SYMPHONY OVERVIEW:
Reading is integral to children’s active meaning-making on and with screens. With the advent of new technologies, children’s reading has diversified and become more multi-faceted. Children’s engagement with screens may involve the co-construction of meaning between children and adults and dynamic exchanges among children. Features such as interactivity, materiality and personalization of digital books make them a unique context for studying and advancing reading theory and practices in formal and informal learning environments. This symposium brings together researchers focused on children’s digital books read in schools and homes. Contemporary theories of children’s technology use as well as well-established theories of reading for enjoyment are employed to explore a series of methodological and empirical questions. Paper1 explores a collaborative model of designing and implementing digital books in the kindergarten. Paper2 presents findings from an empirical analysis that explored the role of children’s background knowledge and understanding on their interaction with digital books. Paper3 discusses the VEBB project and a research-based online tool for picture book apps for dialogue-based reading. Paper4 synthesizes findings from UK projects focused on children’s digital books with theoretical and methodological recommendations for international research.

The discussant, Prof Natalia Kucirkova, will provide comments during the symposium. At the end of the presentations, she will summarize key information of the session, posing important questions for future research. It will be suggested that researchers need to look for rich theorized ways of accounting for the diversity of children’s reading on screen and continue exploring its multifaceted nature. Collaborative work with practitioners should guide future design of effective literacy resources.

KEYWORDS: Multimodal Digital Stories, Digital Design Process, Early Childhood Education, Teachers, Young Children, Creative use of digital technology

1, TITLE: Designing multimodal digital stories in kindergarten: What happens when teachers involve the children in the process?

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Abstract

RESEARCH TOPIC: The use of digital technology is highlighted in the Norwegian Framework Plan for Kindergartens, where digital practices are described as working methods. The focus in this paper is to explore how teachers involve kindergarten children (aged 4-6 years) in creative use of digital technology, with a special focus on the teachers’ verbal and non-verbal actions during the process. The research question is: “What happens when teachers involve a group of kindergarten children in the process of designing multimodal digital stories?”

THEORETICAL FRAMEWORK: Literature reviews have revealed some previous research where teachers and young children designed multimodal digital stories together (Fleer, 2014, 2017; Hesterman, 2011; Klerfelt, 2004; Öman & Sofkova Hashemi, 2015; Skantz Åberg, 2017; Skantz Åberg et al, 2015). However, most of these studies focus on multimodal digital
stories made individually or in pairs, not in groups. In order to explore how teachers involve children and understand their verbal and non-verbal actions, this study draws on guided interaction (Plowman & Stephen, 2007, 2008), sustained shared thinking (Siraj-Blatchford & Sylva, 2004), and spacious and narrow interactional patterns (Bae, 2012) as guiding theoretical framework.

METHODOLOGY: The research’s methodology is qualitative, with a two-case study and narrative research approach, focusing on contemporary events. In each case study, a teacher and a group of six children design a multimodal digital story, inspired by dialogue-based reading of a picture book-app. The data consist of field-observations of the design process, from the first inspiration to the finished product. Trust, loyalty and confidentiality have been essential in the interaction between the researcher and participants and have been taken into account and reflected upon through the entire process. What happens in the teacher and child interactions, verbally and non-verbally, during the digital design processes, is the focus of the analysis.

FINDINGS: Preliminary findings indicate that when creating stories and props, the teachers mainly involve the children by inviting them into a dialogue about the process and supporting them in the activity. When animating and talking about technology, the teachers use a wider variety of methods to involve the children, e.g. explaining, instructing, inviting, motivating and supporting.

RELEVANCE FOR THE FIELD: The research findings will be a contribution to knowledge about kindergarten teachers’ creative use of digital technology with young children.

References


Skantz Åberg, E. (2017). ‘Horrible or happy – we’ll have a little grey now’: aesthetic judgements in children’s narration with an interactive whiteboard. *International
2) TITLE: Kindergarten teachers’ promotion of children’s pre-understanding in reading with apps versus books

AUTHORS: Trude Hoel, Elisabeth Brekke Stangeland & Katrin Schulz-Heidorf

Abstract:

THEORETICAL FRAMEWORK: Kindergartens facilitate language learning by providing challenging contents that require the use of language to be explored and shared (Grøver 2018), and picture books have proved to provide a rich basis for dialogues where children can use their own experiences and skills and construct new knowledge (Solstad 2016).

Both before and during dialogue-based shared reading in kindergartens, teachers prepare to facilitate texts and medium in ways to promote children's participation. The children’s background knowledge and experiences - their pre-understanding (Hoel, Oxborough and Wagner 2011) – plays an important role in the reader’s comprehension. The pre-understanding are the children’s beforehand expectations for the text, both related to the story and the medium.

The video data in VEBB are coded for time spent on establishing a common focus around the reading situation. We ask the question: What kind of utterances about the medium and about the story in the pre-reading phase do the different conditions (picture book and picture book-app) generate?

METHODOLOGY: The database consists of 48 coded videos on reading sessions in twelve groups in six Norwegian kindergartens. Four different texts were used, all of which were presented both in a digital app as well as in a print book medium: “Hvordan gikk det?”, “Jakob & Neikob”, “En fisk til Luna” and “Frøet”. A rotated study design was implemented where two out of the four texts were read on both mediums in all twelve groups, alternating both the combination of texts and the order of the book or the app being read first. The average total duration of the taped video sessions is 23.5 minutes, with the shortest video being 5.3 minutes and the longest being 55.9 minutes long (SD = 9.708). The time spent on pre-understanding lasted 1.3 minutes on average in both app- and book-based reading sessions (SD = 1.482). The quantitative data material, derived from the video codings, will be analysed in SPSS, using explorative statistical approaches.

EXPECTED FINDINGS: It is expected that pre-understanding occurs frequently in both picture book and picture book-app readings, but we predict that the medium has an impact on teacher behaviour in regard of facilitating children’s pre-understanding. We hypothesise that there will be differences in the two conditions, both related to time spent on pre-understanding, and to content of the utterances. More specifically, we hypothesise that the pre-understanding sequence in app-readings will be shorter and more dominated by utterances related to the medium (relative to utterances on the narrative), compared to print-book
reading. In addition to more story-related utterances during print-book reading, we also expect more teacher utterances promoting pre-understanding.

RELEVANCE FOR THE FIELD: The research presented will shed light on possible changes in children’s participation in dialogue that might come with changes of the reading medium as well as teacher’s preparedness to promote pre-understanding as a key aspect of reading comprehension in digital reading settings. From the findings, implications both for teacher training as well as for the production of digital reading materials for children will be derived.

References


3) TITLE: Shared reading with books vs apps in kindergarten: the role of medium for verbal engagement

AUTHORS: Katrin Schulz-Heidorf, Margrethe Jernes & Anne Mangen:

Abstract:

RESEARCH TOPIC: shared, dialogue-based reading in kindergarten: the role of the medium for children’s verbal engagement

Tablets such as the iPad have become particularly popular to use with young children. Tablets are considered more user friendly and requiring less advanced fine-motor skills and hand-eye coordination than conventional digital technologies such as laptops and desktops (Burnett & Merchant, 2017; Kucirkova & Falloon, 2017; Merchant, 2015, 2017). The popularity of tablet technologies has led to a surge of picture book apps for young children (Bus et al., in press). Picture book apps vary considerably with respect to technological as well as modal affordances: some add animations and soundtrack to its print counterpart and keep the story intact, whereas others depart from the narrative in the print book to create a more game-like experience (Bus, Takacs, & Kegel, 2015). Hence, intriguing research questions pertain to the role of such apps as mediators in reading activities in kindergarten.

THEORETICAL FRAMEWORKS: Informed by recent insights – comprehensively accounted for in various facets of the embodied cognition paradigm (e.g., Newen, De Bruin, & Gallagher, 2018; Shapiro, 2010; Wilson, 2002) – in the role of the body in cognitive processes, VEBB explores the role of medium materiality and how children’s and teachers’ haptic exploration of technological interfaces interacts with dialogue during reading. Theories of embodied cognition are supplemented by James J. Gibson’s theory of affordances (Gibson, 1977, 1979); sociocultural approaches (e.g., Vygotsky, 1978); and theories on shared dialogue-based reading (e.g., Burger, 2015)

METHODOLOGY/RESEARCH DESIGN: multi-method, combining data from video observation with surveys and thick descriptions of the narrative, the multimodal resources, and the aesthetic qualities, of the stories read in print book and as an app on an iPad.
EXPECTED FINDINGS/CONCLUSIONS: Based on analyses of the video data in combination with an exploration of the thick descriptions of the selected titles (in book and on an iPad), we anticipate that certain interactive features (e.g., ongoing soundtrack; an abundance of hot-spots with little relevance to the narrative proper) may present a challenge for efforts to develop and sustain rich, extended discourses. On the other hand, we also anticipate that well-designed picture book apps (with fewer hotspots, and better integrated interactivity), in combination with well-prepared reading sessions by the teacher, may harbor the potential for differently enriched dialogues, in which children may bring in their own experiences due to, e.g., audiovisual affordances or other interactive features. The interactions between haptic (touching and clicking; turning the pages etc.) and verbal engagement may be particularly interesting.

RELEVANCE FOR THE FIELD: The objective of VEBB is to develop a research-based online tool for evaluating the appropriateness of picture book apps for shared, dialogue-based reading. Motivated by the increased use of digital technologies in ECEC settings and the lack of research-based guidance for appropriate pedagogical implementation, VEBB enables teachers and caregivers to decide whether features of a given picture book app can be expected to support language stimulating activities, or whether they are more likely to impede such activities.

References


4) TITLE: Insights from research on children’s digital books in the UK

AUTHOR: Natalia Kucirkova, University of Stavanger

Abstract

RESEARCH TOPIC: Drawing on a series of studies concerned with children’s digital books in the UK (Kucirkova et al., 2016, 2017, 2018), this presentation outlines the tensions between different methodological and theoretical perspectives on the potential of digital medium for children’s reading and highlights their complementary role in informing the design and practice of digital books.

THEORETICAL FRAMEWORK: Narrative is key for studying and understanding the reading process in various contexts and with various media. Britton (1982) suggested that reading is fostered by a legacy of narrative satisfactions. The experience of narrative helps children to understand ‘the symbolic potential of language: its power to create possible and imaginary worlds through words’ (Wells, 1986, p. 156). Reading narrative thus enhances children’s imagination and fosters skills that go beyond medium-bound capabilities.

METHODOLOGY: Using the example of the story-making app Our Story, it is argued that multimedia and display recorder apps can generate highly authentic data, capable of providing unique insights into the activities and experiences of young children that more conventional data methods cannot achieve. Moreover, the use a story-making app in the school context addresses some empirical and ethical challenges concerning the positioning of the child and researcher in observational research, notably in relation to observer effects and researcher subjectivity.

RELEVANCE FOR THE FIELD: It is recommended that future interdisciplinary research in the area considers the ways in which adults’ ethnotheories and epistemologies mediate children’s access and experience of reading on screen, a greater practical focus on design features of digital books and their relationship to the quality of current reading resources. The discussion focuses on the contribution of this literature review for future interdisciplinary work in studying children’s reading on screen.

References


