

Exploring digital media-play as a formative and cultivative practice in a Danish kindergarten setting

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We decided to treat the iPad as any other toy, like LEGO, toy cars, dolls etc., so we placed the iPad on a shelf, so that the children can reach for it themselves, whenever they feel for it. A contribution by Heidi Stensman Pugh, Peter Hornbæk Frostholm and Majbrit Dubgaard Sørensen ...

I. Introduction

This paper explores the everyday pedagogical practices on digitalised media-play in a Danish kindergarten setting. Through in-depth analysis of the practices of a kindergarten situated in the small town of Bording, Denmark, we explore what both technical and formative, cultivative and cultural learning aspects for children aged 3-6 may be extracted from such pedagogical practices. This paper takes its inspiration on the aspects of life formation through the traditional German philosophical idea of *bildung* (self-cultivation) (Ensslin/Goorimoorthee 2018).

The Danish take on childcare and nursery pedagogy for children aged 0-6, is undergoing perceptible changes due to the recent completion (July 2018) of the reform on the enhanced educational curriculum for day-care institutions. The recent reform emphasizes themes like the good life of a child, children's perspectives, learning environments, play, digitalisation and life formation and incites all Danish institutions to form and construct a pedagogical setting around these themes. In connection to the idea of cultivation and life formation, the educational curriculum emphasises that the pedagogical practices concerning the cultivation and life formation of a child should take as its starting point whatever seems meaningful and challenging for the child, whilst also considering how the practices help the child in both grasping, navigating and acting in a global and digitalised world (The Ministry for Children, Education and Equality 2016). In total the word digitalisation is found six times in some form or another, throughout the rather short text of the reform. In the parts concerning children's learning it is emphasised, that children learn through exploring with their body and their senses, by experimenting with all sorts of materials and by making new discoveries themselves. Through this, learning by experimenting with digitalisation and digital media is juxtaposed with learning through nature and natural phenomena and learning about culture and sustainability. In creating a high-quality learning environment in Danish kindergartens and nurseries the reform highlights the presence of digital media, like iPads or programmable robots, as equally important as other structural parameters like the physical surroundings, staffing, the educational levels of the staff and the number of children in each institution. Furthermore, the reform underlines the importance of a didactical planned pedagogy that frames diversity and allows for a learning environment that develops the child's ability in mastering and expressing oneself through the use of digital media in an independent, authentic and curious way (The Ministry for Children, Education and Equality 2016). Through all this we learn how notions of self-cultivation, formation and cultural learning through media play and experimenting with digital media, be they iPads, coding toys or something else, are set to be an inevitable part of the everyday practice of any day-care institution in Denmark in the near future. Overall, in this paper, we are occupied with the complex processes of how political agendas, pedagogical practice and research inspire and inform each other based on the core structures of Nordic pedagogical thinking and methodology on play, learning and life formation.

II. On playing and life formation

Playing and life formation or cultivation are concepts which are often linked together. In playing the child transcends itself and its abilities and becomes "somebody else", together with others, as the children have the possibility to take on different roles as they play. Playing opens a new and much bigger world for children and through playing children process everyday impressions, get new expressions and through this process, playing constitutes life



formation. Playing is ever changeable and mutable and the nature of the playing is affected by the social actors participating in it. Playing, Lars Geer Hammershøj, Associate Professor, PhD, states, is more important now than ever before, because through our modern way of life, we are constantly adapting to new surroundings and communities. Through formative and cultivating processes playing prepares us for constant adjustments and helps us navigate and manage ourselves through such complex moves (Hammershøj 2012). This, if anything, helps establish an argument for importance of playing in everyday day-care settings.

III. On digital literacy and life formation through play

The current political order of business brings focus not only to digital literacy, focusing more on mastery of digital skills and competences, but also to the more cultivating aspects of playing and experimenting with digital media. For a few years now, Danish experts on children's play have been discussing the true value of playing. Some argue that playing should be considered the means for learning something specific, while other take a more formative approach toward children's play as they argue that playing has an inherent value in itself, and state that children should be allowed to play without any interference or meddling from adults (Ringgaard 2017; Kampmann 2010). Danish pedagogues have for many years been working determinedly on children's play and their play-relations, but with the completion of the current reforms, playing, experimenting and learning through play has gained more political interest than ever before. The current reform prompted an amendment of the Danish law on day-care institutions, emphasising playing as a fundamental element of a child's life:

"Day-care institutions must enhance the well-being, learning, development and formation of a child, through safe and pedagogical learning environments, where playing is fundamental, and based on the perspectives of children." (Retsinformation 2018: §7, our translation).

The amendment causes pedagogues to think and talk about learning as something, that happens all the time, throughout the day, instead of something only happening through strictly defined and planned learning activities. Now all kindergarten- and nursery pedagogues must consider how to create room and possibility for the unfolding of children's play. Because what is the value of playing? And what is the play value of experimenting with digital media in Kindergarten? On the Danish Governments' view on digital literacy, the Danish Ministry of Education furthermore emphasises that:

"Children and young people must build digital skills and life formation so that they are prepared to engage in digital life from an early age. This applies to the following competences; digital citizenship, understanding good online behaviour, healthy online participation and building skills of digital creators." (Undervisningsministeriet 2018).

Through this we learn that political visions, values and agendas both inspire and challenge practitioners to translate and transform this into everyday pedagogical kindergarten practices.

IV. Media-play in a Danish kindergarten

In the following we learn how notions of media-play transform into concrete pedagogical actions and initiatives through thorough examples from the field of practice. In Denmark, the use of iPads as a media-play tool has increased in recent years. In Bording Børneby, a traditional Danish kindergarten for children aged 3-6, pedagogue Majbrit Dubgaard Sørensen has been working pedagogically with iPads since 2014.

V. Narratives from the field of practice

Before 2014 we did not have the didactical knowledge or a pedagogical argument for using the iPad, so we used it the only way we knew how; by handing it to children who needed a break for some reason. At the time, we did not consider which application were on the iPad, we just handed them out, and let the children decide for themselves what to do with it. We downloaded a new game if they knew of one, they wanted to play.

In 2014 the municipality of Ikast-Brande made pedagogues undergo further training by participating in workshops on how to use the iPad as a media-play tool. We learned that the iPad was more than just a device for children to play games on. Through this we found that the iPad is a valuable asset to our pedagogical toolbox - if used with a pedagogical purpose. After attending the workshops discussion began on how to use the iPads in our kindergarten in Bording. Among the initiatives was the appointment of a work group consisting of three pedagogues, that were to be in charge of developing a concrete media-play strategy for Bording Børneby. Overall, we strive to let children experience a good start to their digital life and therefore we made it a priority to talk to the children about healthy online participation and good behaviour around the iPad. As a part of our everyday practice we talk to them about taking pictures of others; when is it okay to take pictures, and when it is not okay? We urge them not to take pictures of people who are e. g. sad or does not want their picture taken. We encourage them to simply ask before taking pictures of others. We argue that by doing this, the children achieve a fundamental understanding of healthy participation and basic digital literacy.

We seek that the content on our iPads directly reflect the pedagogical values of our kindergarten. This means that we now have iPads, which we know only contain apps picked out with a pedagogical purpose in aim. This means that every app added to the iPad is there for a reason and must be advocated by a pedagogue defining what the app does for children's development and why. Our compiled list of apps is made available to the children's parents, so if they want, they can download them at home, making the notions of healthy participation and digital literacy a shared responsibility between institutions and homes.

We decided to treat the iPad as any other toy, like LEGO, toy cars, dolls etc., so we placed the iPad on a shelf, so that the children can reach it themselves, whenever they feel for it. This has made the iPad a toy that some children use every day, while others do not. The pedagogues of course make sure that nobody is on the iPad all day. We do not limit the time that the children spent on playing with the iPad, as long as the children seem immersed in what they are doing. If they are, we leave them to it, if not, we ask the children to pass on the iPad to someone else or simply put it back on the shelf. We found that this approach makes the children more social in their use of the iPad. Four children can easily fit around one iPad, and because there is no set time limit, it is easier for the children to accept that playing with the iPad can be a group activity.

VI. Media-play examples from the field of practice



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In general, media-play in kindergarten aim to educate and prepare children for a society shrouded in all-pervading

digital interactions. What we learn of here, is a Danish Kindergarten that offers child-initiated communities, around media- and iPad-play, with a pedagogical aim of strengthening and enhancing the inclusion of each child through friendship-relations and co-operation. In a broader perspective, media play is not just play with a specific app, but the joint play and activities of children and pedagogues (Thestrup 2015: 51). The following will elaborate on this further.

"The QR-treasure hunt"

As a kindergarten pedagogue, I wanted to make the iPad a tool that the children could use outside as well as inside the kindergarten. Therefore, I developed a treasure hunt around the kindergarten playground with the use of QR-codes. The current purpose was to also show, that the iPad can be a tool for physical activities. I gathered a couple of children and took them to the playground. Here I had them take some pictures of specific areas of the playground which were easy recognizable. Afterwards the children and I used a QR-code generator to make the QR-codes. The codes now correspond to different treasure maps that leads to different places at the playground. There are different ways to use the treasure maps. I prefer that all the children each get a map for themselves, by doing so, the order of the locations that they need to run to are random because the iPad gets passed on in a different order every time. The pedagogical aspect was not only to get the iPad outside on the playground, but also the social skills training in the treasure hunt game. The children need to wait for their turn with the iPad as well as they need to pass the iPad on.

"Bee-Bot"

In Bording Børneby we also have a Bee-Bot, a small coding robot that the children can use for all sorts of media-play. The Bee-Bot is a good way to spark logical thinking. It gives a hand-on experience, that makes it easier for children to understand the aspects of coding, because they actually experience the causal relation pressing different buttons and the Bee-Bot following orders.

When I started using the Bee-Bot, I used it for psychical activities only. I placed different pictures underneath the transparent mat the Bee-Bot comes with. The pictures instruct the children in what they need to do, as the Bee-Bot moves to that field. For example, I made pictures of children crawling, doing jumping jacks, twirling and walking backwards. Besides giving the children experiences with coding this particular activity offers me a knowledge on the motor skill and physical development of each child.

"ICT and social skills-groups"

The focus of this constructed group of children is to make use of digital media as a tool for inclusion.

In this setting we use the term "super user" which refers to one child, that through intense pedagogical effort, develop a special set of skills within a specific digital tool. We assume that by making a child a "super user", we strengthen their social position within the communities and children groups of the kindergarten. For a child to achieve the status of "super user", I set off by working with them alone, making sure that the child has a deep understanding and know their way around the app, before we then invite another child to join us. I have different experiences with this method and sometimes it works out well. When you enhance the skills of one child, the group of children will look at that child for advice. This not only shows the other children that this child can do something special, but we also boost self-confidence of the "super users", because suddenly they have skills that other children seek and benefit from.

In the ICT and skills-group we work with all kind of different issues, all related to supporting the kindergartens work with inclusive pedagogy. One task we address through the use of media-play is in cases of children fighting a lot. We make them team up and work together to enhance the potential of getting new perspectives on each other, which often seem to strengthen and develop their relations toward one another.

Another pedagogical initiative, we work with in this group is supporting the linguistic development of bilingual children, in order to make them more confident using the Danish language around the kindergarten. Through



working together using an app for translation, the bilingual child oftentimes builds up the courage to speak little by little. In the beginning this activity is just between a pedagogue and the child but after a while we invite other children to participate and this activity then becomes more than just a linguistic training session - it now supports the inclusion and might just sport new relationships throughout the everyday life of the kindergarten.

VII. Concluding remarks from the field of practice

As a pedagogue, the introduction to media and media-play has broadened my horizon on working with children. My experiences show that the iPad is more than a "WOW"-effect, magically luring children in. As a practitioner, I say that the digital media cannot stand alone - they need to be viewed as a mere supplement to our already existing pedagogical toolbox. Children still need to play board games, do puzzles, play with dolls and toy cars. However, the digital media has a lot of possibilities in our pedagogical work field, as I have shown above - we just need to see the opportunities.

In Bording Børneby we are eager to experiment and learn about the use the digital media and media-play in the kindergarten. But we have set off and experienced how it actually has made a difference in our practice field. We have seen children become more self-confident by attending the ICT and social skills-group, but also by just getting the opportunity to experiment with making small films or videos, showing them to their parents and friends around kindergarten. We have learned about the social effect, that the iPad can have, when a child has difficulties playing a game on the iPad, a more experienced child often realizes and starts helping the younger child. We have seen children who started in the kindergarten and did not know how to use an iPad, but they have learned, by looking at what the more experienced users were doing and copied of them. Digital media is here and now, and it is the future. As kindergarten pedagogues we are obliged to assist the children in experimenting, learning and coping with digital media through playful and challenging pedagogical activities as they become healthy, capable and literate digital users.

VII. On formation, cultivation and learning through media-play

For many children, young people and adults in western countries today, lots of time and devotion is put into playing with media and digital worlds like the ones found through media-play in kindergartens. The time, thought and energy that people spend in these digital arenas can be viewed as passive and simply unchallenging - mere leisure or even some kind of escape from something, or it can be viewed as learning, developing and sparking social transformation (Gee 2013: 169). Through James Paul Gee, we learn that the theory of learning through, for example video games, compare to the best sorts of science instruction in schools today, with one example being, that both ways of learning stress strategic thinking and problem solving, often collaboratively.

Following notions of digital literacy learning through for example video games should be considered a source of new ideas, sporting solutions to hard problems and developing skill sets for jobs not yet in existence. Through this paper we challenge this view and argue how life formation might as well happen simultaneously with the development of concrete skills by children investing time in media-play by for example practicing and perfecting videos game skills whilst negotiating taking turns playing, game rules etc. with their peers at the same time. Playing with media together as a group develop synchronized intelligences made up by individuals with each single individual representing only a small part of the community's collective knowledge and acquaintance, which we claim spark social transformation, life formation and cultivation - much like the super users and their peers as described above. This makes the group of individuals learn together. Different types of people, different ways of coping with different challenges and diverse skill sets are networked in ways that make everyone participating smarter and make the group itself a form of emergent intelligence (Gee 2013). With that said children are not playing with media to get jobs or plan for future careers. They gather in group to fuel interest, passion, play and learning, and to benefit from a synchronized human intelligence in the interest-driven groups and maybe even to engage in civic engagement or social transformation with other people (Gee 2013: 163, 178). They might just not realise it yet.

IX. Concluding remarks

The introduction of digitalised media-play in kindergartens and similar pedagogical settings, may prove to be quite the challenge for some pedagogues, as the institutions must understand and implement the technological approaches and methods as a part of the everyday life, as well as understand and explore the media-play as a part of a child's life formation, cultivation, cultural learning, socialisation and identity-work. We encourage pedagogues and other practitioners in the field of child pedagogy to learn from the examples given throughout this article, and therefore adopt an open, but at the same time critical reflexive mindset towards how the medialisation of children's play challenge and reconstruct their view and educated take on formation, learning, socialisation etc.

(Christiansen/Hestbech/Jørnø 2015: 7). Danish media researcher, Ph.D., Stine Liv Johansen argue that adults, be they parents, teachers or pedagogues, are doing children a great disservice should they ban or surround media-play by tight restrictions. On the contrary media-pedagogy is about forming a relationship with children, where digital media acts as a natural and suitable add-on to the other formative and cultivative pedagogical practices going on in Danish kindergartens today (Johansen 2014: 6).

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Tags

media-play, kindergarten, media pedagogy, life formation

Impressum und Offenlegung gemäß §25 des Mediengesetzes

Medieninhaber: Republik Österreich, Bundesministerium für Bildung, Wissenschaft und Forschung

Zuständigkeit: Laut Bundesministeriengesetz 1986 in der jeweils geltenden Fassung

Hersteller: Bundesministerium für Bildung, Wissenschaft und Forschung

Verlagsort: Wien

Herstellungsort: Wien

Kontakt: Bundesministerium für Bildung, Wissenschaft und Forschung, Abteilung IT/3, Minoritenplatz 5, 1014 Wien

<http://bmbwf.gv.at>