

**DFL**

# Editorial for the Special Collection: Remediation of Learning

COLLECTION:  
REMEDICATION OF  
LEARNING

**EDITORIAL**

**ANNA ÅKERFELDT** 

**EVA INSULANDER** 

**OLA KNUTSSON** 

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



**STOCKHOLM**  
UNIVERSITY PRESS

## ABSTRACT

This special collection contains articles from participants in the *7th International Designs for Learning Conference – Remediation of Learning*. The focus of the conference and the special collection is on current changes in the designs of information and knowledge representations and their consequences on how we understand and evaluate learning and communication.

The conference was held in May 2021 and due to the pandemic it was run digitally through Zoom. A total of 43 abstracts were submitted, and all delegates were invited to submit a full paper to the *Designs for Learning Journal*. Five articles were finally included in the special collection and are presented below, along with an acknowledgement of the abstracts presented during the conference.

## CORRESPONDING AUTHOR:

**Anna Åkerfeldt**

Department of Teaching and Learning, Stockholm university, SE

[anna.akerfeldt@su.se](mailto:anna.akerfeldt@su.se)

## KEYWORDS:

design; education; learning; remediation; designs for learning

## TO CITE THIS ARTICLE:

Åkerfeldt, A., Insulander, E., & Knutsson, O. (2023). Editorial for the Special Collection: Remediation of Learning. *Designs for Learning*, 15(1), 13–16. DOI: <https://doi.org/10.16993/dfl.221>

## INTRODUCTION

The theme for the conference was taken from the well-known work of Bolter and Grusin *Remediation – understanding new media* (2000). The concept of remediation involves repurposing, taking property from one medium to reuse it in another. It is concerned with changes in medium and sites of display, where materials published in one space are being transferred and transformed when published elsewhere and through other media. In their own words, remediation is ‘the formal logic by which new media refashion prior media forms’ (p. 273). During the conference, the concept was addressed broadly, enquiring about its usefulness for education and learning. The conference had an open-minded approach to what remediation could entail in the new era of learning, teaching and assessment both in formal and informal learning spaces. The 43 abstracts accepted to the conference investigated remediation of assessment, the use of digital games as well as student’s perspective on multimodal aspects of learning.

In his talk, *Learning in the Digital Plenitude: What has changed?* Professor Jay Bolter addressed how the computer and associated multimodal technologies have been integrated into the formal educational process. He discussed whether digital technologies are leading to significant changes in how we communicate and learn and if the textual paradigm in learning and education is now being superseded. Professor Sanna Järvelä talked about how advanced technologies and multimodal data can be used to understand collaborative learning and implications for practical learning designs. Järvelä presented methodological developments using technological tools and multimodal methods to understand the learning process. She and her research team have been working with multimodal and multichannel data for collecting and understanding the complex interactions of cognition, motivation and emotion in regulation of learning. Professor Theo van Leeuwen and Professor Staffan Selander discussed different aspects of multimodal literacy and future education, using multimodal social semiotics and design-oriented thinking. Social semiotic approaches to multimodality focus on researching resources for meaning-making and their social histories, as well as the ways these resources are used in specific historical, cultural and institutional contexts. Design-oriented thinking relates to (multimodal and multi-media) in terms of knowledge representations, new ways of recognizing “signs of learning”, and in terms of designs “in” and “for” learning.

## ARTICLES FEATURED IN THE SPECIAL COLLECTION

Five articles are featured in the special collection, which relates to the concept of remediation in different ways. The article by Örnekoğlu-Selçuk et al. (2022) is about teaching Design thinking using game modding. Design thinking requires hands-on activities to get into the designer’s mindset. Game modding is about modifying existing games, and the approach taken here could be viewed as a remediation of current design teaching practices in a new arena. The study entails 240 students and nine teachers in higher education in both Belgium and Greece. The findings show that game modding supports the cultivation of the design thinking mindset by including student activities such as critical thinking and co-creation.

Svärdemo Åberg (2022) has investigated students’ argumentation in essays within upper secondary schools, especially how the arguments are designed using both written text and visual resources. Writing these essays is part of the preparation for higher education. The analysis of the essays shows that the remediation of arguments in visual forms is there to make the written text more salient. In addition, the analysis also shows an overrepresentation of declarative knowledge and that it is hard for the students to include all requirements in an essay.

Petersen (2023) relates to remediation by using the concept of genres in the domain of apps for children in preschool. Identifying different genres for apps could support teachers in choosing between apps suitable for children, highlighting both possibilities and restraints of apps belonging to a specific genre. Twenty apps have been analysed using a social semiotic framework identifying ten app genres, including three multimodal but monolingual genres and seven multilingual app genres.

Backman, Gardelli and Parnes (2022) present a methodology for designing and researching a digital pedagogical application aimed at supporting persons with aphasia to participate in and learn through deep and complex dialogues about big issues, called *philosophical dialogues*. A computer game-based application for iPads has been developed and researched through Living Lab inspired workshops in order to promote the target group’s communicative participation during group argumentation. The digital application, as a change – or remediation – in medium, shows potential for supported interventions on communicative participation during group argumentation for persons with aphasia.

Finally, in the article by Hautopp (2022), the focus is on graphic facilitation as a new site of display that is gaining

popularity in organizational contexts and is slowly emerging in educational contexts. Graphic facilitation revolves around using multimodal representations in order to drive idea generation, learning processes and collaboration among groups. Hautopp (2022) studies the didactic role of professional facilitators in graphic facilitation courses. The study demonstrates how humour and visual metaphors became multimodal 'hooks' of social memories, which support a playful and safe learning environment. The findings show how the teachers had a crucial role in initiating, acknowledging and supporting the use of humour in these settings.

## **CONTRIBUTION FROM THE CONFERENCE – FROM EDUCATIONAL GAME STUDIES TO STUDY OF CO-DESIGN AND ASSESSMENT**

In total, 43 papers were presented during the conference. The following section will acknowledge the abstracts submitted to the conference. A wide spread of studies was present. The themes represented were games, multimodal and social semiotic studies, assessment, student perspective, focus on COVID-19, teachers' technology use, assessment, and design with various focuses (Designs for Learning, 2021).

Games have been used for learning for centuries, and by using technologies, the interest in designing and using games in education has increased. The game themed abstracts describe how games could create interest in STEM subjects (Parnes & Hedenström), how collaborative design could be used to design games (Mathe et al.) and how children learn in out-of-school activities such as in digital gaming communities (Wernholm).

Multimodal and social semiotics was a broad theme featuring concepts such as transduction (Söderling), affordance (Lindstrand; Airey), and semiotic resources (Samuelsson). Studies within this theme also focused on specific subjects, such as science (Danielsson; Volkwyn & Airey; Kjällander & Caiman; Airey & Volkwyn), sloyd (Gyllerfelt), English (Orevik), STEAM education (Vuopala et al.). Some studies focused on specific modes/semiotic resources, such as verbal-visual-gestural intersemiosis in TED talks (Fei and Lim) and hair and how it can be used for social exclusion and motherhood in picture books (Van Meerbergen). Further, Mohammed and Petersen investigated social media as a semi-formal learning space.

A few papers took a student's perspective and focused on how to design for teaching and learning. Lim presented a paper focusing on students' expressions of their experiences and expectations of multiliteracies learning, Milyakinas study concerned the design of a course focusing on teaching core texts and skills.

Following the designing of teaching and learning activities theme, Hedman et al. presented their work on how students can act as detectives while reading stories. Ryan took on a design thinking perspective and explored pedagogic practice in design; specifically the teaching of problem reframing in Interaction Design.

The Covid-19 spread was represented by four papers and was a highly current topic in early 2021. Heikkilä and Insulander studied educational spaces in different learning contexts, and some abstracts highlighted how upper secondary schools tackle the situation (Bergdahl), how online support can be designed (Stymne) and what Covid-19 can teach us about climate change which was designed as a learning experiment (Korntved Mortensen).

Aspects of assessment connected to students' digital multimodal representations (Fink Lorentzen & Dalvad Berthelsen), the role of digital tools in the assessment of multimodal texts, Gilje et al.) how to assess programming skills (Manilla et al.), and digital peer-feedback (Forsling & Hrstinski) was also discussed and represented.

Teachers have an essential role in designing teaching and learning. Schnaider and Gu investigated teachers' use of technology, how they use hardware and applications and how these are framed and configured in learning activities. Using patterns to design learning was also highlighted, and the study concluded that teachers' use of a learning design and design work might contribute to developing sustainable design support for teachers and their use of technology in teaching (Rolf, et al.). How to design for programming in primary education (Heintz et al.) and how programming activities can be designed from a gender perspective were also represented (Åkerfeldt et al.). Dahl & Eilard have studied how critical analyses can be integrated into teacher programs through discourse analysis in educational contexts. Vigmo & Bäcke discuss the process of intercultural, interdisciplinary and interpersonal professional/academic learning that took place in developing an international master's programme in collaboration between different universities.

Professional development was highlighted through Bäckelins' paper, in a method called case-based reasoning for self-remediation and in Schuler's abstract, focusing on the Swedish armed forces. Looking ahead, Lindberg and Ceratto-Pargman presented a study about the speculative futures of teachers and students.

## **CONCLUDING REMARKS AND NEXT STEP**

Remediation has been interpreted in various ways by the participants of the conference. Technologies and their use in teaching and learning are highly represented in the abstracts. Bolter asks whether digital technologies are leading to significant changes in how we communicate and learn and if the textual paradigm in learning and


education is now being superseded. The answer to the question might lay in the abstracts represented; from that perspective, we lean toward saying yes. However, the question needs further investigation, focusing on how teaching and learning are designed and how students' learning is assessed.


Therefore the next conference will have an overarching theme addressing *design* rather than technology per se. Design could be a way to create innovation in teaching, learning and new forms of assessment. The concept of design has been used in various ways in the articles featured in the special collection, both as a mindset to approach education and designing for activities of artifacts. Using design as an overarching theme for the conference, we aim to include and open up for participating international researchers from different disciplines and topics ranging from AI to semiotic resources used for learning.

## COMPETING INTERESTS

The authors have no competing interests to declare.

## AUTHOR AFFILIATIONS

**Anna Åkerfeldt**  [orcid.org/0000-0002-5101-7369](https://orcid.org/0000-0002-5101-7369)  
Department of Teaching and Learning, Stockholm university, SE

**Eva Insulander**  [orcid.org/0000-0002-4091-0856](https://orcid.org/0000-0002-4091-0856)  
Department of Education, Stockholm university, SE

**Ola Knutsson**  [orcid.org/0000-0003-1760-9130](https://orcid.org/0000-0003-1760-9130)

Department of Computer and Systems Sciences, Stockholm university, SE

## REFERENCES

- Backman, Y., Gardelli, V., & Parnes, P.** (2022). Problems and Solutions in Researching Computer Game Assisted Dialogues for Persons with Aphasia. *Designs for Learning*, 14(1). DOI: <https://doi.org/10.16993/dfl.185>
- Bolter, J. D., & Grusin, R.** (2000). Remediation: Understanding New Media. Cambridge, MA: MIT Press.
- Designs for Learning.** (2021). Abstracts. 7th International Designs for Learning conference Remediation of Learning. <https://drive.google.com/file/d/1xmLWWg1bsljSkwWA00lcK67k6DRFoWK8/view?usp=sharing>
- Hautopp, H.** (2022). The Lazy Netflix B: An Ethnographic Study on the Use of Humour and Visual Metaphors in Teaching Graphic Facilitation. *Designs for Learning*, 14(1), 72–84. DOI: <https://doi.org/10.16993/dfl.184>
- Örnekoğlu-Selçuk, M., Emmanouil, M., Grizioti, M., & Van Langenhove, L.** (2022). Game Modding for Learning Design Thinking on an E-Learning Platform. *Designs for Learning*, 14(1), 99–111. DOI: <https://doi.org/10.16993/dfl.181>
- Petersen, P.** (2023). App-Genres for Children's Agency – Affordances in Applications Used in Preschool. *Designs for Learning*, 14(1).
- Svårdemo Åberg, E.** (2022). Upper Secondary School Students' Design of Arguments in Essays. *Designs for Learning*, 14(1), 85–98. DOI: <https://doi.org/10.16993/dfl.174>

## TO CITE THIS ARTICLE:

Åkerfeldt, A., Insulander, E., & Knutsson, O. (2023). Editorial for the Special Collection: Remediation of Learning. *Designs for Learning*, 15(1), 13–16. DOI: <https://doi.org/10.16993/dfl.221>

**Submitted:** 16 February 2023    **Accepted:** 17 February 2023    **Published:** 27 March 2023

## COPYRIGHT:

© 2023 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.

