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Socio-digital divides in Norwegian education

How variation in parental mediation and pedagogical approaches influenced experiences of remote schooling during the Covid-19 pandemic

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Abstract
In this study, we investigate how variation in parental mediation and pedagogical approaches influenced experiences of remote schooling during the Covid-19 pandemic in Norway. We draw on a unique dataset of qualitative interview material involving 15 Norwegian school children (aged 6-12) and their families. We found that for many of our participants, the period of remote schooling was characterized by learning alone or with the help of family members. Related to this, variation in parental mediation strategies, including more restrictive and more enabling approaches, combined with variation in pedagogical approaches, influenced our participants' experiences of remote schooling. Both parental mediation and pedagogical approaches in turn influence how our participants experienced the social aspects of learning during the pandemic. Our material and analysis provide insights into how the combination of parental mediation and pedagogical approaches has the potential to sustain and enhance previously underexplored socio-digital divides in Norwegian society.

Keywords
Socio-digital divides, parental mediation, remote schooling, Covid-19, Social aspects of learning

Introduction

'Digital divides' refer to inequalities in the access and use of information and communication technologies (ICTs) and in the outcomes of this use (Van Deursen & Helsper, 2015; Gunkel, 2003; Schradie, 2011). Research related to digital divides has identified several socio-demographic variables that appear to contribute to digital divides (Van Deursen & Helsper, 2015). The offline resources that affect different Internet use are income, gender,

age and education (van Deursen & van Dijk, 2014). A high level of education and income is considered an indicator of socio-economic resources, and consequently this facilitates a more productive use of the Internet (van Deursen & Helsper, 2015).

Despite the persistence of digital divides, Norwegian children and young people are reported to have high levels of access to ICTs. An international survey conducted by the EU Kids Online network before the pandemic revealed that on average, Norwegian children (aged 9-17), used the Internet for just under four hours per day, and that 96% had access to mobile phones (Staksrud & Olafsson, 2019). This was the highest recorded level of Internet use amongst children and young people from 19 European countries (Smahel et al., 2020). While Norwegian children used the Internet frequently, their use was more social than educational (Staksrud & Olafsson, 2019).

Another important factor that influences children and young people's use of ICTs is the extent to which they have access to these technologies at school. 98% of Norwegian pupils attend well-funded public schools which provide access to ICTs and broadband. Since 2007, most upper secondary schools have offered students a computer for personal use. 33% of 4th graders, 50% of 7th graders and 82.5% of 9th graders have received a tablet or PC from their school (Fjørtoft et al., 2019). However, in spite of these high levels of access, recent research has revealed that Norwegian children and their families experienced different outcomes from remote schooling during the pandemic (Blikstad-Balas et al., 2022).

While it is often assumed that children and young people in the global north have near-universal access to ICTs, international research examining remote schooling during the pandemic has indicated that opportunities for learning were influenced by digital divides. Part of the explanation for the variation might arise because of significant variation in the pedagogical use of digital technology and the digital competence of teachers (Egeberg et al., 2016; Furberg et al., 2016; Gilje et al., 2016).

Brandtzaeg (2016) points out that students with more advanced usage patterns and increased focus on productive use of digital technology at school can have increased access to information and resources, and more importantly – social capital. Thus, digital divides can persist even when children and young people have autonomous and unlimited access to ICT infrastructure, and two users with the same access to digital technology and digital skills can benefit differently from their use of technology (van Deursen & Helsper, 2015). Another factor which influences how children and young people access and use digital media is parental mediation (Yuen et al., 2018). Parents can for example choose to restrict children's access to media and technological devices to minimise their exposure to risk, or to encourage and support their children's engagement with these technologies. In general, two broad strategies are identified in research on parental mediation. These are 'enabling mediation' and 'restrictive mediation'. Enabling mediation refers to practices that parents engage in to support their children in realizing positive outcomes of ICT use. 'Restrictive mediation' refers to practices that parents engage in to limit media use (Livingstone et al., 2017).

In this study, we investigate how variation in parental mediation and pedagogical approaches influenced experiences of remote schooling during the Covid-19 pandemic. The period of remote schooling in Norway lasted for eight weeks, from 16 March to 1 May 2020. During this time, Norwegian teachers and principals had to quickly convert all educational activities to remote schooling contexts. For many pupils, the period of remote schooling was characterized by learning alone or with the help of family members. Children and young people had to use the ICTs that were available at home to participate in education (Blikstad-Balas et al., 2022). This therefore presents an interesting case to explore how variation in approaches to parental mediation and pedagogical approaches reflect previously underexplored socio-digital divides in Norwegian education.

Remote schooling during Covid- 19

A literature review of 81 studies from OECD countries conducted for the Norwegian Authority for Children, Youth and Families found that a range of different socio-digital factors made children and youth more vulnerable to negative effects of the pandemic, including potential loss of learning and negative consequences for well-being. These factors included age, academic ability (prior to the pandemic), the extent of support available to children from teachers and parents during the period of remote schooling, and the chosen pedagogical approach (Nøkleby et al., 2021).

In general, the period of remote schooling was considered to demand a higher degree of independent learning on the part of the students, as opportunities for contact between students and teachers were reduced. Younger children were found to require most help from parents to access remote learning (Caspersen et al., 2021; Wistoft et al., 2020). They were also found to experience the least degree of contact with and support from their teachers during the period (Blikstad-Balas et al., 2022). Less opportunities for collaboration between students were also reported (Andersen et al., 2021; Caspersen et al., 2021). As a result, students in the remote schooling context who could rely on support, whether from their parents or otherwise, were better positioned to realize opportunities for learning. In particular, the additional requirement for parents to work from home during the pandemic was found to be incompatible with the requirement to support younger children during the home-schooling period (Blikstad-Balas et al., 2022; Letnes et al., 2021). Remote schooling affected primary school students' learning. Learning loss was observed in mathematics, spelling, and reading. Children from families where parents reported lower levels of education experienced on average 60% more learning loss when compared to the overall group (Engzell et al., 2021). Other studies, however, revealed more positive or mixed experiences (Blikstad-Balas et al., 2022; Bubb & Jones, 2020; Sandvik et al., 2020). Unequal access to qualified help at home challenges the core ideals of the Nordic model of education, where providing equal opportunities to learn is a key ambition.

To sum up, research reveals that the transition to remote schooling in Norway was influenced by age, levels of academic achievement, the degree of support available to students in the home context, and the pedagogical approach. These factors influenced the extent to which students could benefit from learning opportunities. However, the importance of variation in approaches to parental mediation of children's digital media use, and of how these approaches interacted with variation in approaches to digital pedagogy during the period of lockdown, has not been explored. In this article, we therefore address the following research questions:

- How did Norwegian children and their families experience the transition to remote schooling during the Covid-19 pandemic?
- How might these experiences reflect persistent or previously underexplored socio-digital divides in Norwegian society?

We draw on a unique dataset of qualitative interview material, involving 15 Norwegian school children (aged 6-12) and their families. The study is part of a broader international mixed-method investigation of the consequences of the pandemic for children's digital lives.[1] Our interview topics focused on the use of technology, remote schooling, parental mediation, online security, and well-being.

1. During the early days of the pandemic and in collaboration with 26 research centres in 15 European countries, UNICEF's research office and the EU's Joint Research Centre (JRC) – we designed a research project entitled Kids' Digital Lives During COVID-19 Times (KiDiCoTi).

Method

Participants and sample

Our study was conducted during the first wave of the Covid-19 crisis in Norway (June-July 2020). Families with children (aged 6 to 12) were recruited for online video interviews. Using a snowball strategy. One parent and one child from 19 families were asked to participate, and 15 confirmed (see Figure 1).

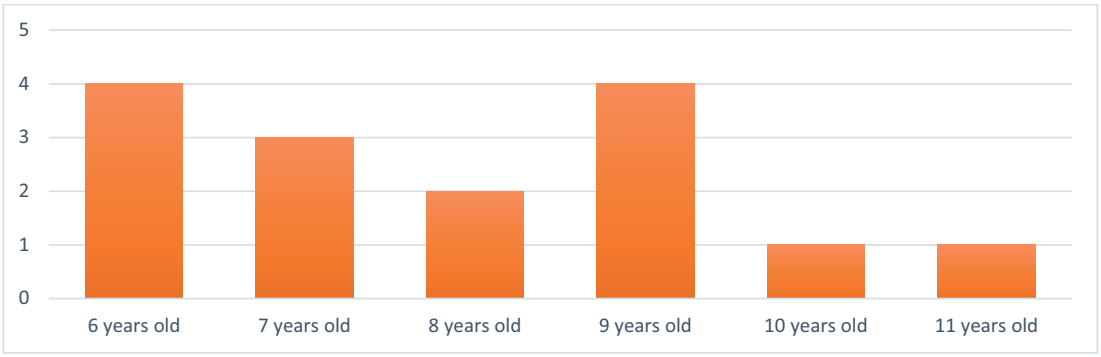

Figure 1 Age of the children interviewed.

The purpose of the selection was to emphasize diversity, richness, and variety in terms of children's age, gender, family composition, geography (some rural and some in a city), parental education and income. This facilitated an exploration of the heterogeneity of experiences. The recruited families had 1-3 children (see Figure 2).

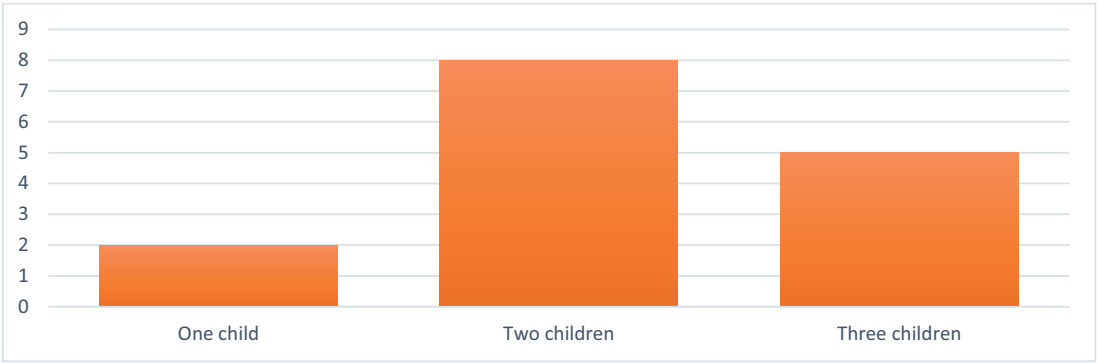

Figure 2 Number of children in the different families

Some children had older and/or younger siblings (see figure 3).

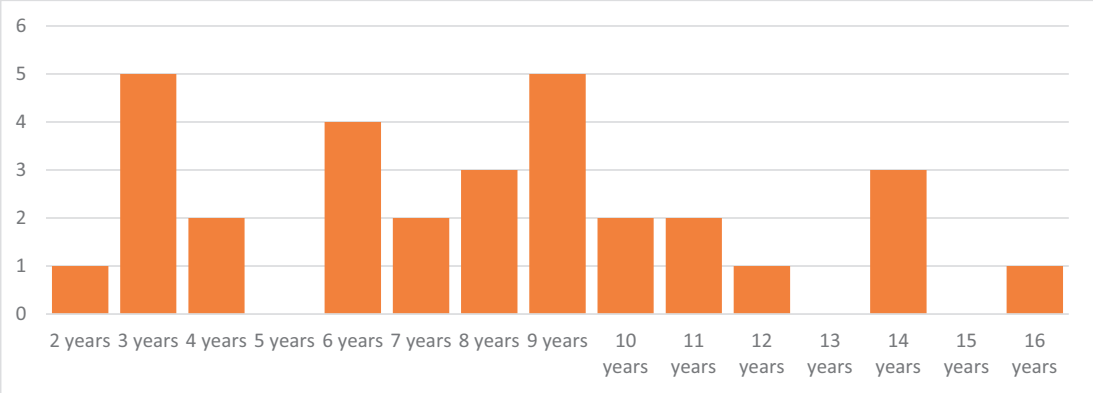

Figure 3 Age of all children in the fifteen families

Our sample included both single and multiple parents. Some families included non-Norwegian nationals. For a detailed description of our methodological approach see Letnes et al. (2021)[2].

The families received an activity booklet for the children, and a link to a pre-interview questionnaire about the family's technological inventory and use. The activity booklet contained 10 exercises (e.g., "draw your family") and questions (e.g., "what do you miss during lockdown?"), in which the children could draw and write about their thoughts, feelings, and activities during lockdown. This served as an "icebreaker" during the interviews with the children, as a way to motivate them for the interview, and to draw attention to their everyday life experiences during lockdown (Corsaro, 2005; Noble-Carr, 2006). The pre-interview questionnaire focused on the families' socio-economic background (e.g., level of education), and access and use of technological devices and activities. This also formed the basis for the interview.

The average duration of each interview was just over one hour (including 15-30 minutes with the child). The parents were present or in the background while the children were interviewed. Most children preferred to leave the room while the parent was interviewed but some remained. During the whole interview the families were given the opportunity to ask questions.

Data and analysis

In the analysis of the qualitative interviews, we draw on *Reflexive thematic analysis* (RTA; Braun & Clarke, 2006, 2019) as a suitable approach to exploring the children's and parents' experiences of remote schooling, including digital involvement and changes during the initial phase of the pandemic. RTA is attuned to the semantic content of the data and is in line with inductive approaches highlighting how the data inform the themes.

The data analysis consisted of several phases. First, all recordings were transcribed, and the researchers *familiarized* themselves with the data by reading and rereading the inter-

2. The families received and signed informed consent forms for both parents and children which provided information about the project, data protection, and their possibility to withdraw from participation. The interviews were recorded, encrypted, and stored in a temporary repository at the University of Oslo until anonymized transcripts were made. As soon as the transcript was completed, the recordings were deleted permanently. During the entire study, all personal data collected were stored with appropriate security and protective measures.

views. Second, we *generated initial codes* by highlighting parts of the text and making systematic and thorough "codes" or shorthand labels for the relevant and meaningful parts of the data material. The wording of the codes was semantic, descriptive and "kept close" to the quotes from the informants. Third, relevant coded parts with quotes were *searched and sorted into potential themes*. The codes became clustered and grouped with names that were more general. Relevant coded parts with quotes were collaged into one file for each interview. In this way, it was possible to get a condensed overview of the experiences and meanings throughout the dataset without losing closeness to the participants meaning making. Fourth, the researchers *reviewed, refined, and generated the themes and sub-themes* by looking over the general codes to identify patterns across the dataset. At this phase, we discarded vague codes, incorporated, and combined others, and renamed some codes. We highlighted codes that made sense as themes and sub-themes and reviewed the hierarchy of themes and sub-themes. Fifth, the focus turned to *labelling and defining* the themes and sub-themes in the most meaningful, informative, and accurate representation of the data. In the fifth phase, we became aware of how differently the families experienced and described remote schooling, and of how important approaches to parental mediation were in this regard. The combination of variation in approaches to parental mediation, and pedagogical approaches, influenced socio-digital divides which in turn impacted how our participants experienced the social aspects of remote learning.

Results

Our analysis produced three overarching themes relating to variation in approaches to parental mediation, variation in pedagogical approaches and variation in the social aspects of remote schooling. Each of these themes influenced our participants' experiences of remote schooling. They also revealed that some children and their families had better access to resources that could support them in realizing the benefits of remote schooling. The experiences reported by our participants reveal persistent and underexplored socio-digital divides in children's home and school contexts which influence opportunities for learning. The importance of acknowledging and facilitating the social aspects of learning (for security and well-being) are highlighted. In the following, we will present our findings organized according to the three themes and associated sub-themes that emerged during the analysis.

First theme: Approaches to parental mediation and experiences of remote schooling

All of the children in our study had access to their own digital devices during lockdown. However, a few participants (n=3) reported that they had to purchase new technologies to meet the increased need for access to the number of digital devices that were available at home.

In general, most of the parents in our study were positive towards the use of digital technology for schoolwork during lockdown. Nevertheless, many said that they were worried about the consequent increase in their children's use of digital media and screen time. The parents' approaches to addressing these concerns varied. Just under one-third of the parents (4 out of 15) reported that they restricted their children's access to digital media. This was particularly relevant for parents of younger children. These parents wanted their children to use digital devices as little as possible, and expressed dissatisfaction about the use of technology in schools in the early years. Trine (mother), for example criticized the fact that children start using technology as early as first grade:

> The school uses iPads, and the pupils already had received these in the autumn 2019, so Stine (daughter, 7 years old) had her own digital device during the lockdown. They could have waited until they were older. We would not have given Stine an iPad this early (Trine, mother).

Although Stine has her own iPad, her mother, Trine, restricts the extent to which she can use it. Trine considers that Stine is still young, and needs support to regulate her own screen use. However, Trine also notices that Stine tries to use the iPad whenever possible. Similarly, Pia's father, Tor, says that Pia (daughter, 7 years old) can use an iPad on her own within time frames that he determines. The content Pia can access is however limited, by a filter, to NRK Super. Pia does not have access to YouTube or social media. Tor is not thoroughly convinced about the benefits of these: "No, this is a world we are not going to enter, really (laughs a bit)".

Both Trine and Tor engage in restrictive mediation to limit the extent to which their children use ICTs, and to ensure that the content which they access is appropriate. These parents consider that their children need support to regulate screen use. The transition to remote schooling required these parents to adjust their approaches to parental mediation, to ensure that their children could use these technologies as required to participate in education.

Ella's parents were more critical of schools which provided young children with access to computers and tablets:

> I am open to the idea of school digitalization to a certain degree, but I am happy that Ella (daughter, 6 years old) does not have her own tablet yet: I'm not against it; I just think that when they start school, they have to learn how to learn, and using a machine can make everything so simple (Lene, mother).

On the other hand, some parents were keen to support their children's use of digital media, stating for example that 'technology is important to my child, and I want the technology to be used for learning purposes'. Parents in this group employed more enabling strategies to mediate their children's media use. Stine (mother) was particularly concerned with making sure that the children mastered study techniques and established a good working routine. After a while she realized that the children became more independent and could control their own learning process.

The parents in our sample engaged in different practices to restrict or enable their children's use of ICTs. Some parents were quite critical of the extent to which schools provided children with access to digital technology from an early age, while others engaged in enabling strategies to facilitate the extent to which their children could benefit from using these media and devices. These different approaches to parental mediation interacted with the school's approaches to digital pedagogy in ways which had consequences for our participants' experiences of remote schooling.

Second theme: Variation in pedagogical approaches to remote schooling

When the physical schools closed teachers were dependent on digital learning technologies and platforms to provide learning opportunities for their students. The schools were forced to transform physical teaching to online solutions. To achieve this, technologies and devices that were previously used primarily for entertainment in the home context, were used for more educational purposes:

> This remote schooling period introduced new practices for both parents and children, who had their iPads roughly half a year, so they were quite experienced, but encountered a big change regarding the use of iPads for learning and not for entertainment (Sverre, father).

The ways in which these learning experiences were designed and experienced by the families in our study varied. Some families experienced that their child's teacher used a learning platform as an archive.

> The digital aspect of remote schooling is related to the fact that her schoolwork was uploaded onto an educational platform, then downloaded, completed offline and uploaded again. In this sense, the lessons were distributed digitally, rather than worked on digitally. As a result, Chloe (daughter) has 'a giant pile of papers' in her bedroom (Tim, father).

In a slightly more developed approach, Maren (girl, 9 years old) used her iPad for remote schooling and attended at fixed times, including weekday morning meetings at 8:30 on Microsoft Teams. Attendance was taken before lessons began, and the sessions concluded with a personal conversation with the teacher. Teams was not something that the teachers or the class was familiar with, but it did not take long before they got the hang of it. Maren says that they used their schoolbooks to do different tasks delivered online on the learning platform Zokrates. On this platform, they also could see their schedules and what their teachers published. According to Maren, the lessons were not that different from what they were used to in normal school.

It seems that Maren's teacher has the digital skills required to maintain the school life of the children, even though Maren is only 9 years old. While Maren's father stated that 'The kids took it much better than the grownups,' this does not happen by itself; this must be staged and facilitated by the teacher.

Several of the families experienced that they had a good collaboration with the school during the lockdown, while others were not in contact with the school other than through some emails or messages:

> Remote schooling allowed me to gain a deeper understanding of what my children do at school, and I liked that. Perhaps students could have one day at home a week even after the pandemic. […] Communication between home and school was, I think, very important to get everything to work smoothly (Stine, mother).

Some families experienced that the transition to remote schooling led to the development of new learning strategies for all family members:

> The working methods changed for everyone in the family: take, for example, Teams: I had never used this before in work either, so we really got a crash course in that. Both with regard to the way we worked and the way the kids communicated. Both of the oldest children Casper, (son, 11 years old) and Peder (son, 9 years old) worked in a completely different way with assignments, writing and drawing. They really did a lot on those learning tablets, yes really almost everything (Bård, father).

Other families experienced that their children's teachers developed creative projects for their pupils. Some of the teachers gave students tasks which they could solve digitally, for example by producing pictures, movies, or books. In this way, the students both had access to technology, and used these technologies in a productive and creative way.

Some of our families experienced that the children also became more adept with digital technology. Lene for example says that technology has changed Ella's (daughter, 6 years old) life in that she can now be more independent.

> Emilie (daughter, 9 years old) has become more adept with digital media both in terms of using a variety of different apps and services simultaneously, as well as solving technical challenges (Petter, father).

The variation in how schools facilitate remote schooling included basic approaches to facilitate remote schooling by using digital platforms as an archive, to more complex and creative approaches to ensuring the continuation of pedagogical programmes while also developing the children's creative production and digital skills. The variation influenced our participants' experiences of remote schooling.

Third theme: Variation in experiences of the social aspects of learning during remote schooling

During the period of remote schooling, the social aspects of learning became more difficult to facilitate and the students became increasingly dependent on the resources they had at home. The amount of help and support the children got from their parents was quite diverse and influenced the students' schoolwork.

> The students experience a different dynamic in remote schooling. Because of this, I was motivated to help Sverre (son, 11 years old) and asked him questions that made him think for himself to ensure that he was learning what he was supposed to learn. I also attempted to compensate for the lack of interaction with classmates by being more active myself. However, I am usually quite involved in my children's schooling anyway and hold them accountable for their assignments. During the lockdown, I spent more time on this (Stine, mother).

Some of our families reported that their children had participated in group work and thus had the opportunity to be with their fellow students and collaborate with them during the school day.

> We worked individually and in smaller groups in the learning platform. During school, we had different ways of meeting digitally. For example, for common activities, such as when we did Kahoot […] it wasn't every day, only some days. But when we had Kahoot, we had almost the whole grade. When we had smaller groups, we only did it with our class. The video meetings worked well – better than I thought. I had anticipated technical problems when lots of people communicated simultaneously (Casper, boy, 11 years old).

However, in our material, very few of the families experienced that the students were placed together in groups to solve problems. Furthermore, some of the families reported a lack of scope for meaningful interaction during remote schooling. One of the families changed their approach to mediation, to facilitate playing the game *Fortnite*, because of the need for social compensation. The boys in the class met online to play *Fortnite* together. This is a game with a recommended age rating of 12 years. For this reason, Trine and Kåre did not let the boys play this game.

> We know that there is a 12-year age rating for *Fortnite*, but during Easter we realized that there were so many friends that met in this game online, each in their own living rooms, so we said okay (Trine, mother).

> I enjoy playing *Fortnite* with my friends very much – I like that we could chat, speak and play together again (Marius, son, 9 years old).

While some students did not have much contact with their teachers, others reported that they avoided wasting time during remote schooling, and that they even blossomed. Snorre (son, 9 years old) told us that: 'I did not have to wait so long, and I always got help.' His mother followed up with: 'He is one of those who almost flourished a little in the corona period' (Anne, mother).

Marius (boy, 9 years old) stated that he considered both remote schooling and normal school to have their advantages. He could concentrate more when he sat alone at home because it was quiet. At the same time, in the classroom, you can get help from the teacher.

Other families and the children in particular told us that the remote schooling provided them for an opportunity to concentrate more with the schoolwork. Sverre (boy, 11 years old) got the opportunity to become absorbed, and dwell with the content:

> During the lockdown, when we were home, I liked that we could use the Mac to do things. I concentrated more because there wasn't as much talking as in the classroom. So, I could focus very well here at home (Sverre, son, 11 years old).

Variation in the social aspects of learning – including support from teachers (and parents), but also opportunities for group work, and opportunities for quieter periods of time that supported deeper concentration, influenced how our participants experienced remote schooling.

Discussion

Understanding socio-digital divides during lockdown and remote schooling in Norway

In this article we have set out to address the following research questions:

- How did Norwegian children and their families experience the transition to remote schooling during the Covid-19 pandemic?
- How might these experiences reflect persistent or previously underexplored socio-digital divides in Norwegian society?

Access to the Internet and digital media is considered to be unproblematic in Norway. This is documented in several research studies (Throndsen & Rohatgi, 2015). This is a claim that needs to be modified. Because even though most homes have access to technology and good internet access, children's access can be blocked by attitudes that parents have. Our thematic analysis reveals that the families in our study had different approaches to parental mediation. These differences, whether more restrictive, or more enabling, had consequences for the ways in which the children in our study had access to and could use digital media, particularly for social or entertainment purposes. In general, the parents were supportive of the need to use digital media for schoolwork during lockdown, however some worried about the extent to which this in turn increased their children's overall use of digital media and 'screen time'. This was particularly relevant for the parents of younger children. Thus, variation in approaches to parental mediation influenced our participants' experiences of remote schooling.

We also know that Norwegian children experienced the transition to remote schooling in different ways, and recent research has indicated that the variation in experiences were related to a number of factors. However, previous studies have not explored how variation

in parental mediation, combined with pedagogical approaches, influences how children and their families experienced remote schooling in different ways.

We know from previous research that people with the same levels of access to digital technology and skills can benefit differently from their use of technology (van Deursen & Helsper, 2015). Brandtzæg (2016), for example, points out that students who focus on productive use of technology at school can have access to information and resources, and more importantly social capital, that drives more advanced usage patterns. Therefore, variation in pedagogical approaches is an important factor that can influence and enhance socio-digital divides.

Our participants experienced variation in pedagogical approaches. Some participants, particularly the younger participants, experienced that the schools had more limited digital pedagogical approaches, using ICTs more as an archive or as a tool to continue regular schooling at a distance. However other pupils experienced that their schools designed more creative projects and assignments and enhanced uses of ICTs.

In many cases, parents had to support their children, particularly younger children, in order for them to be able to engage with remote schooling. In this case, parents who were particularly interested in enabling their children's use of ICTs, supported their children's exploration of different applications and resources. We assume that these parents have high levels of digital skills themselves, and through this were interested in, and could spend the time, enabling their children to develop and use ICTs in creative ways during remote schooling. In this way, the interaction between enabling mediation and remote schooling meant that some children had more opportunities to engage with ICTs than others.

Finally, the combination of approaches to parental mediation and remote schooling also meant that children experienced the social aspects of learning in different ways. Some children enjoyed the opportunity for quieter time for concentration, whereas others missed their fellow pupils and the opportunities for group work and collaboration. Some parents adjusted their approaches to parental mediation in order to enable their children to be social with other children via gaming.

Thus, our study reveals the importance of the interaction between approaches to parental mediation and pedagogical approaches in terms of how they influenced participants experiences of remote schooling during lockdown. The study also reveals both persistent and underexplored socio-digital divides in Norwegian education. Children whose parents were more restrictive to their use of digital media experienced less opportunities to use these media, whether socially or otherwise, during lockdown. Some parents adjusted their approaches to parental mediation in order to compensate for the lack of physical contact and social interaction that their children experienced. Other parents, with higher levels of digital skills and resources could also enable their children's use and experience of remote schooling to a greater degree.

Our study therefore challenges the notion that Norwegian children and young people have equal opportunities to participate in an inclusive digital society because they have equal levels of access to ICTs. Different types of access and use of technologies at home can result in different levels of socio-digital divides for children and young people, both now and in the future.

It would therefore seem that schools providing children and teachers with access to digital devices, and education about how to use these devices, combined with broadband access and parental support at home, would provide a positive point of departure for children to benefit from remote schooling.

References

Andersen, A. D., Frenken, K., Galaz, V., Kern, F., Klerkx, L., Mouthaan, M., Piscicelli, L., Schor, J. B., & Vaskelainen, T. (2021). On digitalization and sustainability transitions. *Environmental Innovation and Societal Transitions*, *41*, 96-98. https://doi.org/10.1016/j.eist.2021.09.013

Blikstad-Balas, M., Roe, A., Dalland, C. P., & Klette, K. (2022). Homeschooling in Norway During the Pandemic-Digital Learning with Unequal Access to Qualified Help at Home and Unequal Learning Opportunities Provided by the School. In F. M. Reimers (Ed.), *Primary and Secondary Education During Covid-19: Disruptions to Educational Opportunity During a Pandemic* (pp. 177-201). Springer International Publishing. https://doi.org/10.1007/978-3-030-81500-4_7

Brandtzæg, P. B. (2016). The social media natives: The relationship between young peoples' media user type and their media use at school. In E. Elstad (Eds.) *Digital expectations and experiences in education* (pp. 149-162). SensePublishers. https://doi.org/10.1007/978-94-6300-648-4_9

Braun, V., & Clarke, V. (2006). Using thematic analysis in psychology. *Qualitative research in psychology*, *3*(2), 77-101. https://doi.org/10.1191/1478088706qp063oa

Braun, V., & Clarke, V. (2019). Reflecting on reflexive thematic analysis. *Qualitative Research in Sport, Exercise and Health*, *11*(4), 589-597. https://doi.org/10.1080/2159676X.2019.1628806

Bubb, S., & Jones, M.-A. (2020). Learning from the COVID-19 home-schooling experience: Listening to pupils, parents/carers and teachers. *Improving Schools*, *23*(3), 209-222. https://doi.org/10.1177/1365480220958797

Caspersen, J., Hermstad, I., Hybertsen, I., Lynnebakke, B., Vika, K., Smedsrud, J., Wendelborg, C., & Federici, R. (2021). *Koronapandemien i grunnskolen – håndtering og konsekvenser.* https://hdl.handle.net/11250/2737400

Corsaro, W. A. (2005). *The sociology of childhood* (2nd ed.). Pine Forge Press.

Egeberg, G., Hultin, H., & Berge, O. (2016). *Monitor skole 2016: Skolens digitale tilstand.*

Engzell, P., Frey, A., & Verhagen, M. D. (2021). Learning loss due to school closures during the COVID-19 pandemic. *Proceedings of the National Academy of Sciences*, *118*(17), e2022376118. https://doi.org/doi:10.1073/pnas.2022376118

Fjørtoft, S. O., Thun, S., & Buvik, M. P. (2019). *Monitor 2019 – En deskriptiv kartlegging av digital tilstand i norske skoler og barnehager.* [Rapport] SINTEF Digital.

Furberg, A. L., Lund, A., & Krumsvik, R. J. (2016). En profesjonsfaglig digitalt kompetent lærer? Muligheter og utfordringer i teknologirike læringsomgivelser. *Digital læring i skole og lærerutdanning*, 26-48.

Gilje, Ø., Ingulfsen, L., Dolonen, J. A., Furberg, A., Rasmussen, I., Kluge, A., … & Skarpaas, K. G. (2016). *Med ARK&APP. Bruk av læremidler og ressurser for læring på tvers av arbeidsformer.* Oslo: Universitetet i Oslo.

Gunkel, D. J. (2003). Second Thoughts: Toward a Critique of the Digital Divide. *New Media & Society*, *5*(4), 499–522. https://doi.org/10.1177/1461444480354003

Letnes, M.-A., Veelo, N. C., Stänicke, L. I., Ní Bhroin, N., & Rasmussen, I. (2021). *Kids' Digital Lives During COVID-19 Times Digital practices, safety and well-being of 6- to 12-year-olds – a qualitative study* [Rapport]. https://ntnuopen.ntnu.no/ntnu-xmlui/handle/11250/2728821

Livingstone, S., Ólafsson, K., Helsper, E.J., Lupiáñez-Villanueva, F., Veltri, G.A. & Folkvord, F. (2017). Maximizing Opportunities and Minimizing Risks for Children Online: The Role of Digital Skills in Emerging Strategies of Parental Mediation. *Journal of communication, 67*(1), 82-105 https://doi.org/10.1111/jcom.12277

Noble-Carr, D. (2006). *Engaging children in research on sensitive issues: a literature review.* https://acuresearchbank.acu.edu.au/item/8qq47/engaging-children-in-research-on-sensitive-issues-a-literature-review

Nøkleby, H., Berg, R. C., Muller, A. E. & Ames, H. M. R. (2021). *Konsekvenser av covid-19på barn og unges liv og helse: en hurtigoversikt.* Oslo: Folkehelseinstituttet.

Sandvik, L. V., Sommervold, O. A., Angvik, S. A., Smith, K., Strømme, A., & Svendsen, B. (2020). *Opplevelser av undervisning og vurdering i videregående skole under Covid-19s hjemmeskole.* [Rapport til skolen]. NTNU: institutt for lærerutdanning. https://www.ntnu.edu/documents/1272530013/1284701070/Rapport-undervisning-vurdering-hjemmeskole-Covid-19.pdf/841a710d-3d73-b1fe-ef76-125e9b7e9600?t=1597388448186

Schradie, J. (2011). The digital production gap: The digital divide and Web 2.0 collide. *Poetics*, *39*(2), 145-168. https://doi.org/10.1016/j.poetic.2011.02.003

Smahel, D., Machackova, H., Mascheroni, G., Dedkova, L., Staksrud, E., Ólafsson, K., Livingstone, S., & Hasebrink, U. (2020). EU Kids Online 2020: Survey results from 19 countries. EU Kids Online. https://doi.org/10.21953/lse.47fdeqj01ofo

Staksrud, E., & Olafsson, K. (2019). *Tilgang, bruk, risiko og muligheter. Norske barn på Internett. Resultater fra EU Kids Online-undersøkelsen i Norge 2018.* EU Kids Online og Institutt for medier og kommunikasjon, Universitetet i Oslo. https://www.hf.uio.no/imk/forskning/prosjekter/eu-kids-iv/rapporter/

Throndsen, I., & Rohatgi, A. (2015). Kapittel 5. In I. Throndsen & O. E. Hatlevik (Eds.), *Læring av IKT* (pp. 93-110). Universitetsforlaget. https://doi.org/10.18261/9788215025902-2015-06

van Deursen, A., & Helsper, E., J. (2015). The Third-Level Digital Divide: Who Benefits Most from Being Online? *Communication and Information Technologies Annual* (Vol. 10, pp. 29-52). Emerald Group Publishing Limited. https://doi.org/10.1108/S2050-206020150000010002

van Deursen, A. J., & van Dijk, J. A. (2014). The digital divide shifts to differences in usage. *New Media & Society*, *16*(3), 507-526. https://doi.org/10.1177/1461444813487959

Wistoft, K., Qvortrup, L., Christensen, J. H., & Qvortrup, A. (2020). Elever der havde det særligt svært med nødundervisningen under coronakrisen. *Paideia: tidsskrift for professionel pædagogisk praksis*, *20*, 22-28. https://tidsskrift.dk/Paideia/article/view/130119

Yuen, A. H., Park, J., Chen, L., & Cheng, M. (2018). The significance of cultural capital and parental mediation for digital inequity. *New Media & Society*, *20*(2), 599-617. https://doi.org/10.1177/1461444816667084