Course designs in digital learning platforms in Primary Schools across countries

Theme:

Digital learning platforms

Type:

Peer-moderated symposium: The 2-3 groups involved conduct and make peer-to-peer-response among themselves during the session – and include the audience in the seance along the way.

Description/framing:

Brazil and Denmark are two countries that have implemented digital learning platforms in the Primary School. These countries have relevant differences in many dimensions, including diverse educational systems and the scholar cultures. Besides that, studies in both countries can contribute to understanding many aspects of digital learning platform as a part of a global process that uses disruptive technologies for teaching and learning (Andreasen & Christiansen, 2017). In particular, the symposium deals with the research question: *What characterizes course designs made in and distributed through digital platforms?*

From Brazil, Alysson Ramos Artuso (Federal Institute of Paraná – IFPR) studies the discourses about the digital learning materials and the features available for teachers to build courses, as well as the platform affordance and the potentialities of the web. He describes a typical case of a Brazilian digital learning platform, a textbook-oriented platform with many features for school leadership and not so many for teachers.

Stefan Ting Graf, Stig Toke Gissel, Marie Falkesgaard Slot, and Jens Jørgen Hansen form the Danish group, from the UCL University College, University of Southern Denmark (SDU) and Læremiddel.dk. They investigate how learning platforms can be conceptualized as a category in pedagogical theory and what characterizes teachers' course design in a Danish digital learning platform. In particular, the group contributes to developing an understanding of learning platforms as a framework factor for teaching, as a didactic tool for planning and as a place for learning. The discussions include the platform affordance and have potential implications for platform designers, local school authorities, and teachers that use such course builders for teaching and the students' learning on a daily basis.

Paper 1 Abstract: Digital learning platform in Brazil – The examples of Positivo On

Alysson Ramos Artuso

In contemporary society, digital technologies, especially the internet and mobile devices, break through the restrictions on time and space and becomes a ubiquitous learning tool. Designing teaching environments for digital learning and flexibly applying technology tools seem to be a tendency around the world (Gros & García-Peñalvo, 2016).

Brazil is also part of the tendency and some private and public initiatives are growing. One of this initiative is the platform Positivo On, created by a large private Brazilian publishing company.

The core of the theoretical foundation to the following analysis is the concept of affordance (Gibson, 2015) and the discussion about the quality of learning materials and the types of them – didactic, semantic and functional learning materials (Gissel & Hansen, 2017). Methodologically, the research is a study case to narrow down a very broad field and analyze indepth the digital learning platform. Positivo On can be understood as a paradigmatic case according to Flyvbjerg (2006) definition.

After describing the platform based on the concept of affordance and in terms of interactions possibilities, types of learning materials and web elements, the conclusion is the platform strongly shapes the courses with an affordance that restrains the teacher's autonomy and interaction, with the most part of the materials provided by textbooks published by Positivo.

Keywords: Digital teaching platforms. Affordance. Primary school.

References

Flyvbjerg, B. (2006), Five Misunderstandings About Case-Study Research, Qualitative Inquiry, 12 (2), 219-245. doi: 10.1177/1077800405284363

Gibson, J. J. (2015). The ecological approach to visual perception. New York: Routledge.

Gros, B., & García-Peñalvo, F. J. (2016). Future trends in the design strategies and technological affordances of e-learning. In M. Spector, B. B. Lockee, & M. D. Childress (Eds.), Learning, Design, and Technology. An International Compendium of Theory, Research, Practice, and Policy (pp. 1-23). Switzerland: Springer International Publishing. doi: 10.1007/978-3-319-17727-4_67-1.

Hansen, T. I. & Gissel, S. T. (2017). Quality of learning materials. IARTEM e-Journal, 9 (1), 122-141.

Paper 2 Abstract: Shared course designs in digital learning platforms: affordance and patterns of design

Stig Toke Gissel, Stefan Ting Graf, & Marie Falkesgaard Slot, UCL University College

With the nationwide implementation of learning platforms (LMS) in the Danish public school, teachers' course designs have become shared and visible overnight. The platform designs offer similar yet different affordances vis-a-vis both course design and sharing functions that invite teachers to view, share, re-use and remix course designs and eventually collaborate on them. The sharing can be done individually, within the particular school, school district or nationwide – depending on both the platform and teachers' preferences. Hence, the digital platforms give us a unique opportunity to study teachers' course designs and use of learning resources. Depending on the policy of the local school authority teachers are 'encouraged' to design and share courses in

the platform and thus to explicate learning goals, activity sequences, learning resources, and assessments of student work (Binkley et al. 2012).

We present the results of a systematic study of how teachers design courses in a particular digital learning platform, *Meebook*. The study is based on the collection and double coding of the 102 most downloaded course designs in *Meebook*. The descriptive data is analysed in the light of Meebook's affordances, previous research and didactical theory. Our analysis focuses on the three main intentions of the introduction of learning platforms for K9-schools. This concerns firstly the use of learning objectives and their assessment, secondly the use of the platform in relation to the intention of sharing teacher-created course designs and thirdly the question of how teachers deal with the integration of multimodal learning materials in the course design. On one hand, the course builder in Meebook seems to affect teachers' course designs strongly, and on the other hand, the course builder does not facilitate didactical reasoning and coherence. The results of the study have potential implications for platform designers, local school authorities and headmasters who deal with the implementation of platforms as well as teachers that daily use such course builders for teaching and the students' learning.

In our analysis, we draw on theory of teaching (Graf, 2017), theory of learning resources (Hansen & Gissel, 2017), the concept of affordance (Gibson, 2015/1986) and previous empirical studies on teaching, task design, and the use of educational resources (Hansen & Bundsgaard, 2013; Bremholm, Hansen, & Slot, 2017).

Keywords: Digital learning platforms; Affordance; learning materials; .

References

Binkley, M., Erstad, O., Herman, J., Raizen, S., Ripley, M., Miller-Ricci, M., & Rumble, M. (2012). Defining twenty-first century skills. In P. Griffith, B. McGaw, & E. Care (Eds.), Assessment and teaching of 21st century skills (pp. 17-66). Netherlands: Springer.

Bremholm, J., Hansen, R., & Slot, M. F. (2018). Elevproduktion og skolens opgavevirkelighed. Skoleudvikling med IT (pp. 77-105). Aarhus: Aarhus Universitetsforlag.

Gibson, J. J. (2015/1986). *The ecological approach to visual perception*. New York: Psychology Press. Classic edition.

Graf, S. T. (2017). Dannende undervisning. Studier i læreruddannelse og profession, 2(1), 6-29.

Graf, S. T., Gissel, S. T., & Slot, M. F. (2018). Course designs in Meebook's course builder - analysis of 102 course designs. Læring og Medier(18).

Hansen, T.I. & Bundsgaard, J. (2013). Kvaliteter ved digitale læremidler og ved pædagogiske praksisser med digitale læremidler. Ministeriet for Børn og Undervisning. Findes her: <u>http://pure.au.dk/portal/files/55476642/Hansen Bundsgaard 2013. Effekter af digitale I remid</u> <u>ler. Rapport.ashx</u> Hansen, T. I., & Gissel, S. T. (2017). Quality of learning materials. *IARTEM e-journal*, 9, 122-141. Slot, M. F., Hansen, R. & Bremholm, J. (2016). Elevopgaver og elevproduktion i det 21. århundrede: Kvantitativ analyse af elevproduktion i matematik, dansk og naturfag (Baseline). Rapport, AUUC.demonstrationsskoler. Odense: Læremiddel.dk.

Paper 3 Abstract: Teachers interpretations of Danish as a school subject on learning platforms Jens Jørgen Hansen, University of Southern Denmark & Stig Toke Gissel, UCL University College

Teachers of Danish as a subject have the permanent task of interpreting and translating what is important content to teach students. This interpretation activity is visible when teachers plan course designs understood as given form to learning opportunities (Dohn & Hansen, 2018). Learning platforms set a new context for Danish teachers' planning of course design and establishment of learning opportunities in teaching Danish as a subject. This paper is based on a study by Hansen & Gissel where Danish L1 teachers' uses the learning management system Meebook in relation to design courses for Danish L1 teaching (Hansen & Gissel, 2019). The research question is to investigate which patterns of interpretation of Danish as a subject that emerges through teachers planning. Furthermore, the aim is to discuss whether learning platforms has the potential to develop new course designs and innovative teaching.

The analyses of the different course design are based on the theory of Danish as a subject that aims at developing students text competences. Hansen (2012) defines four discourses of text competence in Danish as a subject: 1) *hermeneutic text competence* where students must learn to interpret texts and develop their personal and cultural identity, 2) *communicative competences*, where students must learn to communicate through and about texts, 3) *creative text competence* where students must learn to produce texts and 4) *basic text competences* where must develop basic text understanding as well as basic skills in reading, writing, listening and speaking. A discourse can be defined as a way of thinking, acting and valuating inside of a particular group (Gee, 1990). Analysing course designs as different discourses provides a basis for understanding teachers' interpretation of Danish as a subject in the new context that a learning platform constitutes.

Empirically the study is based on analyses of 37 course design and shows that half of them focus purely on basic text competences and that the rest contains course designs as a combination of basic text competences and one of the other discourses (except 2 course designs). This shows that teachers planning on learning platforms mainly focus on basic text competences and Danish as a subject becomes something you train. The question is whether learning platforms mainly are supporting knowledge forms that can be trained? Or whether basis text competences have a dominant role in relation to the other hermeneutic-, communicative- or creative text competences?

Keywords: Digital learning platforms; Danish as a subject; Course design; Text competences

Referencer

Dohn, N. B., & Hansen, J. J. (2018). Design in educational research - clarifying conceptions and presuppositions. In N. B. Dohn (Ed.), Designing for learning in a networked world. Abingdon: Routledge.

Gee, J. P. (1990). Social Linguistics and Literacies: Ideology in Discourses: Routledge.

Hansen, J. J. (2012). Dansk som undervisningsfag: perspektiver på didaktik og design. Frederiksberg: Dansklærerforeningen.

Hansen, J.J. & Gissel, S (2019). Danskfaget i spil på læringsplatforme. Fagdidaktisk analyse af danskfaglige undervisningsforløb. Learning Tech (I.P.)