“Everybody has to get a Chance to Learn”: Democratic Aspects of Digitalisation in Preschool

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Abstract

The aim of this article is to examine the ways in which curriculum goals on digitalisation are viewed in relation to the overarching democratic mission of Swedish preschools. Groups of preschool staff from three preschools located in different areas were interviewed with the focus on how they discuss democracy and the democratic aspects of *digital tools* and children’s *digital competence*, which are concepts used in the curriculum. Collective mind maps – constructed by the participants – were used as focal points in the interviews. The analysis centres on the content of these discussions, but also touches on the ways in which the groups communicated. The findings show that the groups from the three preschools expressed very different views on using digital tools and developing preschoolers’ digital competence, and that these views corresponded with their general views on democracy. The ways in which the groups expressed their views of democracy are also reflected in their discussions with each other. Preschool teachers’ and childcare workers’ own lack of digital competence is mentioned briefly as a reason for not using digital devices by the group using them the least, but this does not seem to be the main reason for their infrequent use of digital media with the children.

Keywords Early childhood education · Preschool · Democracy education · Digital technology

Introduction

Digital competence is considered to be part of the civic competences needed in a democratic society (Council of Europe 2006, 2018), and the overall national digital strategy for Swedish schools starts with the words: “Digital competence is basically a matter of democracy” (Ministry of Education 2017). In addition, an education promoting democratic values is one of the primary goals in preschool education and perhaps the most important preparation it gives for life. In the Swedish preschool curriculum (Swedish National Agency for Education [SNAE] 2018), as well as in the Swedish Education Act (SFS 2010:800), the importance of democracy is already stressed in the first paragraphs. However, the concept of democracy has proven difficult to discuss within preschools, since preschool staff have often found it difficult to put their democratic efforts into words (Swedish Schools Inspectorate 2018). Recently, the SNAE

implemented a new curriculum for Swedish preschools (effective from July 2019). This curriculum holds the same goals regarding democracy, but focuses more strongly on letting children use digital tools and developing their digital competence. These aspects are in line with the above-mentioned frameworks.

It has long been known that teachers have different views on the use of digital tools in preschool (i.e., Ljung-Djårf 2008; Lindahl and Folkesson 2012). Today, most Swedish preschools provide access to computers or tablets for the children (SNAE 2016, 2019). According to the same reports, Internet access is available everywhere. Between the publication of these two reports in 2016 and 2019, Internet access has improved to include most children, and not only the staff. Preschool staff have expressed the wish to have more time to develop their digital competence (SNAE 2016, 2019), and preschool teachers’ different perspectives on the issue are sometimes interpreted as the result of a lack of digital competence, which can be solved through in-service and pre-service training (Dong 2018; Magen-Nagar and Firstater 2019). In spite of the strong emphasis on digital competence as “a matter of democracy” in policy documents, the democratic aspects of digital media in preschool are rarely

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discussed in research or—apparently—in practice. Here we focus on their democratic aspects, since digital tools can be used for many purposes.

Therefore, the aim of this study is to find out how Swedish preschool staff view the digitalisation of preschools in relation to their democratic mission.

The research questions in this specific study are:

- How do preschool staff discuss democracy in preschool?
- How do preschool staff discuss the democratic aspects of digital tools in preschool?

Overview

First, we sketch the background of the democratic mission of Swedish preschools. Next, we provide a brief summary of research on preschool teachers' use of digital tools, and finally we present previous research on democracy and early childhood education or preschools.

The Democratic Mission in Preschools

As presented in the introduction, the promotion of democracy has long been one of the primary goals of education in Sweden. This can be seen in the fact that, even though the curriculum has been revised, preschools have an unchanged mandate when it comes to democracy and democratic education. However, there might be a risk of viewing issues of democracy merely as aspects that should permeate the preschool context:

On the one hand, democracy is everywhere, but at the same time this places democracy at risk of being nowhere, thereby making the work with democracy less visible and more difficult to evaluate. (Ribaeus and Skånfors 2019, p. 244).

So how do preschool teachers discuss and implement their democratic mission in their day-to-day practice? According to Ribaeus (2014), it is important to take into account the complexity of this task. During her study, preschool teachers used a number of different strategies for implementing their democratic mission, with the most important being (1) providing children with opportunities to participate, (2) listening to the children's initiatives, and (3) giving preschool children the tools needed to take initiative and influence their own education. Preschool teachers found it difficult to implement the democratic mission in their daily work even though they saw it as important. The teachers set goals concerning democracy in the work plan, but did not feel that they succeeded in obtaining them. Even so, Ribaeus's analysis shows that teachers were in practice working towards their goals

and carrying out the democratic mission, albeit seemingly subconsciously (Ribaeus 2014).

When the Swedish Schools Inspectorate (2018) inspected preschools to find out how the staff worked with values, they found examples of preschool staff addressing democracy in different ways. There were good examples of the promotion of democracy, but democratic values were not promoted systematically and sometimes without adequate reflection (see Ribaeus 2014). The Schools Inspectorate's report attributed this to a lack of discussion around these issues, since both preschools managers and staff found the discussion of democracy complicated. The Schools Inspectorate drew the conclusion that in order to ensure that preschools systematically address issues of democracy, there has to be an ongoing discussion about what democracy means.

Democracy seems to be a difficult concept for preschool teachers to discuss and put into practice (Tofteland 2018). Concepts used instead of *democracy* include *children's influence* or *participation* and the importance of *listening to children*. What the teacher hears might not be what the child says or communicates in other ways, for example through body language. Therefore interpretation is equally important, especially when working with the youngest children in preschool (Tofteland 2018).

Preschool Teachers' use of Digital Tools

Earlier research points at different reasons—or rationales—for promoting digital competence in preschools. Already in 2008, Ljung-Djærf found three attitudes teachers adopt regarding computers in preschool: *protective*, *supporting*, and *guiding*. She argues that these attitudes afford rather different possibilities for children to learn. Hernwall (2016) claims that preschool teachers struggle to develop a relationship to digital media; technology can be seen as a threat to true human communication or as a super tool for language development. He points at the complexity in their striving for a professional conceptualisation of digital technology, but notes that there are many personal considerations. Nilsen (2018) claims that teachers' attitudes to digital tools in preschool are ambivalent.

It has been found that preschool teachers' attitudes are positive towards digital technology in general and for personal use, but many have concerns about using it with the children. There are for example concerns about technology limiting the children's creativity and causing health issues (Liu et al., 2014; Palaiologou 2016). A majority of the preschool teachers in Palaiologou's study cannot see how digital technology can support a play-based or child-centred pedagogy, and other studies have found that preschool teachers regard digital technology as a school-oriented teaching tool (Marklund and Dunkels 2016), but that it can be used in teaching children social skills like waiting their turn

(Beschoner and Hutchison 2013). Teachers differentiate between using tablets and playing, since it is important that the technology is used for learning (Nilsen 2016).

Home language teachers in Swedish preschools have claimed that tablets offer social inclusion (and equity) through their multimodality. This was valued by teachers working in areas with families with fewer socioeconomic resources. These areas often also have fewer digital resources in preschools, schools, and public libraries. The researchers further identified examples of empowerment through digital technologies. In this respect, teachers who engaged in technology in their daily lives were also found to be the ones using it with children (Moinian et al. 2016).

The role and attitude of the teacher are important when using technology in preschool. Although preschool teachers show a positive attitude, they have been found to lack awareness of their pedagogical role, and cannot always guide children in the use of technology (Dong 2018; Magen-Nagar and Firstater 2019). Dong advocates professional training in the pedagogical use of digital technology. The pedagogical potential of apps depends on the context, which can vary from situation to situation (Nilsen 2016). Children do not always have the same aim as their teachers with using digital tools (Fleer 2017; Nilsen 2016). Nilsen found for example that while teachers had planned an activity with pedagogical content, the children were more focused on the app itself and getting it to work through trial and error, and did not always care about the assignments.

Digital Tools in Relation to Democracy

Empirical studies on the use of digital tools in relation to democracy are rare, even if it is possible to read between the lines in some studies advocating children's right to express themselves (e.g., Moinian et al. 2016). Forsling (2017) is another early childhood education researcher who also advocates children's rights to express themselves, but in the area of special needs and literacy. Other researchers advocate merging democracy and digital media on philosophical grounds (e.g., Mason 2015a, b; Stoddard 2014).

Serriere (2010) presents one of few writings about how technology can contribute to the promotion of everyday democracy in preschool. She argues that an ongoing dialogue is needed to develop children's awareness of democracy. She bases her arguments on Dewey's ideas and claims that this dialogue should be rooted in children's everyday lives. In her study, she uses photographs taken during the day at preschool to facilitate such dialogue. She could see how the photographs could serve as a springboard for the children to reconsider their social lives. She discusses the difference between being active and regarding children's world as important, as opposed to educators waiting for the children to become "development ready" (p. 62). In her

study, she finds that the children can use the photographs to explore social situations.

Theoretical/Conceptual Framework

Our study is based on Biesta's (2007) theoretical understanding of democracy and his view of persons as being and becoming democratic *subjects* with their own agency in contrast to being viewed as *objects*. Biesta discusses three different ways in which a democratic *subject* is constituted based on the ideas of Immanuel Kant, John Dewey and Hannah Arendt. He also wants to...

...advance a different understanding of democratic education, one that is *not* centered around the idea that democratic education is about the 'production' of the democratic person, one which does *not* conceive of the democratic person as an isolated individual with a pre-defined set of knowledge, skills and dispositions, and one in which it is acknowledged that democracy is about plurality and difference, not identity and sameness (Biesta 2007, p. 2).

Criticism of the fact that democratic education is instrumental and the individual is central in Biesta's reasoning. By focusing on aspects of education *for* and *through* democracy, the important dimension of a *here-and-now* perspective is missing. Biesta argues that democratic education means creating space for children and students to become democratic *subjects* with the possibility to act *here-and-now*. In our analysis we consider some common ways of understanding the relation between democracy and education by viewing it as educating *for* or *through* democracy.

Democratic education often focuses on preparing children to become future citizens (for and through), but it is also important that children are able to act as *subjects* by acting and taking initiatives *here and now*, as stated by Biesta (2007). He describes the concept of *for* democracy as different ways to prepare children for participation in what he calls democratic life. Therefore, democratic education can be regarded as having three different missions according to Biesta: teaching children about democracy and connected processes, facilitating children's learning to deliberate and make decisions together, and also enabling them to acquire a positive approach to democracy. Educating *through* democracy also means that education needs take democratic forms. These include both how the curriculum and other policy documents are constructed but also actual structures at schools and how the teachers carry out their everyday work in relation to their pupils.

Educating children *for* democracy is not the only important aspect, as many researchers have shown that children do not only learn *what* we teach them, but also *how* this is

taught. Trying to teach and educate children *through* democracy can also be seen as problematic, because there are some similarities with teaching *for* democracy – both approaches aim at preparing children for their future, and Biesta also sees them as taking instrumentalist views of democratic education. If education is seen as instrumental in bringing about democracy, schools can also be blamed if this fails. This preparation of children to become democratic citizens, which can be seen as the production of democratic citizens according to Biesta (see above), can further be regarded as problematic because such a focus on the individual fails to take into account relational aspects or the children's learning environment. Giving children skills and knowledge does not seem to suffice; more must be done if teachers are to fulfil their democratic missions. Biesta suggests that the idea of democratic education and democracy should be concerned with “plurality and difference, not identity and sameness” (Biesta 2007, p. 2), and that teachers should try to learn from situations where the children can achieve their own agency by, for example, acting and taking initiative. Here we examine the extent to which these different views of democratic education are seen as opportunities in the conversations studied.

Materials and Methods

Following the theoretical framework, our interest is directed towards the dialogues between members of the preschool staff and *how* they discuss the democratic mission in preschool and the democratic aspects of digital tools. Accordingly, we conducted focus group interviews (Wibeck et al. 2007). In all steps, ethical regulations were followed, for example by describing procedures, and also by keeping data safe (Swedish Research Council 2017). Details of the design are described below.

Procedures

In order to understand how staff view the digitalisation of preschool in relation to its democratic mission, we carried out group interviews to capture how democracy and the democratic aspects of digital tools in preschool are discussed at different preschools. In Swedish preschools, two types of professionals work with the children, who are aged between one and six years: preschool teachers and childcare workers. The preschool teachers carry the pedagogical responsibility, while the childcare workers provide general care to the children. These professionals complement each other and have to work together closely. In practice, they have to do the same work with the children, and therefore we interviewed groups of staff and did not differentiate between the two types of professionals. Collective mind maps were

used as focal points in the interviews. The words “Preschool's democratic mission” [Swe. *förskolans demokratiupdrag*] were written in the middle of a big sheet of paper and the interviews were structured around this concept. The aim was to let participants talk more themselves based on the concepts they chose, and on which each participant had written notes. The notes were stuck to the big sheet, and each participant explained their concepts and thereafter the group freely discussed the concepts' relation to each other. Part of the interviews concerned digital tools and digital competence. All the interviews were recorded.

Participants

In all, 24 preschool teachers and childcare workers from three preschools participated in the study in four different groups. They received information in advance via the preschool management. The same information was given orally and in writing just before the interview, when participants could ask questions and sign their consent. Data was collected through focus group interviews with teams of participants (Wibeck et al. 2007). Preschools with different conditions were chosen: one rural preschool and two in different areas of a larger city were selected according to their socioeconomic status. This selection was made because we wanted to meet staff with different working conditions (Mollborn, Lawrence, James-Hawkins and Fomby 2014). Each group consisted of preschool teachers and childcare workers from the same preschool. They were chosen by the management to represent their school, which was the only available option in accordance with practical and ethical considerations, and each group consisted of 4–8 participants (Wibeck et al. 2007). Participants included persons with over 40 years' experience as well as newly-graduated preschool teachers, and the ages represented are estimated to range from 25 to 60+.

Analyses

In this study, data is collected and analysed at the group level. This means that the individual views of the teachers are less visible than their collective observations on democracy and digital media. The recordings were transcribed and transcripts of the recordings and the mind maps constitute the analysed material. The analysis focuses on how the different groups discussed democratic aspects of digital media, and the experiences related in the interviews. Since it had earlier been found that democracy seems to be a difficult topic to discuss in preschools (Swedish Schools Inspectorate 2018), our research questions all start with *how*. It has been important not only to analyse the content, but as many democratic aspects of digital tools and children's digital competence as possible. Therefore, we also listened carefully to the

recordings several times, to see if the participants' views of democracy are somehow reflected in their discussions. We did not visit the spaces where the children were, and the groups did not explain in detail what they looked like or exactly how things were organised. The analysis is mainly a content analysis of the transcriptions, although it is partially informed by conversation analysis of the original recordings. The recorded interviews totalled 6 h 20 min 7 s.

The democratic aspects are analysed and discussed in terms of educating *for* or *through* democracy as well as children's right to participate in and influence their everyday lives and act as *subjects* by taking initiatives *here and now* (Biesta 2007). Comments were coded, and it was obvious from early on that the three preschools represented different views on democracy as well as on digital technology, and how they are used by the children. When listening to the recordings, we found that the ways in which the participants interacted with each other corresponded to the views they had expressed orally. This does not mean that individuals would have expressed themselves in the same way had they been interviewed one by one, but since staff in Swedish preschools work very close together, we found this to be an important part of the analysis.

Results

The results show that the three preschools had different ways of discussing democracy and the democratic aspects of digital tools. The results are therefore presented preschool by preschool. The preschools are here referred to under the aliases Rainbow, Sunflower and Lady Bug preschools, which are all quite common names of Swedish preschools and do not bear any connection to the actual preschools.

Rainbow Preschool

Children are Listened to

The first concepts the group from Rainbow wrote on the mind map about democracy were "listening", "listening to others", and "being listened to". During the whole interview they returned to these notions from different angles. As adults they are responsible and have to listen to the children, but they also work hard on teaching the children to listen to each other. Part of listening to somebody involves "seeing"—or paying attention to—a person. Not all children can talk, and it is important for the staff to interpret what the children want to communicate. They also agreed on the fact that if they as adults create a "kind" environment, the children will notice this and it will be "contagious". This will ensure everybody's happiness and that they all show each other respect.

The interviewer asked them how they relate to the world outside preschool, to topics that children might encounter over the dinner table or through the media such as sustainable development, war and conflicts, refugees, etc. They all agreed that those subjects are too big for small children. The most important things they teach are that the children should learn to listen to each other and wait their turn. As an example of something the children can influence, they mention choosing what to put on their plates for lunch.

There are more Important Things to Learn

The first comment in this group, as a response to the interviewer's question on whether they could see a link between democracy and digital competence, was "I think that is difficult". This remark was typical for the discussion in this group. Quite soon, they started to discuss what democracy is from their point of view. According to the participants, democracy is about living together and being social, and therefore digital media cannot contribute to democracy. They claimed that there are more important things to learn than learning how to use digital media, as exemplified in the following quote:

R4: But it cannot take over in a way, the other things you mention.... play.

[Silence]

R1: Because, after all, it is in play they process everything they experience. And it is in play they learn democracy and listening to friends and taking in that yes, but then I want to be the dog and you can be the father, and that one comes and visits and there's the doctor and you are a bit sick and all this you do.... And then there's the carpenter arriving in the middle of everything. No digital stuff can.....

R2: ...it's all about pre-programmed templates where somebody has decided how to think, isn't it?

R1: Yes, but it will be very interesting to see what's actually, yes, what will be included in it – the digital stuff. Because if they can decide, they want to watch a film or play a game. And I hear.... We have children here now, who are only allowed to play games during the weekend. Otherwise, there will be tablets and TV-games...and we're talking three, four-year-olds.

In this excerpt, it is stated that some children play a lot of digital games at home, and it is important to let these children do other things at preschool. This is part of the preschool's mission as well—compensating for the children's home environment—but they never mention that those children, who live in homes where there are for example no tablets, also need to receive compensation at preschool.

Use of Digital Media is for the Staff

They described digital media as addictive and referred to themselves wasting time in front of the screen, but also told stories they had heard of children who could not fall asleep without their tablets. One of them said, “I don’t think we should have that much digital stuff in preschool”, in comparison with at home. In this group, the participants agreed that there are not so many things children can do with the tablets anyway. Tablets were regarded as best suited to adults. They agreed that the children will learn how to use digital media somewhere else. However, digital tools could be useful so that staff can research facts relayed to the children:

R3: Yes, you, like, find information, and....

R1:...quickly, I can find facts to give them.

R3: Yes, then it’s a good tool.

R1: And of course, part of teaching children [is showing] that it’s possible to search for facts.

The adults performed the searches and the children watched. This group interpreted democracy to be about the news and at a level that does not concern children:

R2: For our children, there are games and songs and films and fairy tales. That’s what they can use it [the tablet] for. It’s not as if one, two-year-olds get the news and democratic literacy through the tablet. I don’t think so. Not that I know of anyway. I’m not so good at this digital stuff myself, so maybe that’s the reason I’m so negative.

Digital devices can, however, be good for practising turn-taking, an aspect of democracy highlighted by the group, and not only in relation to digital technology:

R2: Actually, I don’t know how our little ones could use it [the tablet] for democratic purposes. More like using it for other things: waiting their turn or collaborating in a game. Ours are allowed to use the tablet sometimes, but not a lot. We are not so good at it any of us.

R3: No, we’re not....

R1: With the older ones, then it’s like, sitting and waiting for your turn: “May I have it?!”. Then they will sit four on each side, just waiting for their turn, saying “I cannot see anything, I cannot see anything”, and then you have to use the hourglass, like: now it’s time to switch. Now it’s her turn. So, there you can see it [democracy], you wait your turn.

Rainbow Preschool—Everyone Agrees

The view this group expressed on democracy was mostly related to preparing children *for* democracy in the future.

They saw themselves, as adults, as responsible for filtering the world outside. This is also an aspect of the *knowledge* component. They teach the children to listen to each other, as they listen to and interpret what the children want to communicate. An aspect of listening to each other is waiting one’s turn, and they have structures for turn-taking, which can be seen as a way of working *through* democracy, as is being kind to each other.

The group was very clear on the fact that “play” does not include digital media. It seems that children at this preschool have the best possibilities to act as *subjects* during their play. One of the preschool teachers even stated that it is in play that children process everything they experience and where they learn democratic values and ways of listening to friends.

One of the participants in this group talked a lot. She exaggerated problems with digital tools by describing them in a funny way, laughing at the same time. The others often joined in her laughter. In this group, those who were not speaking themselves, confirmed what had just been said by saying yes or humming assent. This kind of confirmation was much more frequent in this group than in the others. One of the group members spoke for the whole group: “We’re not so good at it any of us”. This could of course mean that they know each other very well and really agree. Interesting to note is that this group came up with fewer ideas than the others. The discussion in the actual interview indicates that there is an informal structure of agreement and breaking this consensus by coming up with new ideas is frowned upon.

Sunflower Preschool

Children’s views are Taken into Account

This group started out with the words *influence*, *respect*, and *values education* on the mind map. When asked to explain what they meant, one of the preschool teachers said about influence: “it is important that it is real influence and not only choosing the colour of the mug”. She continued by saying that the staff have to interpret body language for those children who cannot express themselves verbally. The connection between the concepts on the mind map were expressed as follows:

Influence is the foundation of democracy, and to have influence you have to be *listened to*, which is to show *respect*, and you feel safe and confident [that you have influence].

When they were asked if and how they address society outside preschool, they started to relate that this is only done if a child mentions seeing something. Several participants agreed, until one preschool teacher claimed that they actually do this sometimes. She provided examples such as

living conditions in different parts of the world, poverty, and weather, among others. Then, the discussion changed.

It seemed as if this group had not previously discussed democracy, nor what it means to practise democracy in preschool. They hesitated a bit to start with, but then realised that they actually did practise democracy with the smallest children.

Digital Tools are for the Staff

The participants in this group started to describe using activities on tablets as something done infrequently, and in which the children were not really interested. The following discussion is an example of one person relating this information, and the others agreeing:

S2: And [the children] want to be close and touch the tablets.

I: The same tablet?

S1: Yes, we have one, or we have several, but most of the time we take out one. It's not very often we do it actually...

S3: No, because they're not asking for it.

S4: No, not the youngest ones anyway.

S6: No, they don't ask for it like before. I don't think so. It's more in certain situations the tablet comes out, and then they're allowed to sit with it. No, it's not like it was. It's not [...]. It's more like that one child can sit alone in peace and quiet.

S4: Mmm... and work with what they're working with.

However, this is a bit contradictory. A while later, somebody else described the way in which all the children wanted to have the tablet:

S1: It's a big difference to when we had 1–5 [year-olds]. With the tablet for example [...] We had a rule before at the other place, that one was responsible and two sat beside. The others had to play, and so we rotated. But here, if you take out an tablet nobody else plays.

(the others agree).

S1: Maybe after a while, but everybody is sitting. All sixteen sit at the tablet. It's a bit difficult.

It seems that some of the participants wanted to give the impression that the tablets are not in use a lot, while others questioned that picture. Sometimes the same person gave this contradictory message at different times in the interview. Note that the person quoted above distinguished between play and using the tablet. The next quotation shows that they also use the tablets to involve the children in what is published on the website where parents can see what happens at the preschool:

S7: Yes, *you* did it [pointing at a colleague], or you documented together with a child.

S1: Yes, exactly [...] There are a lot of things we've been talking about in our development group, and which are linked to this: how can the children get more influence over what we're publishing [about themselves] for example. It's in the early stages. [...].

S1:... and then just to ask the kids "What picture should we take? and "What did we do here?" and "What should we write?". You have to do that according to age of course.

The interviewer asked if they intended to explain posting the pictures and text and where everything ends up. One of the teachers said that they believed that the children were pretty aware of the fact that they can look at the posts at home with their parents – and that this is confirmed at times. But they were not sure that this applied to all the children.

Sunflower Preschool—a Budding Democracy

In this group, the discussion started out with everyone agreeing with the first speaker, focusing on problems only. At first, it seemed as if they were "watching" each other, being careful not to say something that did not fit. Everybody seemed to agree that the children did not ask for the tablets, but one of the participants questioned this by asking if the children felt that they were not listened to. The others burst into laughter like at Rainbow; there was clearly some tension. The person made a similar point after a while, and somebody else responded: "Yes, you've got a point there." The structure of the discussion then started to change. Everybody did not agree with everything that was being said, and the discussion became more open and creative. This group was comprised of staff from two different preschools that recently had merged.

As at Rainbow, this group discussed the importance of listening to the children and to each other, and turn-taking, which are examples of the *knowledge* and *skills* components, respectively. They also regarded values education as something they considered when mentioning the concept of democracy, and they tried to bring the world outside into the preschool. This is an example of the *disposition* or *values* component of democracy. This group also tried to work *through* democracy when they mentioned how they sometimes document activities with the children.

In relation to the digital tools—mostly tablets—the group from Sunflower said that the children used to ask for the tablets, but no longer did so as often. They also discussed the issue in terms of the children being "allowed to sit with it". The structure enables the children to ask for a tablet, but they need to have a teacher's approval. Using

the tablet was a possibility, but not really to act as *subjects*. Apparently tablets are usually used individually, but sometimes with all the other children in a group watching. At the same time, this group of preschool staff regarded influence as the foundation of democracy. In their development group, they had been discussing how children can obtain more influence over what they publish about themselves on the website where they communicate with parents, so the intention seemed to be that the children should be able to act as *subjects* in these matters.

Lady Bug Preschool

Children are Involved in Decision-making Processes

Both groups from Lady Bug discussed in a thoughtful manner, listening carefully to each other. Participants freely expressed agreement or disagreement, and our impression was that every opinion was met with respect. The discussions were lively, but there was time for everybody to express their views. In one of the groups, the interviewer asked what they meant by something they wrote on the mind map. Somebody talked on behalf of the group and said, “we think...”, but ended her sentence with “I *think* I speak for everybody”. Directly afterwards somebody else said that she had a different opinion and gave a completely different explanation, which was accepted by the group. They also supported each other on various occasions during the interview, for example by stating, “you explained very well what we were talking about”.

Both groups problematised their work in different ways, asking themselves if they really work democratically. When talking about children’s influence, one of the preschool teachers said that the children cannot choose to be at the preschool: “We even have a fence around the building!” There is always a balance between the possible and the impossible. They gave examples of how they worked and tried to be systematic in listening to the children’s voices, and also said that they listened in different ways. One of the groups discussed how they analyse the documentation about the children – observations and notes – in order to understand what they want.

They also gave examples of how they discuss what happens in society; 9/11 was one example that was given. However, they also noted that, there were spontaneous talks, such as about things they can see through windows. It is important to broaden the activities, so that each child can discover their interests and eventually develop their identity. Everybody has to be accepted and the staff have to practise what they teach.

Affordances

The groups at Lady Bug discussed democracy in terms of accessibility and availability to every single child and how this must be achieved in different ways: both on the terms of the individual and the group. To create such an environment, it is important not to lock things away or have too many restrictions. This is the way both groups started to talk about digital tools:

L4: As our interactive floor for example ...[] those who are a bit loud they get [access]....and then they [the children] make a list for whose turn it is. I must say they are very good at...rotation and so. But when many of the children were absent for illness, there were children I’ve never seen there before. And... [...]. It could have been a coincidence, but my impression was that they dared to show up, because it was quiet. And the [interactive] floor was turned on, and nobody was there, so it was available without elbowing their way in. And I thought that we have to work on this. How can we organise ourselves, so that it will be accessible to everybody? Because there was a lot happening [those days]....many [children] helped themselves in a way I hadn’t seen before.

First, the discussion was about an interactive mat, but quite soon it also included the importance of preparing children for life in a world overloaded with information, and how the children could learn how to know what is important, as exemplified in the next extract:

L1: I think of how important digital competence is when you can find so much information about how things in the world work. How important it is to learn, to develop a digital competence and also source criticism and things like that. Because it is through digital tools you find the biggest information channel nowadays. We don’t read as many books for example [...], and source criticism is very important to learn.

L3: And analysis, it’s highlighted so much at school: analysis, analysis, analysis. Everything you read, you have to analyse. What is written between the lines, what is the most important and what is ballast and so? This is also something you can start with in preschool when you read something, for example information about alligators: *This* is important to know!

They also discussed their own competence, how they had learned and that they still were learning. It is a question of lifelong learning for themselves as well as for the preschool children. One of the participants told the others how she until recently had used Google without reflection, but then listened to a lecture. Lifelong learning is a matter of attitude, and communicating this to the children is important:

L3: It is important to talk with the children about what is real what is not real. That a lot of things are people pretending, also the information they will search for when they become older. Just because it's in Wikipedia, it doesn't mean it's 1,000 percent that it's right.[...] Google is not God, it's not. The one deciding, is *me*, *my* approach and what *I* think is right or not.

L2: I think like that for myself, the approach, because I will never catch up. The children are so much in advance, technologically, I mean. But I can teach them an approach and join them by saying: "Now we might have to think a bit critically here". The children may be good at searching, but I need to demonstrate the approach, because I will always lag behind. But I think I can add other pieces to the puzzle. That's how I think.

L3: Like when they just show thin, thin girls. Reality doesn't look like that.

The same topic – the importance of source criticism and thinking for yourself – was discussed in both groups. They highlighted the importance of using other means for searching and not always relying on Google. They also discussed the democratic aspect of searching and that being present as an adult is important in this respect. Being present was explained as hearing what the children talk about, so that one can respond immediately.

Enabling Children as Subjects Through Complementary Actions

The groups discussed the part of their mission that includes broadening the children's experiences. For example, they commented that it is sometimes taken for granted that everybody has a tablet at home, but that this is not always the case. The preschool has a responsibility to show those children alternatives to enable them to take initiative regarding technology. One of the preschool teachers gave an example from his own experience, and related this response to comments from friends fearing that technology can be dangerous to their children:

L7: I think that we, who work here, have to keep up with society [...] I have a lot of friends who begin to have children, they say: "I will not buy an iPad, I will not have something like that". I ask them, "Why?" "It's not good for them to just sit there". They're using old clichés. "They [the children] should play outdoors".

I: What do you say to them?

L7: I use to say to my friends: Think of how much it can add. It can really add things instead. They think games. It can expand and develop our way of working. If we're sitting and drawing for example, you can find an image quickly, and look at it. We can work with fuse

beads and get inspiration. Create, so it becomes a tool for something. That's what it is.....

The discussion continued on the importance of "seeing" all children and their needs. One way of doing this is to analyse the documentation to understand what the children want through their initiatives, for example, by what they ask for. They also discussed how children are not always able to articulate what they want, and that it is their responsibility to let "everybody get a chance", as expressed below.

L5: Everybody has to get a chance. Everybody, also the one standing in a faraway corner has to get a chance to learn to use the digital tools. Not only the one standing in front. And I'm the one who has to notice. But it is difficult, because most of the time you see the one standing in front wanting something: "me, me, me".

A child can avoid activities for different reasons, as mentioned above, but regardless of the reason, the preschool's mission is to broaden their experiences.

Lady Bug Preschool—Preparing Children for Life

The groups from Lady Bug discussed the importance of preparing children for life in a world overloaded with information, and how they can learn what is important. They also discussed their own competence, how they had learned and that they were still learning. It is a question of lifelong learning for themselves as well as for the preschool children. Here we can assume that they want to teach the children about democracy in a democratic way—*through* democracy.

These groups had much more thoughtful reflections and visions on working *through* democracy than the groups from Rainbow and Sunflower had. They provided examples of how they work and try to listen systematically to the children, and also of listening in different ways, to facilitate the children's influence on preschool activities in the *here and now*.

It is important to broaden the activities in preschool, so that each child can discover their interests and develop their identities as *subjects*. They discussed the importance of accepting everybody and of the staff practising what they teach. These groups discussed in such a way that everybody was listened to and all opinions were allowed. Some participants expressed problems with digital tools, but the discussions developed all the time, something which also happened to a lesser extent in the discussions at Sunflower. Here they used expressions such as *collective learning*. Silence was allowed to a greater extent; in one of the groups silence sometimes lasted several minutes.

The two groups also discussed democracy in terms of accessibility and availability to every single child, for example by creating an environment without too many

restrictions, where material should be available to all the children. They further thought that digital tools should be available to all children. The staff really saw using digital tools as a prerequisite for participation in today's society—both for being and becoming a citizen.

Summary of Results

The findings show that the staff from the three preschools expressed very different views on using digital tools and developing the preschool children's digital competence, and that these views corresponded with their general views on democracy. At Rainbow, the teachers were merely able to discuss the concept of democracy and did not really elaborate on what it can mean in terms of education *for* or *through* democracy. They also viewed digital tools as not really belonging in preschool. At the other end of the spectrum, the groups from Lady Bug discussed ways of learning democracy *for* and *through* democracy, and digital tools as playing an important part in this—not just for the children's future lives but also in the *here and now*. They for example discussed their roles as teachers and how they interacted with the children, thus enabling them to become *subjects*. We interpret this as the staff from Lady Bug seeing digital competence as a part of civic competence (see Council of Europe 2006, 2018).

The ways in which the groups expressed their views of democracy were also reflected in the ways they conducted their discussions. The staff's own inadequate digital competence was briefly mentioned as a reason for not using the digital devices by the group using them the least, but this does not seem to be the main reason for their infrequent use of digital media with the children. The groups describing digital tools as being very important, also talked about how they themselves have to learn new things all the time, something which seemed to be more difficult in the groups with a more closed discussion atmosphere.

Discussion

The groups in this study generally adopted very different discussion styles. The way in which participants discussed the use of digital tools and preschool children's digital competencies corresponded to their views on democracy in preschool. We cannot know for sure that the view of democracy expressed at Rainbow means that this group just listens to the children and does not encourage them to participate in other ways, but we can conclude that the group was unable to further elaborate on their ideas about democracy (see Swedish Schools Inspectorate 2018; Tofteland 2018).

The views of democracy in preschool expressed by the groups from these three preschools reflect their views on

whether or not digital devices can play a role in fostering democratic citizens. Not using digital tools with the preschool children can of course be due to a lack of competence, but our results show that some preschool staff simply do not find such tools useful. This is in line with research showing that digital tools pose a threat to more important activities (Hernwall 2016; Ljung-Djårf 2008), or cause health issues (Liu et al., 2014; Palaiologou 2016). Today, digital tools are an important part of societies all over the world. Nevertheless the staff at Rainbow did not feel that digital tools belong in their preschool, especially not as part of democratic education. Neither did they mention the use of digital tools for preparing the children for their future in school (Marklund and Dunkels 2016), other than training them in skills like listening to each other and waiting one's turn (Beschorner and Hutchison 2013); training which can also be done without digital tools. The teachers at Rainbow saw it as their role as adults to be in control of the tablets, while they at the same time described their lack of knowledge concerning digital tools. The staff from Lady Bug gave examples of how using digital tools could be rooted in children's everyday lives. They described how they let the children discuss what should be published on the platforms their guardians have access to (see Serriere 2010). These examples are related to the children's right to express themselves (see Forsling 2017; Moinian et al. 2016), and also show that it is possible and relatively easy to adopt a *here-and-now* approach (Biesta 2007).

Nilsen (2018) highlights the strong focus on the pedagogical value of apps used in preschool—as well as on technology in general. She finds that activities using tablets and initiated by preschool teachers always have a clear pedagogical aim. In her study, however, this aim was not always reached by the children, since they followed another logic in the games. In the present study, the staff from Lady Bug did not go into the details of each activity, but rather talked about an overarching aim that includes all activities, even if they were not explicitly planned. This is in line with Nilsen's (2018) and Fleer's (2017) findings that the pedagogical potential of each app is dependent on the context, and can differ between situations.

Swedish society has a long tradition of democracy, which is reflected in all steering documents for preschools and schools. For a long time, most people have had no reason to fight for their rights or for welfare, and maybe democracy has been taken for granted. As mentioned in the introduction, the Swedish Schools Inspectorate (2018) found that, in spite of good examples of democratic practice, most preschool staff had difficulties in verbalising how they implemented the democratic mission. Our interviews do not indicate the extent to which this previous result is related to a lack of ability to verbalise democracy. Perhaps the discussions at Rainbow, for example, just follow a familiar pattern, but in

practice the teachers work differently. As we can see from the discussions at Sunflower, some of the participants did not seem to be fully aware of the fact that what they have been doing can be considered promoting democracy, as also stated by Ribaeus (2014) and the Swedish Schools Inspectorate (2018). With the help of their colleagues, they realised what had actually been achieved. The discussion atmosphere at Rainbow would not allow this kind of realisation, but none of the participants there seemed to hesitate expressing their thoughts, since they all verbalised the same ideas. It is possible that an external person with a different view could have made them consider their discussion and practice differently.

This is a limited study; only staff groups from three preschools were interviewed. The principals selected the interviewees. Although we had asked for mixed groups, we do not know whether the principals selected staff they knew would represent a certain perspective. However, the three different perspectives we found are all represented among persons working in preschools, and this is something that needs to be considered to create better conditions for digitalisation as an aspect of democratic education. The fact that preschool staff experience difficulties verbalising their democratic mission is of course a limitation of a study based on analysing views of democracy expressed orally. Nevertheless, we would like to argue that even though the staff from Rainbow did not demonstrate a sophisticated view of democracy, the participants agreed that certain aspects of democracy—the news, for example—were not for children, and that children's use of digital devices must be severely limited. This view was expressed repeatedly. Instead, the staff claimed that democracy is learned during play, although we cannot be certain that every single individual in the group embraced this view, which is another limitation of our study. There might be a risk that a lack of discussion can lead to difficulties when relatively new phenomena have to be integrated into preschool practice—such as digital tools, the topic of this article.

In Sweden, demands that preschool teachers use digital tools and promote children's digital competence in preschool have increased and recently become stronger. It has been found that, in spite of strong guidelines for a number of years, teachers in Swedish schools do not use technology to a great extent (SNAE 2019). A reason for this seems to be that teachers do not feel well enough prepared to use the technology pedagogically. This was also mentioned in the discussions analysed for the present study. In relation to Nilsen's (2018) study, one can ask if the fear of having to provide pedagogical justification for every single activity with digital tools creates this uncertainty and holds teachers back.

If every child is to be given the chance to learn, we have to create the conditions that promote this goal. Children have the right to acquire knowledge about and participate in a

society where digitalisation is an integrated part. Instead of only noting that preschool teachers do not use digital tools, there is a need for further studies on their reasons for not doing so, and in what way preschool teachers can find such tools useful. An unexpected finding is that the children's use of digital tools is so closely connected to the teachers' view of democracy, which can also reflect the views of the children. We hope our findings may inspire discussions between and among researchers, practitioners, and politicians, as well as further research. Future discussions and research must also take the children's views into consideration.

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