, 2018; Mor & Craft, 2012), research concerning the Nordic and Baltic countries has been limited to isolated case studies (e.g., in the journals *Designs for Learning*, <https://designsforlearning.nu/>, *Learning and Media*, <https://lom.dk/>, and in conference proceedings). This is a paradox, as a core ambition of Learning Design is to support the sharing and reuse of effective learning designs in a way that is practical both for the educators who originally created the design and for those who can benefit from it (Dalziel et al., 2016). Thus, to support the sharing of practice and knowledge, this article investigates LD practices through a systematic literature review, systematic web searches, and study visits. In addition, although a range of LD approaches and various representational systems have been identified and effectively shared beyond Nordic and Baltic universities (Dalziel et al., 2016), it is surprising that few, if any, studies examine how LD processes genuinely support a coherent design process. This is notable given that “design thinking” — or key characteristics of design thinking such as student-centred learning with a focus on students’ needs (e.g., Damsa & de Lange, 2019) and the active involvement of students in the design of teaching (e.g., as “partners”, see Mercer-Mapstone et al., 2017) — is often recognised as a useful competency for educators in higher education today, particularly in relation to addressing educational challenges (Bower, 2017; Henriksen et al., 2017; Tsai & Chai, 2012). Therefore, the research aims, firstly, to identify existing LD practices at Nordic and Baltic universities and describe them according to the core principles of LD; and secondly, to discuss the implications of these practices.

THE CONCEPT AND PROCESS OF DESIGNING FOR LEARNING

Although Mor and Craft’s (2012) definition of LD includes the term “devising” thereby recognising that educators need to conceive and design specific teaching activities, plans, etc., the definition is simultaneously so broad that nearly all forms of teaching planning — whether

conscious or unconscious — fit within it. As pinpointed by Dobozy and Cameron (2018) in the context of a recent special issue on LD in the *Australasian Journal of Educational Technology* (AJET), there is still no unified definition of LD. Similarly, Cross et al. (2011) identify as many as six other possible conceptualisations, ranging from viewing LD as an artefact to an aspiration. Among these, the conceptualisation of LD as an artefact — such as a teaching plan, a shareable representation of teaching and learning activities, an exemplar, or a design pattern — is also widely used (see, for example, Agostinho, 2011, and Goodyear, 2005). However, this ambiguity often leads to confusion, as the process and the outcome of the process — i.e., the product — tend to be conflated. Therefore, to map and understand LD practices meaningfully and what they entail, there is a need for a conceptualisation that goes beyond short definitions that narrowly focus on either process or product (Godsk, 2018). For that reason, Godsk’s (2023) characterisation of LD (further developed from Dalziel et al., 2016 and Godsk, 2018) was adopted to map the design practices. It describes LD by means of five compulsory and one optional generic characteristic. The six characteristics are (1) pedagogy-informed teaching, where educators base their practice on pedagogical theory using various models and frameworks. (2) Educators act as active designers, making explicit pedagogical choices and implementing designs in their teaching practice, which fosters a sense of ownership and understanding of the materials. (3) The focus is on student learning, emphasising the learning process and outcomes over merely developing materials. (4) A range of tools, resources, and methods, referred to as design aids to support and enhance the design process. (5) LD promotes reusability and sustainability by providing a common language and tools to share, represent, and reuse teaching practices, contributing to quality assurance and sustainable educational development. (6) Finally, the optional characteristic, which is often the goal of LD but not necessarily a requirement, is that it accommodates the transformation of traditional face-to-face teaching into technology-enhanced, blended, and online learning.

As evident in both Mor and Craft’s definition as well as in the descriptions by Dalziel et al. and Godsk (2018; 2023), design as a process is an integral part of LD. Nevertheless, the design process often appears as something implicit in the LD literature, with design being referred to as an inherent process in educators’ daily work. Designing is typically not described as an explicit process or further unfolded with its different phases — that is, with a strong focus understanding and framing problems before creating solutions in an iterative manner. This interplay between problem discovery and solution generation is emphasised in Design Thinking literature (e.g.,

Simon, 1988; Cross, 2023). Instead of talking about a “Problem space”, some researchers used the term “Goal space”, indicating that design problems are something different from mathematical or engineering problems (Stempfle & Badke-Schaub, 2002). The literature and web searches found that there is very little explicit attention given to these elements of the design process in the context of LD, despite being prominent or debated in other areas of design (Cross, 2023). However, in the practical setting of LD, the explicit focus on the design process could play an important role for getting a better understanding of practices, methods, and tools used in higher education. Several different conceptualisations of the design process from other design areas exist (e.g., Löwgren & Stolterman, 2004; Double Diamond by Design Council, 2003); however, in the context of this research, one of the most well-known — the Stanford design thinking process (Camacho, 2016) — is utilised to analyse further and explain the design-centred characteristic (characteristic no. 2 above) of the identified design tools in the Nordic and Baltic LD practices. The conceptualisation of the design process, through the Stanford Design thinking model, is here used to identify which phases of the design process that educators get support on when it comes to the LD tools used or developed at the different Nordic and Baltic universities.

METHOD

The mapping of Learning Design practises at Nordic and Baltic universities was conducted via a four-step process. The first step involved a systematic literature search in the databases ERIC, EBSCO, The Royal Library Denmark, and Google Scholar using the search sequence: “learning design” AND (“Denmark” OR “Sweden” OR “Iceland” OR “Norway” OR “Finland” OR “Estonia” OR “Latvia” OR “Lithuania” OR “Åland” OR “the Faroe Islands” OR

“Greenland”) AND “university”. Google Scholar was included to compensate for the limitations that protocol-driven search strategies often entail and thereby minimise the risk of overlooking relevant practices (Greenhalgh & Peacock, 2005). A total of 15,861 potentially relevant articles and other records were identified, but an initial screening showed that it only made sense to examine the records the databases returned as most relevant. To be on the safe side, the top 50 from each database were screened. As ERIC only returned 10 hits and 10 hits were duplicates, 150 articles remained and were screened at title level of which 43 were excluded. The remaining 107 articles were retrieved and screened at both abstract and content level, and their eligibility and relevance to LD practice were discussed by the three researchers. Three were found to be relevant and were included in the mapping. Details regarding the inclusion and exclusion criteria are provided in Table 1.

The second step involved a systematic search for LD practices described on the websites of universities using the search string “Learning Design [name of university]” on Google. The systematic search included all public Nordic and Baltic universities with over 10,000 students or the largest university measured by enrolments in each respective country (N = 44). This identified a total of 11 practices. The reason for this focus was partly to ensure that the searches would cover all Nordic and Baltic countries and partly to create a framework for the mapping that was delimited and as comparable as possible. For example, there are often differences in how research-intensive a university is, the extent of research-based teaching, class sizes, student admission, and the level of regulations governing teaching, depending on whether it is a public or private university.

The third step consisted of six study visits, which included meetings with educators, researchers, and educational developers at six universities in the Nordic countries. To obtain more detailed insights, the staff at

	INCLUSION	EXCLUSION
Type of institution	Public university.	All other types of institutions, including private universities and university colleges.
Scale of the institution	University with 10,000 or more enrolled students or the largest university in the country.	University with fewer than 10,000 enrolled students, which is not the largest in the given country.
Country	The Nordic and Baltic countries.	Non-Nordic and Baltic countries.
Learning Design practice	The Learning Design concept is used to describe an educational development practice that aligns with Mor and Craft’s definition (2012).	The concept is not used to describe an educational development practice and/or it is difficult to determine whether the practice aligns with Mor and Craft’s definition (2012) or the five generic characteristics (Godsk, 2023). Learning Design research projects without a practical implementation are excluded.
Language	Practices described in English or Scandinavian (except Faroese).	Practices not described in English or Scandinavian (except Faroese) languages.
Year	Ongoing or recently discontinued (less than five years ago).	Practices discontinued more than five years ago.

Table 1 Inclusion and exclusion criteria.

each university were asked a set of questions regarding their LD practices (see Appendix A). Each conversation began with an introduction to the project and a request for consent to participate. In addition, permission was sought to include their practices on the Learning Design Map and in the Learning Design Toolbox. This step was constrained by the project's resources and thus carried a bias related to the authors' own networks and relationships.

To offset this bias, the process included a final, fourth step aimed at validating the already existing practices and identifying any overlooked ones. This was achieved with a workshop at the Designs for Learning conference on 28 August 2024 in Stockholm, where participants were invited to add their own practices to the collective Learning Design map using the online tool Mentimeter. This identified 11 practices, of which four were within the inclusion criteria. Three validated already identified practices, and one additional practice was added to the map.

To determine whether a practice was eligible and qualified as a LD practice, the overarching characteristic was that “Learning Design” is used as an educational development methodology (Conole, 2013; Mor & Craft, 2012). This means the term was not only used to refer to, for example, a teaching plan, template for teaching, or a design representation. Furthermore, five core characteristics of a LD were analysed as much as possible: (1) that the educational development is informed by pedagogy through pedagogical theory, models, or similar; (2) that the educators are active designers in the process; (3) that there is a focus on student learning; (4) that various tools, templates, workshops, etc. are utilised as part of the design process; and (5) that the process involves a form of language aimed at sharing and reusing effective practices (Dalziel et al., 2016; Godsk, 2023).

When it comes to the tools, the design thinking process was used as a lens to identify where in the design process they might be used. This lens also helped identify gaps and where most efforts in tool development have taken place, as well as categorise each tool according to its role — or suitability for — the design thinking phases: Empathise, Define, Ideate, Prototype, or Test.

The applied method entailed a limitation regarding the analysis of LD practices and the identified tools. This was because practices identified through searches or in the literature did not necessarily provide a sufficiently in-depth picture of the given practice in relation to the aforementioned 5+1 characteristics. For example, it might have been unclear which design tools were used, their role, to what extent the process was facilitated, and which phases of design thinking were covered. Another limitation related to the visibility of practices. Universities did not necessarily share their LD practices publicly on the internet, or they might also have been described in a language that was not covered by the searches.

LEARNING DESIGN PRACTICES

In total, the literature review, web searches, interviews, and workshop identified 26 LD practices at 16 different universities across seven Nordic and Baltic countries as of August 2024. The practices involved a total of 22 different design tools, of which three were design assessment tools. The map in Figure 1 indicates the number of identified LD practices for each of the Nordic and Baltic countries (excluding Greenland, where no LD practice was identified).

In addition to the number of practices, the search and analysis based on the aforementioned five core

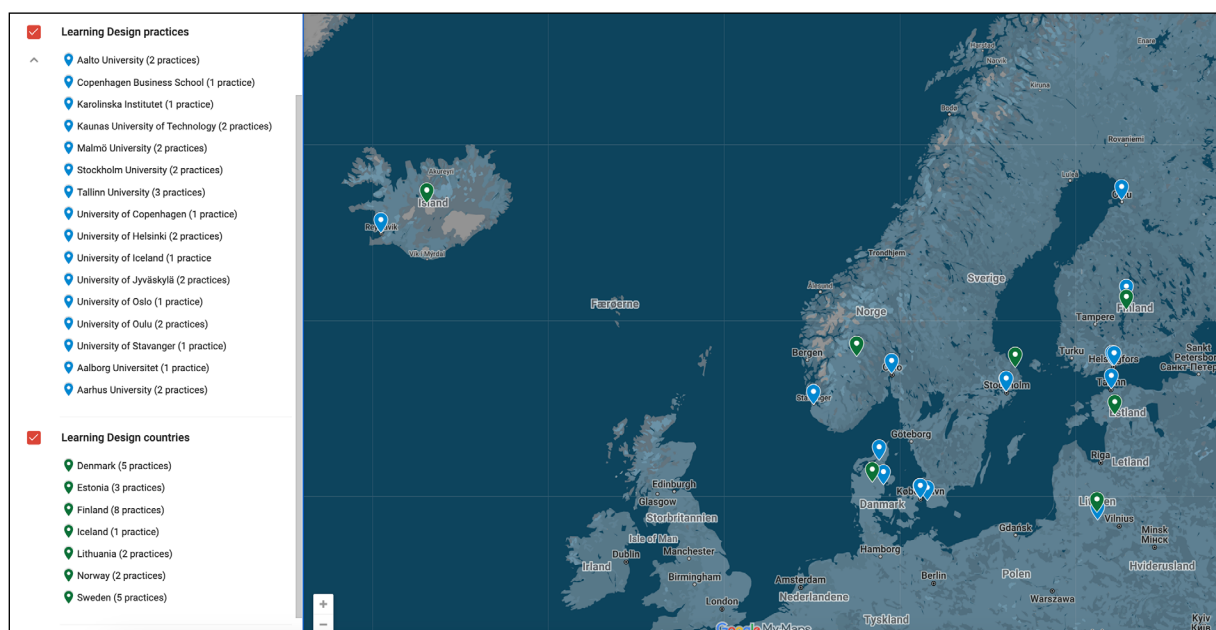


Figure 1 The Nordic and Baltic Learning Design map. © 2024 Google.

characteristics of LD (see Method) also revealed a diversity in the ways LD was applied. These ranged from open-ended, do-it-yourself (DIY) approaches based on a provided didactical model, design, or IT tools (e.g., for Learning Analytics) to comprehensive and/or more orchestrated design processes that for instance included one or more workshops, practices for sharing designs, evaluation, or impact assessment of designs. In

particular, LD practices varied significantly in whether LD was primarily utilised to merely inspire or kick-off a (re) design of teaching — potentially with blended or online learning in mind — (here referred to as the “open” or “semi-open” approach) or as a more thorough process of developing, implementing, and evaluating teaching (here referred to as a “facilitated” approach). These approaches are further described in the sections below and in [Table 2](#).

INSTITUTION	LEARNING DESIGN PRACTICES	LEARNING DESIGN TOOLS	REFERENCES
Aalborg University, Denmark	ABC Learning Design as DIY for blended learning and educational development in general. (open)	ABC Learning Design method	Aalborg University (n.d.)
Aalto University, Finland	Flexible DIY workshop-based approach (open) & Design student hackathons as a LD practice for development-focused events	Teaching Lab Design Kit incl. the Splash model, The Design Book for Online Learning incl. the Learning Design Toolkit, Visual Toolbox for Designing Online Learning, & Education Experience Canvas	Aalto University (n.d.)
Aarhus University, Denmark	Educational development methodology at the university pedagogical programme (facilitated) & Blended learning workshops and courses based on the STREAM model. (semi-open)	Activity profiler & LDTool (Wollongong) & Efficient Learning Design for assessing designs & the STREAM model	Aarhus University (n.d.)
Copenhagen Business School, Denmark	DIY, research-based guidance with practical tools. (open)	Course design models	Copenhagen Business School (n.d.)
Helsinki University, Finland	LD projects that often involve students in the process. Focus on emerging educational technologies (e.g., AI) (facilitated)	Learner-centered design framework	Helsinki University (n.d.); Saadatmand (2017)
Karolinska Institutet, Sweden	Workshop and several self-paced courses (open, semi-open, and facilitated)	Blended Learning Design Toolkit & ABC Learning Design method & Toolkit for designing assessment	Karolinska Institutet (n.d.)
Kaunas University of Technology, Lithuania	Course on design-based thinking approach to teaching and learning. (semi-open) & Masterclass on leading and (re)design of study programs. (semi-open)	Twente education model	Kaunas University of Technology (n.d.)
Malmö University, Sweden	Digital transformation of writing skills (open) & Diverse practices of educational development (open/semi-open)	Flip and write & PESTEL	Malmö University (n.d.)
Stockholm University, Sweden	LD as a module of a course (semi-open) & Open ABC workshops (semi-open)	Learning design patterns & ABC Learning Design method	Stockholm University (n.d.)
Tallinn University, Estonia	Digitally Transforming Teachers (semi-open) & Digiloping Teachers program (facilitated) & Design thinking in Higher Education (facilitated)	Hands-on activities with robots & Guidebook and e-learning courses.	Tallinn University (n.d.)
University of Copenhagen, Denmark	Extended ABC Learning Design workshops for programme development (involving students). (semi-open)	ABC Learning Design method	University of Copenhagen (n.d.)
University of Iceland, Iceland	Workshops for educators (semi-open)	ABC Learning Design method	University of Iceland (n.d.)
University of Jyväskylä, Finland	Learning environment design (facilitated) & JYULearn: designing learning spaces, multi-sited and digitally supported (facilitated)	No specific tools.	University of Jyväskylä (n.d.)
University of Oslo, Norway	Learning Analytics visualisations to support educators' Learning Design choices. (open)	Dashboard with visualisations based on online discussions	Kaliisa et al. (2022), Kaliisa & Dolonen (2023).
University of Oulu, Finland	Innovating Learning Design in Higher Education (iLed) (facilitated) & iLed workshop using Balanced Design Planning (BDP) tool (facilitated)	BDP Tool	University of Oulu (n.d.)
University of Stavanger, Norway	Learning design for flexible education (FLed)	Learning design patterns	University of Stavanger (n.d.)

Table 2 Overview of Learning Design practices and tools in the Nordic and Baltic countries.

THE OPEN APPROACHES TO LEARNING DESIGN

Of the total 26 identified LD practices, the mapping found 8 open LD practices. The open practices are characterised by educators who are provided with design aids, e.g., tools, pedagogical/didactical models, examples, archives, etc., to support their own development and implementation of a learning design. It is (mainly) up to the educators how these aids are utilised. The open approaches consist, for example, of educators' designs for learning being shared via a web-based archive for other educators to learn from or build upon these designs (e.g., design patterns at University of Stavanger) or where useful pedagogical and didactic models are shared and explained on a website (e.g., Copenhagen Business School). At the University of Oslo, educators' design choices and feedback are supported using a dashboard about students' progression (Kaliisa et al., 2022). Other universities benefit from comprehensive collections of design tools to support educators' design thinking and/or integration of educational technologies such as using the Teaching Lab Design Kit, the SPLASH model, and "The Design Book for Online Learning" (Huhtanen, 2019) at Aalto University as well as the Learning Design Toolkit (<https://fitech.io/app/uploads/2019/09/Learning-Design-Toolkit-v2.pdf>). Both are created by Akseli Huhtanen in consultations with specialists across FITECH Network University in Finland and available in multiple languages, draws on the science of learning, general university pedagogical guidelines, and design thinking. Its aim is to pave the way for the design of learning experiences, particularly in an online context, where the focus is on learners and their actions. The aforementioned Design Book provides additional guidance and explanations as well as a set of worksheets and checklists that serve as tools for self- and/or peer-assessment, or for quality assurance (Huhtanen, 2019).

Thus, open approaches to LD aim to make the design of learning more accessible by providing educators with a range of adaptable resources—such as pedagogical models, tools, examples, and archives—that they can use at their own discretion. These resources allow educators to tailor their design work to specific teaching contexts and explore new ideas for developing or rethinking their courses or programs.

THE SEMI-OPEN APPROACHES TO LEARNING DESIGN

The semi-open approaches to LD are characterised by educators that are involved in facilitated design activities (e.g., a workshop, a meeting, supervision) that utilise design aids; however, it is up to the educators to complete and implement their design in their teaching practice. Of the total 26 identified LD practices, the mapping found 10 semi-open practices. ABC Learning Design is by far the most widespread LD method among the more semi-open or facilitated practices. The mapping identified a total

of five LD practices based on ABC Learning Design, and according to the ABC Learning Design website (<https://abc-lid.org/3411-2/>), there are at least 11 higher education institutions in the Nordic countries and three associated communities on Facebook that use this method. The aim is to initiate a pedagogical development of teaching or a refresher of an existing teaching practice (e.g., the University of Iceland). The purpose can also be related to a specific desire to realise a particular pedagogical aim or teaching format, such as blended and online teaching, as seen in the many adoptions of ABC LD (e.g., Karolinska Institutet, Aalborg University, and University of Copenhagen) combined with other concepts such as the Balanced Design Planning (BDP) tool at the University of Oulu, as a masterclass for leaders on redesigning study programs at Kaunas University of Technology, or with a specific educational goal such as supporting student agency and creating learning spaces (University of Jyväskylä). The semi-open approach to LD combines guidance with flexibility, allowing educators to engage in structured design activities while adapting the design to their own teaching context.

THE FACILITATED APPROACHES TO LEARNING DESIGN

The facilitated processes are a more end-to-end variant of the semi-open approach. It is characterised by educators being involved in an orchestrated process facilitated by an educational developer or peer. The facilitator supports the educators in utilising relevant design aids and ensures that designs are devised and implemented in the educators' teaching practices. Aarhus University utilise LD as the general educational development methodology across their teacher professional development programme. Similarly, Stockholm University provides an entire 3 ECTS module on LD as a part of their university teaching course on Digital competencies. At both Aalto and Helsinki universities, students are involved in the design processes using hackathons or as paid interns. Some of the identified LD practices involve tools for assessing the actualised efficiency and/or sustainability of the design interventions. This includes Aalto and Aarhus universities that have tools to support the educators' reflection on the balance between efforts, impacts, and sustainability of their designs (Huhtanen, 2019).

Another example of facilitated approaches is the ABC Learning Design toolkit used at the Centre for Online and Blended Learning at the University of Copenhagen. This toolkit is applied to bring together course teams and semester groups to work on offline and online course design during workshops. The university also offers supplementary workshops for educators on how to utilise the university's Learning Management System, Absalon for course design. Absalon is thus used by practitioners to structure their courses effectively and support the curriculum by creating motivating learning activities that

require students' active participation, facilitating peer feedback, and providing instant feedback for teachers on their teaching.

The main advantage of facilitated LD is the structured, end-to-end support it provides. Educators follow a coordinated process guided by an educational developer or peer, which helps ensure a more consistent and well-organised design outcome. This approach can offer clearer direction and reduce the complexity of the design process.

LEARNING DESIGN TOOLS

Across the various LD practices, different design tools are discussed in relation to the Stanford design thinking process (Camacho, 2016) in order to highlight the tool's role in a design process:

1. Tools to understand the learning problem, the students, and their contexts (**Empathise**)
2. Tools to define and frame the problem (**Define**)
3. Tools for brainstorming and ideation, including analysis of existing designs (**Ideate**)
4. Tools to make designs testable by students and colleagues, in order to create a learning experience (**Prototype**)
5. Tools to critique designs and assess the impact of designs (**Test**).

Although the design thinking process might look like a linear process, it is a highly iterative process. Iteration might take place within one phase, or within a group of phases. This means that the process includes both divergence and convergence at different levels. An iteration of, for instance, Empathise might include discovering new problems that students and educators have. This leads to the next phase, Define, also needing to be reworked in order to align with the new understandings discovered in the Empathise phase, and so forth.

In the following, a selection of representative design tools is presented. When it comes to tools for problem identification, analysis and framing (**Empathise**), there are several canvases presented in the LD toolkit which are relevant there: *Target groups canvas*, the *Core content and Learning objectives canvas*, and the *Workload estimation canvas*. These three canvases can be used when working with a new course or re-designing a course. These canvases also tell that the design process is an iterative process, because the same tools could also be used for assessing a course, or prototypes (i.e., models) of the designs used in the course.

Tools for ideation (**Ideate**) could help the learning designer with brainstorming or sketching, or some other creative method for exploring a new future (i.e., new designs). This includes the canvas Learning Experience Ideation from the LD Toolkit (see Figure 4). The ABC LD (see Figure 2) is useful for prototyping a course represented

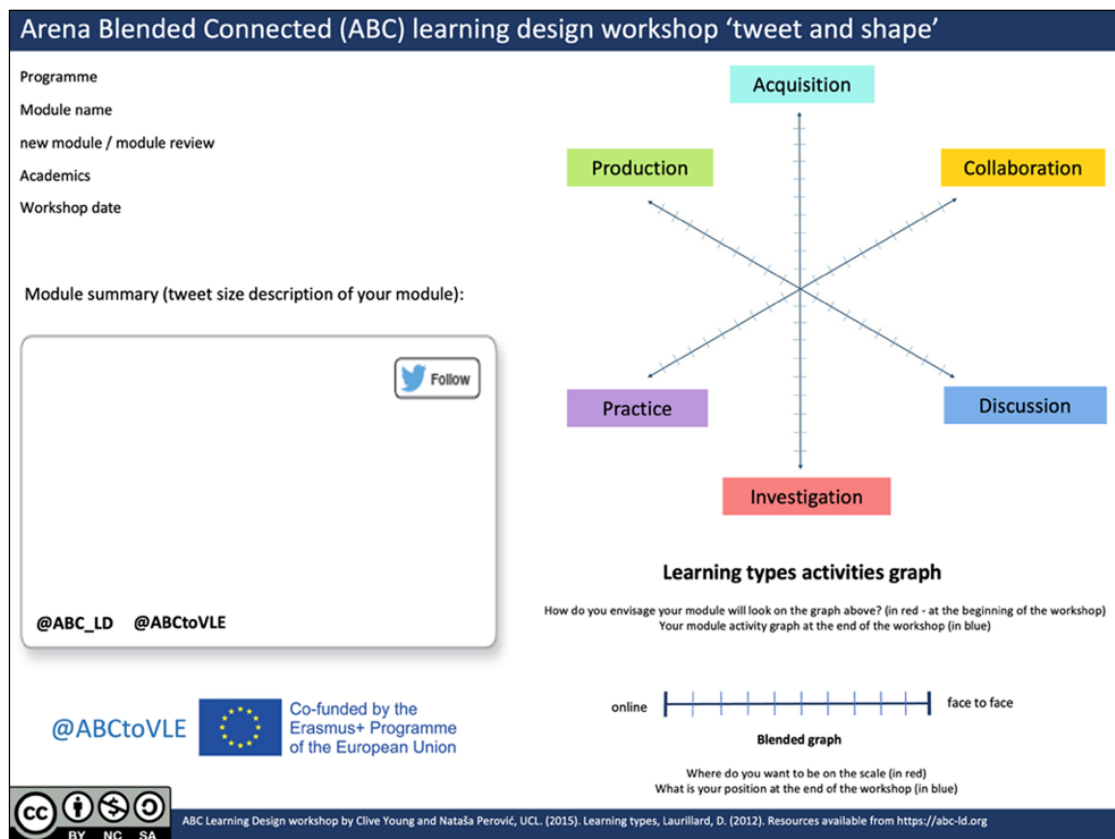


Figure 2 ABC Learning Design's tool for analysing learning types (Young & Perović, 2016).

Course title, level, programme, and credits (ECTS)

Course status

☐ New course
☐ Course review

Course design (general organisation, structure, and design)

Design scale

☐ Activity (minutes/hours)
☐ Lesson/session (hours/day)
☐ Lessons/sessions (week/s)
☐ Entire course (semester)

Modality

☐ Face-to-face teaching
☐ Technology as a classroom aid
☐ Blended learning (face-to-face and online)
☐ Fully online learning

Reference: Godsk, M. (2022). Activity Profiler, Version 1. <https://godsk.dk/activityprofiler>

Activity profile

Activity type	Example verbs	Involves assessment	% of student activity
Acquisition: attending to information	Read, watch, listen, think about, observe, review, consider, study	☐	____%
Communication and discussion with others	Communicate, debate, discuss, argue, share, report, collaborate, present, describe, question	☐	____%
Investigation and analysis of information	Search, use, list, order, classify, analyse, select, evaluate, collate, plot, discover, manipulate, visualise	☐	____%
Production of an artefact	Create, build, write, make, design, construct, produce, draw, compose, record, remix	☐	____%
Practice: applying learning in a setting	Practise, apply, mimic, experience, explore, investigate, perform, experiment, trial, model, simulate, improve	☐	____%

Figure 3 Activity Profiler (Godsk, 2022a) based on Open University's Activity Types (Open University, 2021).

LEARNING EXPERIENCE IDEATION

TEAM:

1

IMMERSION

IDEA FOR LEARNING TOPIC:

CURRENT HOT ISSUES RELATED TO TOPIC:

BIG NAMES & GREAT BOOKS ON TOPIC:

GREAT COURSES ON TOPIC:

2

IDEATION

PHYSICAL

FUN

RIDICULOUS

BUSINESS LIKE

PARLIAMENT LIKE

SCHOOL LIKE

LABORATORY LIKE

VIRTUAL

HOW MIGHT WE CREATE A LEARNING EXPERIENCE ON:

THAT IS:

3

RANKING THE IDEAS

BETTER EXPECTED LEARNING RESULTS

MORE WORK FOR TEACHER

Figure 4 Learning Experiences ideation (Huhtanen, 2019, p. 19).

with learning types (**Prototype**) The storyboard used in ABC (see Figure 5), might be seen as a prototype (i.e., a model) of a course. The ABC method as such includes ideation, but without any method or tool, and as the ABC toolkit does not include any tools for ideation, so here it

will only be discussed as a prototyping tool. Storyboards are considered to be seen as prototypes in design (Houde & Hill, 1997). The ABC storyboard (when finished) actually includes many short descriptions of specific designs used in a course. Another prototyping tool is the Activity Profiler (see Figure 3), which represent a course based on activity types.

Only a few tools for assessing the quality and effectiveness of designs (**Test**) were identified. Most were found in the Learning Design Toolkit from Aalto, which includes a *Checklist for Psychology of Learning*, a *Usability Checklist*, and the *Technical Implementation Checklist*. Likewise, this toolkit contains a ranking of ideas, which is used for early assessment of their balance between the required effort for the educator and the impact on learning. A similar assessment is included in Aarhus University's LD practice in their University Pedagogical Programme, where participants assess the required effort for design and delivery of their teaching in relation to the realised impact, as well as what is needed to achieve a justifiable and sustainable balance (Figure 7). At the University of Oslo, they are experimenting with a technical solution where network Learning Analytics, including students' collaborations and interactions, form the basis for the educator's design choices and delivery of teaching (see Figure 8, Kalliisa et al., 2020).

The searches only found a very limited number of tools in the direction of problem framing and definition (**Define**). One tool that goes in this direction is the Efficient Learning Design method (see Figure 7). Using this tool, the educator can assess the cost and added

value of seeking a solution to a specific problem. In for instance service design, tools such as Impact maps, and Customer Journey maps, are quite commonly used, and they help the designer to identify and select the relevant and realistic problem to solve. Here is a gap

in the available toolkits identified so far. However, one might argue that the ABC LD method has a little of this, with storyboarding as the main tool, but no explicit way to select one target problem is included in ABC. The ABC storyboard can include many solutions, but it is not clear

Figure 5 ABC Learning Design's storyboard tool for representing learning designs (Young & Perović, 2016).

Figure 6 Design patterns collected and shared in Figshare at Stockholm University.

what problem they solve, except adding missing learning types to a course. Here a design thinking approach could really help to put focus on what the target problem is, instead of creating a lot of solutions to implicit problems

that only the teacher knows about. What is not included in the Design Thinking process, is the representation of the future learning design. The study found two examples of how learning designs are represented and shared in the

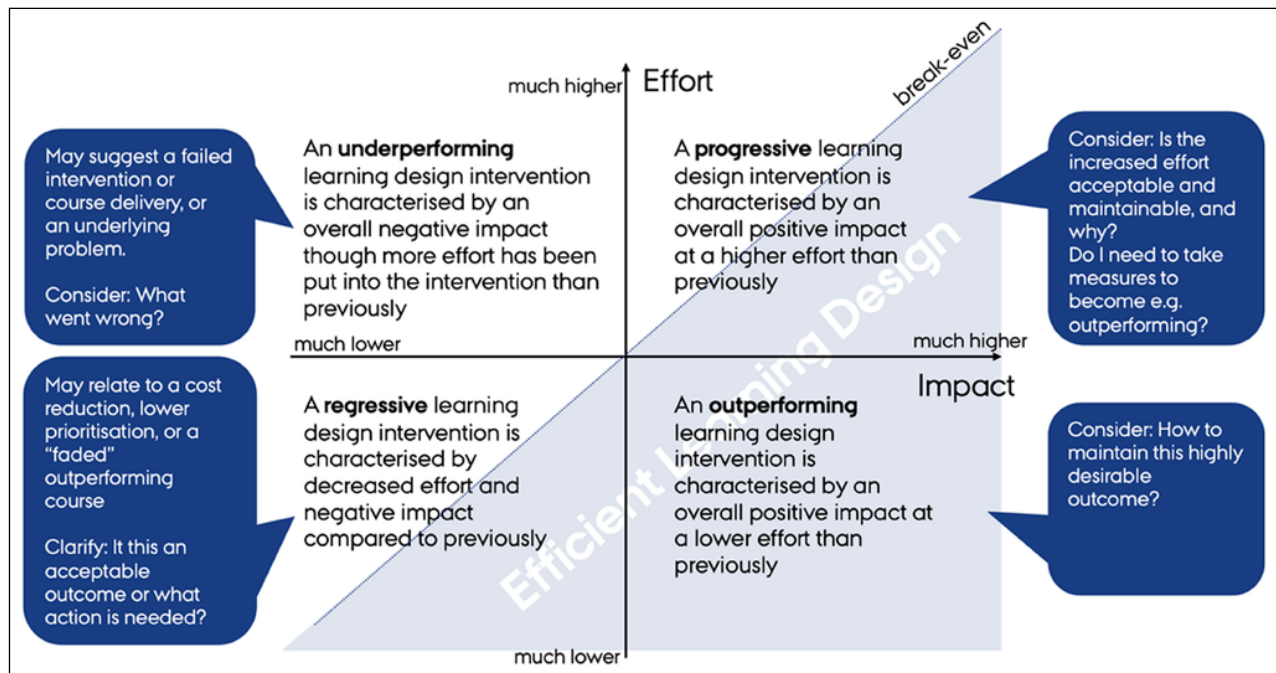


Figure 7 Efficient Learning Design method for discussing the efficiency and sustainability of learning designs at Aarhus University (Godsk, 2022b).

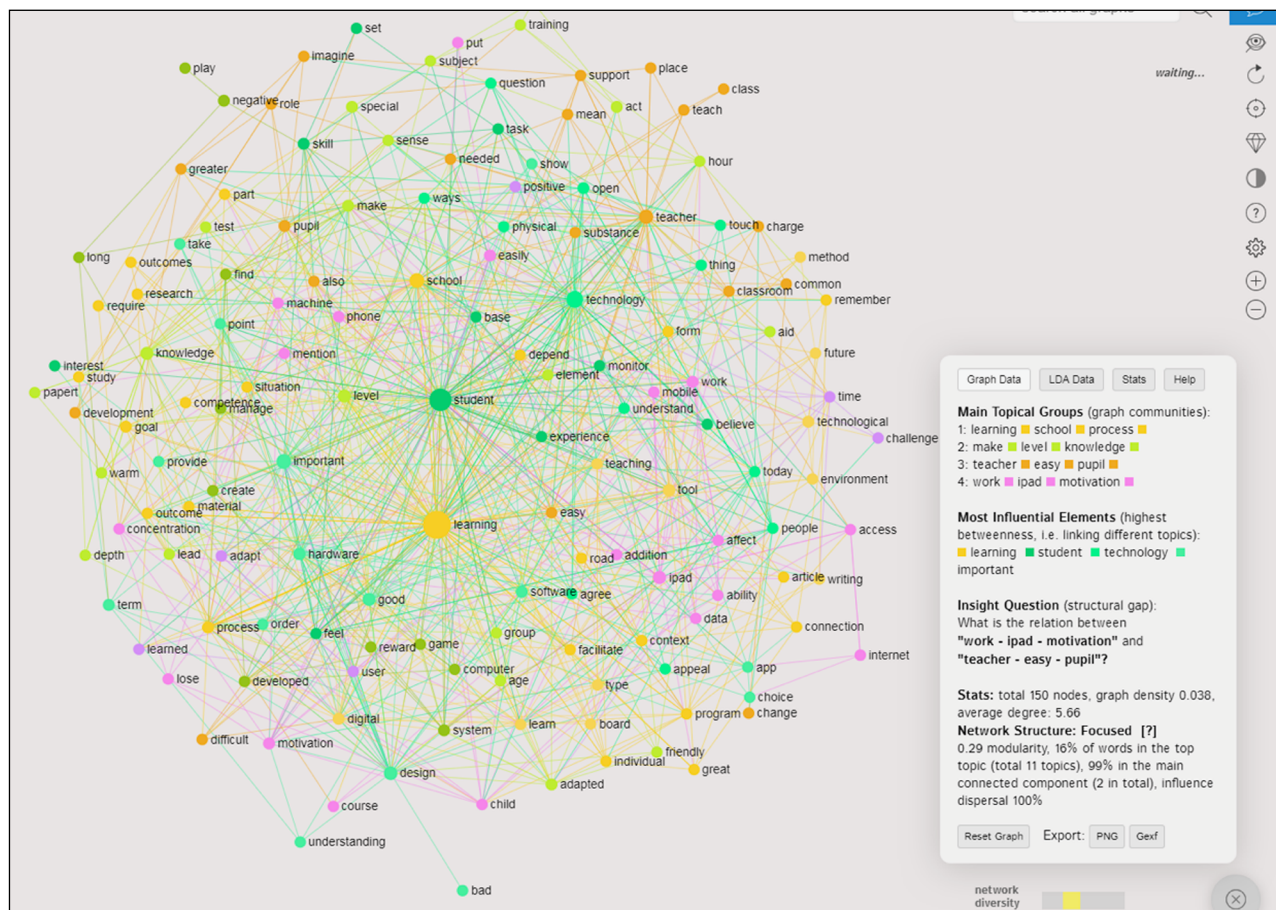


Figure 8 Network analysis for informing learning designs and their delivery at University of Oslo (Kaliisa et al., 2020).

form of design patterns, see for instance [Figure 6](#), where a number of learning designs are represented and shared from Stockholm University.

DISCUSSION, IMPLICATION, AND PERSPECTIVE

The exploration of LD tools such as ABC Learning Design, along with other models and practices prevalent in the Nordic and Baltic countries, reveals distinct characteristics that differentiate the Nordic approach to educational development. The Nordic approach to LD can often be described as “messy” or “entangled” ([Fawns, 2022](#)), with educators utilising a high degree of autonomy in a non-linear educational development process involving design tools, teaching methods, values, educational technologies, and context. This autonomy allows for diverse design processes and implementations of designs in teaching practices, which can be both a strength and a limitation.

The unstructured nature of this approach can foster creativity and adaptation to local contexts, but it may also lead to inconsistent quality and fragmented design processes. As noted in various studies, including those by [Eloranta et al. \(2021\)](#), while service design thinking has been widely adopted in Finnish higher education, there is still a notable absence of a systematic, iterative design process in much of the LD literature and practice across the region. The current LD models, such as ABC Learning Design, although effective in creating structured course designs, often lack critical elements of design thinking, particularly in the areas of divergence (ideation) and convergence (problem definition, refinement and testing).

One of the primary implications of existing learning design practices in the Nordic and Baltic countries is that design thinking appears to be only partially or superficially integrated into the process. As a result, the approach’s inherent potential to foster student-centred learning and address current, complex educational challenges is not necessarily being realised. While existing models provide useful frameworks, they often miss out on deeper engagement with design thinking principles, such as empathy, problem definition, iterative testing, and the inclusion of student voices in the design process. This lack of thorough design thinking can result in rigid, overly structured approaches that do not fully leverage the potential of creative, learner-centred educational design.

A potential way forward to address this lack of design thinking — while remaining compatible with the “messy”, “entangled”, and educator-led development of teaching that characterises Nordic and Baltic universities — is to develop a facilitated and structured yet flexible

approach that guides educators through reflective practice, helping them translate insights into concrete designs. This approach could incorporate structured prompts encouraging educators to empathise with students, define teaching and learning challenges, generate creative solutions, prototype designs, and test them through peer feedback. Such a reflective and collaborative process could also support student involvement as co-designers, ensuring their needs and perspectives are directly considered in the design process.

CONCLUSION

In conclusion, this study aimed to explore and map LD practices across Nordic and Baltic universities, focusing on what characterises the existing LD practices, including the level of educator support during the design process, and what tools are used. Through a systematic review the research revealed 26 LD practices in the Nordic and Baltic countries for the map. The map revealed that the most frequent practice is semi-open — that is, a practice where the educators are involved in facilitated design activities that utilise design tools, but it is up to themselves to implement their design in practice — and that limited sharing of practices and tools is taking place across institutions. Thus, this article and its map ([Figure 1](#) and [Table 2](#)) can serve as a foundation for improving collaboration and enhancing the exchange of LD practices and tools. Furthermore, this article should also be seen as an invitation to both the identified practices and those not found in the searches, with a view to validation, further elaboration, or sharing of practice.

Nevertheless, while current LD practices in the Nordic and Baltic context offer valuable LD tools and knowhow, they fall short in fully integrating design thinking principles. By developing and adopting a structured yet flexible approach that guides educators through all phases of design thinking, there is a likelihood that LD could result in more learner-centred, innovative designs that are both reflective and iterative, ultimately leading to improved educational outcomes.

LIMITATIONS

One limitation concerns the analysis of how LD may be applied and implemented. The classification into “open”, “semi-open”, or “facilitated” approaches is based on available descriptions (research articles and web sites), which may not fully capture the actual practices or the degree of support provided. As with the identification of LD tools and practices, publicly available information may be incomplete, lack contextual detail, or be framed in ways that obscure nuances in implementation.

APPENDIX A: INTERVIEW GUIDE

Guide for mapping Learning Design practices.
Formalities

- Purpose of project
- Include in Learning Design Map
- Include in Learning Design Toolbox

Context

- Informants/department/institution
- Time frame (when started/ended using LD)
- Their conceptualisation of Learning Design (methodology, product, practice...)
- Rationale/ambitions (the why) for adopting a Learning Design approach

Practice

- Practices (which includes LD). Model-based? Process-oriented?
- Number of practices, participants, workshops/deliveries
- P — Pedagogy informed
- L — Focus on the Learners. Are the students involved in the process and how?
- A — Designs Aids/tools (and assessment tools) — any relevant for the Learning Design Toolbox?
- D — Educators as designers? How do you ensure educator buy-in?
- R — Reuse, share, sustain?
- T — TEL? (incl. LMS-integration etc.)

Experiences with Learning Design

- Pros/drivers
- Cons/barriers

Perspectives

- Perspective/future directions/plans for Learning Design
- Other (references, websites, resources/tools/assessments...)

ETHICS AND CONSENT

The data collected and used in this article are based on open sources such as published articles and websites related to Learning Design. However, oral informed consent was used when meeting the staff at our study visits. In line with the Declaration of Helsinki (2008) this research has taken all measures to protect the privacy of the included people in the research. Although there are people behind the LD practises described in this article, all names and other identifiers are left out in this text to protect the individuals.

ACKNOWLEDGEMENTS

We want to thank the educators, researchers, administrators, and educational developers participating in our study visits. We also wish to thank Sofie Kathleen Lloyd Thomsen for assistance with the systematic literature and web searches.

FUNDING INFORMATION

This work was partly funded by Nordplus Higher Education, with the project grant title Network DLINC/2023.

COMPETING INTERESTS

The authors have no competing interests to declare.

AUTHOR AFFILIATIONS

Ola Knutsson  orcid.org/0000-0003-1760-9130

DSV – Computer- and Systems Sciences, Stockholm University, Sweden

Mikkel Godsk  orcid.org/0000-0002-8332-2712

Centre for Educational Development, Aarhus University, Denmark

Kolbrún Friðriksdóttir  orcid.org/0000-0002-1032-4397

Faculty of Icelandic and Comparative Cultural Studies, University of Iceland, Iceland

REFERENCES

- Aalborg University.** (n.d.). Learning Design. <https://www.cdul.aau.dk/learning-design>
- Aalto University.** (n.d.). Open-source tools for learning design. <https://www.aalto.fi/en/news/how-to-design-courses-for-actual-learning-stepping-on-the-shoulders-of-other>
- Aarhus University.** (n.d.). University Pedagogical Programme. <https://ced.au.dk/en/courses/university-pedagogical-programme>
- Agostinho, S.** (2011). The use of a visual learning design representation to support the design process of teaching in higher education. *Australasian Journal of Educational Technology*, 27(6). <https://doi.org/10.14742/ajet.923>
- Bower, M.** (2017). *Design of technology-enhanced learning: Integrating research and practice*. Emerald Publishing Limited. <https://doi.org/10.1108/9781787141827>
- Camacho, M.** (2016). David Kelley: From design to design thinking at Stanford and IDEO. *She Ji: The Journal of Design, Economics, and Innovation*, 2(1), 88–101. <https://doi.org/10.1016/j.sheji.2016.01.009>
- Conole, G.** (2013). Tools and Resources to Guide Practice. In H. Beetham & R. Sharpe (Eds.), *Rethinking Pedagogy*

- for a Digital Age. *Designing for 21st Century Learning* (pp. 78–101). Routledge.
- Copenhagen Business School.** (n.d.). Course design. <https://teach.cbs.dk/resources/course-design/>
- Cross, N.** (2023). *Design Thinking: Understanding How Designers Think and Work*. 2nd edn. London: Bloomsbury Publishing. <https://doi.org/10.5040/9781350305090>
- Cross, S., Masson, A., O'Donnell, C., & Galley, R.** (2011). *Identifying and changing key curriculum design practices*. Retrieved March 13, 2025, from http://www.online-conference.net/jisc/content2011/masson/Viewpoints_OULDI_FINAL.ppt
- Dalziel, J., et al.** (2016). The Larnaca Declaration on Learning Design. *Journal of Interactive Media in Education*, 1(7), 1–24. <https://doi.org/10.5334/jime.407>
- Damşa, C., & De Lange, T.** (2019). Student-centred learning environments in higher education: From conceptualization to design. *Uniped*, 42(1), 9–26. <https://doi.org/10.18261/issn.1893-8981-2019-01-02>
- Design Council.** (2003). *The Double Diamond*. Available at: <https://www.designcouncil.org.uk/our-resources/the-double-diamond/> (Accessed: 15 April 2025).
- Dobozy, E., & Cameron, L.** (2018). Special issue on learning design research: Mapping the terrain. *Australasian Journal of Educational Technology*, 34(2). <https://doi.org/10.14742/ajet.4390>
- Eloranta, S., Sirviö, T., Ruotsalainen, A. L., & Säätelä, S.** (2021). Service Design Thinking in Higher Education in Finland. *The International Journal of Design Education*, 16(1), 81. <https://doi.org/10.18848/2325-128X/CGP/v16i01/81-89>
- Fawns, T.** (2022). An entangled pedagogy: Looking beyond the pedagogy—technology dichotomy. *Postdigital Science and Education*, 4(3), 711–728. <https://doi.org/10.1007/s42438-022-00302-7>
- Godsk, M.** (2018). Improving STEM Undergraduate Education with Efficient Learning Design. *Open University* (United Kingdom). <https://doi.org/10.21954/ou.ro.0000d705>
- Godsk, M.** (2022a). Activity Profiler, Version 1. <https://godsk.dk/activityprofiler>
- Godsk, M.** (2022b). Learning Design as an efficient educational development methodology: conceptualization, assessment, and practice. In *Handbook of Digital Higher Education* (pp. 38–50). Edward Elgar Publishing.
- Godsk, M.** (2023). DUT Guide: Learning Design as an educational development methodology. *Dansk Universitetspædagogisk Tidsskrift*, 18(35). <https://doi.org/10.7146/dut.v18i35.141522>
- Goodyear, P.** (2005). Educational design and networked learning: Patterns, pattern languages and design practice. *Australasian Journal of Educational Technology*, 21(1). <https://doi.org/10.14742/ajet.1344>
- Greenhalgh, T., & Peacock, R.** (2005). Effectiveness and efficiency of search methods in systematic reviews of complex evidence: audit of primary sources. *Bmj*, 331(7524), 1064–1065. <https://doi.org/10.1136/bmj.38636.593461.68>
- Helsinki University.** (n.d.). Learning Design. <https://blogs.helsinki.fi/globalcampus/category/learning-design>
- Henriksen, D., Richardson, C., & Mehta, R.** (2017). Design thinking: A creative approach to educational problems of practice. *Thinking Skills and Creativity*, 26, 140–153. <https://doi.org/10.1016/j.tsc.2017.10.001>
- Houde, S., & Hill, C.** (1997). What do Prototypes Prototype? In M. G. Helander, T. K. Landauer, & P. V. Prabhu (Eds.), *Handbook of human-computer interaction* (2nd ed., pp. 367–381). North-Holland. <https://doi.org/10.1016/B978-044481862-1.50082-0>
- Huhtanen, A.** (2019). *The Design Book for Online Learning – Practical Tools for Designing High-quality Online Learning*. Aalto University/FITech Network University, 1–43. <https://fitech.io/app/uploads/2019/09/The-Design-Book-for-Online-Learning-v-1.4.1-EN-web.pdf>
- Kaliisa, R., & Dolonen, J. A.** (2023). CADA: a teacher-facing learning analytics dashboard to foster teachers' awareness of students' participation and discourse patterns in online discussions [Article]. *Technology, Knowledge & Learning*, 28(3), 937–958. <https://doi.org/10.1007/s10758-022-09598-7>
- Kaliisa, R., Kluge, A., & Mørch, A. I.** (2020). Combining checkpoint and process learning analytics to support learning design decisions in blended learning environments. *Journal of Learning Analytics*, 7(3), 33–47. <https://doi.org/10.18608/jla.2020.73.4>
- Kaliisa, R., Mørch, A. I., & Kluge, A.** (2022). 'My Point of Departure for Analytics is Extreme Skepticism': Implications Derived from An Investigation of University Teachers' Learning Analytics Perspectives and Design Practices. *Technology, knowledge and learning*, 27(2), 505–527. <https://doi.org/10.1007/s10758-020-09488-w>
- Karolinska Institutet.** (n.d.). Toolkit for designing assessments. <https://ki.instructure.com/courses/90>
- Kaunas University of Technology.** (n.d.). Twente education model. <https://www.utwente.nl/en/service-portal/educational-support/about-ut-education/twente-educational-model-tem>
- Lockyer, L., Bennett, S., Agostinho, S., & Harper, B.** (2008). *Handbook of research on learning design and learning objects: Issues, applications and technologies*. IGI Global. <https://doi.org/10.4018/978-1-59904-861-1>
- Löwgren, J., & Stolterman, E.** (2004). *Thoughtful interaction design: A design perspective on information technology*. MIT Press. <https://doi.org/10.7551/mitpress/6814.001.0001>
- Malmö University.** (n.d.). Flip and write. <https://orwellproject.eu/flip-and-write/>
- Mercer-Mapstone, L., Dvorakova, S. L., Matthews, K. E., Abbot, S., Cheng, B., Felten, P., ... & Swaim, K.** (2017). A systematic literature review of students as partners in higher education. *International Journal for Students as Partners*. <https://doi.org/10.15173/ijsap.v1i1.3119>
- Mor, Y., & Craft, B.** (2012). Learning design: reflections upon the current landscape. *Research in learning technology*, 20. <https://doi.org/10.3402/rlt.v20i0.19196>

- Open University.** (2021). OU Learning Design Activity Types framework. <https://www.open.ac.uk/blogs/learning-design/wp-content/uploads/2021/10/OU-LD-Activity-Types-Framework-October-2021-FINAL.pdf>
- Saadatmand, M.** (2017). Toward Open Networked Learning Environments: An Ecological Approach to Learning Design in MOOCs. In J. Johnston (Ed.), *Proceedings of EdMedia 2017* (pp. 978–981). Washington, DC: Association for the Advancement of Computing in Education (AACE). <https://www.learntechlib.org/primary/p/178412/>
- Simon, H. A.** (1988). The science of design: Creating the artificial. *Design Issues*, 4(1/2), 67–82. <https://doi.org/10.2307/1511391>
- Stempfle, J., & Badke-Schaub, P.** (2002). Thinking in design teams – an analysis of team communication. *Design studies*, 23(5), 473–496. [https://doi.org/10.1016/S0142-694X\(02\)00004-2](https://doi.org/10.1016/S0142-694X(02)00004-2)
- Stockholm University.** (n.d.). LD as a module of a university teaching course; ABC workshops. <https://www.su.se/centrum-for-universitetslararutbildning/kalender/digitala-kompetenser-for-undervisning-1.668285>; <https://www.su.se/centre-for-the-advancement-of-university-teaching/calendar/abc-method-for-course-design-1.693405>
- Tallinn University.** (n.d.). Eduspace. <https://eduspace.tlu.ee/en/digitally-transforming-teachers>
- Tsai, C. C., & Chai, C. S.** (2012). The “third”-order barrier for technology-integration instruction: Implications for teacher education. *Australasian Journal of Educational Technology*, 28(6). <https://doi.org/10.14742/ajet.810>
- University of Copenhagen.** (n.d.). ABC Learning Design. <https://cobl.ku.dk/course-development/course-design/abc-learning-design/>
- University of Iceland.** (n.d.). ABC Workshops. <https://setberg.hi.is/is/kennsla/abc-vinnustofur>
- University of Jyväskylä.** (n.d.). MultiLED Project. Multidisciplinary Perspectives on Learning Environment Design. <https://www.jyu.fi/en/projects/multiled-project-multidisciplinary-perspectives-on-learning-environment-design>
- University of Oulu.** (n.d.). Innovating Learning Design in Higher Education; Workshop on learning design and innovative pedagogies. <https://learning-design.eu/en/index>; <https://iled-project.eu/en/news/workshop-learning-design-and-innovative-pedagogies-held-university-oulu>
- University of Stavanger.** (n.d.). Learning design for flexible education (FLeD); Workshops on learning design and innovative pedagogies. <https://www.uis.no/en/research/learning-design-for-flexible-education-fled>; <https://iled-project.eu/en/news/workshop-learning-design-and-innovative-pedagogies-held-university-oulu>
- Young, C., & Perović, N.** (2016). Rapid and Creative Course Design: as easy as ABC? *Procedia – Social and Behavioral Sciences*, 228, 390–395. <https://doi.org/10.1016/j.sbspro.2016.07.058>

TO CITE THIS ARTICLE:

Knutsson, O., Godsk, M., & Friðriksdóttir, K. (2025). Learning Design at Nordic and Baltic Universities. *Designs for Learning*, 16(1), 36–49. DOI: <https://doi.org/10.16993/dfl.239>

Submitted: 16 September 2024

Accepted: 15 August 2025

Published: 02 September 2025

COPYRIGHT:

© 2025 The Author(s). This is an open-access article distributed under the terms of the Creative Commons Attribution 4.0 International License (CC-BY 4.0), which permits unrestricted use, distribution, and reproduction in any medium, provided the original author and source are credited. See <http://creativecommons.org/licenses/by/4.0/>.

Designs for Learning is a peer-reviewed open access journal published by Stockholm University Press.

