Teaching and supporting students with special-educational needs at distance during the COVID-19 school closures in Finland:

Special needs teachers' experiences

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Abstract

The aim of this research is to increase knowledge on how special education and special-educational support can be arranged at distance during crisis situations and to clarify what type of challenges special needs teachers might face when teaching and supporting students with special-educational needs at distance.

To serve the purpose of the study, two research questions were defined:

1) What teaching and support arrangements for comprehensive school students with special-educational needs were made during the COVID-19 school closures in spring 2020?

2) What challenges did Finnish comprehensive school special needs teachers face during the COVID-19 distance education period in spring 2020?

The empirical data for this study was collected through twelve semi-structured video interviews during May, June, and August 2020. The interview questions mapped out Finnish comprehensive school special needs teachers' experiences of distance learning during the exceptional time period from mid-March to mid-May 2020, during which all schools in Finland were closed due to the coronavirus pandemic. Thematic analysis was used to systematically structure the data set and analyse the emerging themes.

The research results revealed that special needs teachers' experiences of the COVID-19 distance education period varied to a great extent. Still, it is possible to distinguish some general features across the data set. Looking at the first research

question – teaching and support arrangements for students with special-educational needs during the COVID-19 school closures – three main themes were identified within the data: *Use of educational technology and distance learning materials, Implementation of special education through flexible learning solutions and special-educational guidance* and *Providing special-educational support through differentiation, interaction, and technology.*

The results to the second research question show that Finnish comprehensive school special needs teachers faced a multitude of challenges during the COVID-19 distance education period. Four main themes emerged from the thematic analysis: *Changes in everyday working life, Increased workload, Challenges in remote communication and cooperation* and *Structural and organisational issues affecting special education.*

Keywords / index words

distance education, distance learning, distance instruction, coronavirus, COVID-19, school closures, pandemic, comprehensive school, special education, special education, special needs teacher, special-educational support, etäopetus, distansundervisning, erityisopetus, specialundervisning, erityispedagogiikka, specialpedagogik

Författare

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Abstrakt

Syftet med denna kvalitativa studie är att öka kunskapen om hur specialundervisning och specialpedagogiskt stöd kan arrangeras på distans under krissituationer. Dessutom granskar denna studie vilka typer av utmaningar speciallärare kan möta då de undervisar och stöder elever med specialpedagogiska behov på distans.

För att tjäna studiens syfte har två forskningsfrågor formulerats:

1) Vilka undervisnings- och stödarrangemang gjordes för grundskoleelever med specialpedagogiska behov vid distansundervisningsperioden under coronapandemin våren 2020?

2) Vilka utmaningar mötte finländska speciallärare i grundskolan under distansundervisningsperioden under coronapandemin våren 2020?

Datainsamlingen genomfördes genom tolv semistrukturerade videointervjuer gjorda i maj, juni och augusti 2020. Intervjuerna kartlade finländska speciallärarnas erfarenheter av distansundervisning vid den exceptionella tidsperioden från mitten av mars tills mitten av maj 2020 då alla skolor i Finland stängdes på grund av coronapandemin. Tematisk analys användes för att systematiskt strukturera och tematisera datamaterialet.

Forskningsresultatet visade att speciallärarnas erfarenheter av distansundervisning under coronapandemin varierade i stor utsträckning. Ändå gick det att urskilja några allmänna trender inom data. När det kommer till den första forskningsfrågan

– undervisnings- och stödarrangemang på distans för elever med särskilda behov – framkom tre huvudteman: *Användning av utbildningsteknik och distansundervisningsmaterial*, *Implementering av specialundervisning genom flexibla undervisningsarrangemang och specialpedagogisk handledning* och *Implementering av specialpedagogiskt stöd genom differentiering, interaktion och teknik.*

Resultatet för den andra forskningsfrågan synliggjorde en stor variation bland speciallärarnas erfarenheter av distansundervisning under coronapandemin. Utgående från den tematiska analysen kunde fyra huvudteman identifieras: *Förändringar i det vardagliga arbetslivet*, *Ökad arbetsbelastning*, *Svårigheter med distanskommunikation och samarbete* och *Strukturella och organisatoriska brister som påverkar specialundervisning.*

Sökord / indexord

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1. Introduction

In this chapter, the background and aim of this research are presented. After this, the chapter moves on to explain the key concepts relevant for the study. Finally, the disposition of the thesis is briefly presented.

1.1. Background and aim of research

In Finland, compulsory basic education for school-aged children is organised as contact education by a teacher in a safe study environment, during specific work hours given in the curriculum. This safe place does not necessarily have to be a school building, but any suitable and safe location determined by the school. (Ministry of Education and Culture, [n.d]). However, distance learning, for example via video or computer, can also be used as means for learning as long as the above-mentioned criteria are met (EDUFI, [n.d. -a]).

The outbreak of the COVID-19 pandemic at the beginning of 2020 forced hundreds of thousands of Finnish comprehensive school students to switch from in-person instruction to distance learning. Of these students, 20.1% are in the need of either intensified or special support (Statistics Finland, 2020). Although some of the pupils receiving special support were entitled to in-person instruction even after the nationwide school closures came into effect, special education was mostly arranged remotely through different distance education means. According to Helsingin Sanomat, the largest subscription newspaper in Finland, many teachers were forced to work long hours and experienced exhaustion due to the exceptional schooling situation (Aalto, 2020). In addition, it appears that after transitioning to distance learning, equality in education was not achieved to the same degree as before the school closures. According to Harjunmaa (2020), this put teachers, students, and guardians alike in a difficult situation.

Adapting to distance learning was not easy for everyone, especially because distance education had never been an integral part of basic education in Finland (see e.g., Harjumaa, 2020; Koskinen, 2020, Niinistö, 2020). Gordon et al. (2010), who reviewed university preparedness for pandemic events, came to the conclusion that tertiary education institutions are already partly aware of the need to secure satisfactory education arrangements during pandemic episodes. The same cannot be said about comprehensive schools. This may be due to a lack of research from a comprehensive school perspective, or due to the common view that younger students need the physical presence of a teacher (Barbour & Reeves, 2009; Means et al., 2014). The existing research on possibilities and challenges of distance learning in a comprehensive school context and/or for students with SEN only focuses on online learning as an optional choice to in-person instruction, or as a form of complementary education (see e.g., Flores et al., 2018; Barbour & Bennett, 2013; Burgstahler et al., 2004). However, in the light of the COVID-19 pandemic, there is now considerable concern about how to arrange distance education out of absolute necessity only with a short notice.

In times of crisis, even comprehensive school should be able to arrange teaching in a satisfactory manner so that pupils with SEN are not significantly affected. Knowing how teaching and support were arranged at distance during the COVID-19 school closures and what challenges special needs teachers faced because of the exceptional situation can be of great help when further developing distance education and support practices for students with SEN. School personnel carries the understanding of their own situation, and by giving them a voice it becomes possible to identify the kind of practices they find applicable (see e.g., Hilli, 2020). Some attempts to describe the exceptional situation from the perspective of teachers have already been made: for example, Kröger (2020) wrote about how transition to distance education resulted in difficulties with teacher-student interaction, challenges in providing special-educational support, increased teacher workload, and work-related fatigue. However, it would be important to delve deeper into this theme, expressly with special education at the heart of the research.

The task of special needs teachers is to ensure that no child is left behind in their learning process. In times of exceptional circumstances, those in need of special support suffer the most as the implementation of special education becomes extra

difficult. Therefore, research on teaching arrangements in times of crisis should be carried out immediately (Kemppainen, 2020a). When the classroom guidance goes missing, students with learning difficulties might end up on the verge of dropping out (Kemppainen, 2020b). On that account, it is crucial to identify current methods of and challenges in inclusive distance learning for students with special-educational needs.

The scientific community already has some knowledge of what creates a successful distance learning experience, but the current research has remained on a general level. A special-educational perspective on distance education is still missing. Furthermore, there is far too little research regarding how teaching and special-educational support should be arranged in a comprehensive school context during a state of emergency. To develop better functioning practices in future, it is necessary to learn more about the current situation with distance learning for students with special-educational needs in comprehensive school. Similarly, we lack understanding of what kinds of challenges complicate the work of special needs teachers when forced to shift to distance learning. This gap in the existing knowledge needs to be addressed before re-thinking current practices. It all comes down to securing that special needs teachers can do their job as efficiently as possible even in times of crisis.

In the light of the above-mentioned, the aim of this research is to increase knowledge on how special needs teachers arrange teaching and support at distance, in the context of the COVID-19 pandemic school closures in Finland, and to clarify what work-related challenges comprehensive school special needs teachers faced during the state of emergency caused by the coronavirus. This study only maps out Finnish comprehensive school special needs teachers' experiences of distance learning during the exceptional time period from mid-March to mid-May 2020, during which all schools in Finland were closed due to the coronavirus pandemic. Considering that at the time of writing, the COVID-19 pandemic is still upending much of society, some Finnish comprehensive schools have resorted to distance learning even after the spring semester 2020.

1.2. Key concepts

Special needs teacher

A person is eligible to provide special education if they have either completed a Master's degree in special education, or if they otherwise have the qualification to provide either classroom or subject-based instruction while also having completed qualifying studies in special education, defined in the 17§ of Basic Education Act (21.8.1998/628). In this thesis, respondents with special needs teacher qualification are referred to as SNTs.

Special-educational needs

In this thesis, all respondents with special-educational needs despite support tier are referred to as students with SEN. These needs range from mild to severe and are addressed accordingly through three different tiers of special-pedagogical support (see *2.1. Three-tiered support model and the role of special needs teachers*).

Contact instruction and ***Distance education***

In this thesis, contact instruction (*lähiopetus, närundervisning)* is also referred to by the terms ‘in-person teaching’, ‘in-person instruction’ and ‘contact teaching’. In-person teaching is arranged face to face in school, either in a class, in a small group or between a student and SNT.

Distance education, or distance learning, is a field of education that focuses on the pedagogy, technology, and instructional system designs that aim to deliver education to students who are not physically "on site" in a traditional classroom or campus. MacTeer (2011) describes distance learning (*etäopetus, distansundervisning)* in the following way: “Distance education, or distance learning, is a field of education that focuses on the pedagogy, technology, and instructional system designs that aim to deliver education to students who are not physically "on site" in a traditional classroom or campus” (p. i). Synonyms for ‘distance education’ that are used on my behalf are ‘distance instruction’, ‘distance learning’, ‘remote instruction’ and ‘remote learning’. These terms are used even by the Finnish National Agency for Education (EDUFI). The word ‘e-learning’ is not used, since in English, this term can also refer, among other things, to a form of education that is arranged completely online, meaning that students are able to decide time, place and pace in which they want to study the

preassigned learning materials (Moore et al., 2010). This does not seem suitable, since during the COVID-19 school closure period, regular online class meetings were of great importance.

1.3. Disposition

This thesis comprises an abstract, eight chapters, a references list, two appendices and four figures. Each chapter, structured in subchapters, begins with a metatext. More specifically, the thesis is structured as follows: In chapter one, the background and aim of the research, key concepts and the disposition are presented. The 2nd chapter illuminates the conceptual and legislative background of this research, giving a closer look into the Finnish three-tiered support model and the role of SNTs in comprehensive school. Even the practicalities regarding the COVID-19 pandemic school closures in Finland are briefly presented.

In the 3rd chapter of this thesis consists of a short description of the literature search process as well as a literature review on distance learning within three different perspectives: on basic education level, when teaching students with SEN and during the first wave of the COVID-19 pandemic in spring 2020. The 4th chapter offers an insight into the Community of Inquiry (CoI) framework by Garrison et al. (1999), the Job Demand-Control (JDC) model by Karasek (1979) as well as its extended version, the Job Demand-Control-Support (JDCS) model, created by Johnson and Hall (1988).

In the 5th chapter, the aim of research, research questions and research method are presented. The chapter covers an introduction to qualitative research and semi-structured interview methods and gives a short description of the target group. Research execution, data processing and thematic analysis are described, after which ethical and quality considerations in the research design are discussed.

In the 6th chapter, the research results are presented with the help of figures and relevant quotes from the data set. First, special-educational teaching and support arrangements during the COVID-19 distance learning period are reported. Then,

challenges faced by SNTs during the COVID-19 school closures are described as experienced by the respondents. These challenges are divided into four themes, three of which describe challenges emerging as a result or alongside with the pandemic event, and one of which summarises challenges that had existed already before the school closures.

In the 7th chapter, the research method and results are discussed in the light of source material presented in chapters three and four. The 8th chapter of this thesis explains research contribution and implications. Suggestions for future research are also outlined. Finally, the references section and the appendices are placed at the end of this thesis. The full interview guide both in Finnish and Swedish can be found in appendices.

2. Conceptual and legislative framework

This chapter begins by examining the main features of the Finnish three-tiered support model, that is, the special-pedagogical system guiding how to meet the diverse needs of students in Finnish comprehensive school. The job description of SNTs is briefly introduced. The chapter ends with an overview on the COVID-19 pandemic school closures in Finland both in general and in terms of special education.

2.1. Three-tiered support model and the role of special needs teachers

In Finland, everyone has the right to comprehensive education in a mainstream class in the nearest school possible (Takala, 2010). For those who face difficulties with learning, there is a special hierarchical support system that helps to address these challenges. The Finnish model of special-educational support consists of three tiers, *general support*, *intensified support,* and *special support*. "The support methods and tools are essentially the same in all tiers, but the intensity of applying them increases towards Tier 3", describe Thuneberg et al. (2013, p. 70). It is essential that support is provided as soon as the need arises and for as long as support is needed. The special-educational measures are implemented in accordance with certain regulations: First, no student can study on several support tiers at once (EDUFi, [n.d. -c]). Secondly, the support is given through various flexible support arrangements, primarily in students' own teaching group and school (Takala, 2010). Thirdly, the support measures always start from the general ones. If these turn out to be insufficient, the student is moved to the next tier. However, exceptions can be made: if so decided, a student can start their basic education directly in the 3rd tier without taking intermediate steps. The best interests of the child always determine the tier of support.

As per Thuneberg et al. (2013), the 1st tier of the support model, general support, is meant for everyone. It is a combination of basic education of great quality and extra

support in the form of differentiating, part-time special education, and flexible groupings. If these measures are not enough, further action will be taken. Before a student can be transitioned to the tier of intensified support, a pedagogical evaluation and compulsory learning plan is made (Thuneberg et al., 2013). In autumn 2019, 11.6% of the Finnish comprehensive school students received intensified support. In need of special support were 8.5% of the comprehensive school students (Statistics Finland, 2020). Being transferred to this 3rd tier of support requires that an official decision is made, and an Individual Education Plan (IEP) is created (Thuneberg et al., 2013). In every tier, the support arrangements are evaluated, coordinated, and supported by a multi-professional student welfare group.

The role of SNTs in the three-tiered support system is central as they are responsible for many of the work assignments essential for the implementation of special-educational support: the job description of SNTs includes student instruction, pedagogical documentation, counselling of classroom and subject teachers on a variety of learning issues, and overall cooperation with students and guardians as well as principals, teachers, student health services, children's welfare services, and other parties outside the school (Takala, 2010). All these occupational groups are working with and for the same students, which makes multi-professional collaboration crucially important. Well-functioning collaboration requires regular and effective communication. Everyone is aware of each other's work areas. This is especially important when preparing pedagogical documents, negotiating whether special pedagogical support is needed, and when deciding if a student should move from one tier of support to another. In sum, SNTs can be described as "spiders" in the middle of the net connecting people, finding solutions, and coordinating this necessary multi-professional cooperation.

Referring to Takala (2010), SNTs also arrange learning disabilities screening assessments and evaluation. Assessment information is needed especially when trying to detect the underlying reasons behind learning problematic. Screening tests are usually conducted for all students at certain times, such as at the beginning of the school year or when transitioning from a certain grade to the next one. Further assessments are conducted for those who appear to have learning difficulties or otherwise show signs predicting potential future problems. These screenings have an

important role in designing and preparing individual educational plans (IEP) and other official documents that are necessary for the child to be transferred from one tier of support to another.

As per Takala (2010), special education is usually arranged beside ordinary teaching so that students with SEN still can study some or most subjects in mainstream classes with their peers. This means that most of the teaching is provided by a classroom teacher or subject teachers. SNTs are still closely involved in the learning process through cooperation. There are even additional services based on multi-professional cooperation designed to support the well-being of students, such as collective and individual pupil welfare services. These include school counselling, psychological, and social services, as well as student health services and other multidisciplinary actions. SNTs are often part of school welfare groups, because they have a broad understanding of the school-related challenges of students and know how to support their schooling in the best possible way.

Some students in the 3rd tier of support study in a special class taught by an SNT either temporarily or permanently (Takala, 2010). These students need continuous special education, often in a small group with a maximum of ten students. Learning activities are adapted according to the needs of students by using a wide range of special-pedagogical measures, tools, and approaches. Students' individual goals and personally customised support measures are written in their IEPs designed by an SNT in cooperation with parents and other professionals, such as a school social worker. Regarding measuring student performance and learning outcomes in relation to these goals, the SNT can monitor the progress of students through alternative assessment methods, such as oral exams and portfolios.

In Finland, comprehensive education is designed to take account of individual differences between students through differentiating instruction (ePerusteet, 2014). The aim is to merge different subjects and study modules into a cohesive, fully sufficient whole in which language skills and other competencies are constantly evolving. Teachers provide interactive support based on the individual characteristics of their students, such as language and studying skills, interests, motivation, and needs. In practice, differentiation is conducted by using different teaching methods, adjusting how much time is spent on each task, and varying the depth, breadth, and complexity

of the learning material. In other words, differentiation comes down to optimal teaching arrangements and selection of content that allows each student to study on the difficulty level suitable for them. This is considered essential for preventing learning difficulties, making differentiation an integral part of the three-tiered support model.

2.2. COVID-19 pandemic school closures in Finland

The first corona virus case in Finland was identified in January (Mäkinen, 2020), after which the pandemic started spreading especially in the Uusimaa region (Saavalainen, 2020). On 16th of March 2020, the Finnish Government decided on a list of measures to protect at-risk groups and stop the spreading of the coronavirus (Prime Minister's Office, 2020). One of these measures was to close schools and continue teaching in alternative ways "to the widest extent possible". Exceptions were made for pupils with SEN who require contact teaching according to their IEPs, but parents and guardians were still highly advised to arrange "childcare" at home if possible. It was initially said that the commandments are to remain in force until 13th of April, but it was later decided to extend the restrictive measures until May the 14th (Sutinen, 2020). After this, schools were reopened although with strict restrictions and special arrangements to maintain as high a level of hygiene as possible (Karkkola, 2020). In-person instruction continued until the beginning of the summer vacation at the end of May.

As stated earlier, despite the school closures, students receiving special support (3rd tier of support) were allowed to participate in contact teaching if it was considered to be essential for their learning (EDUFI, 2020). Otherwise, it was advised that remedial education and part-time special education would be provided at distance to the extent and in such ways that are possible to execute given the circumstances. The guidelines were not absolute: in some cases, remedial education and part-time special education could be provided as contact teaching even for those students who otherwise would study at distance, given that the education provider so decided, and that the safety of pupils and teaching staff was ensured by adequate distancing arrangements and hygiene measures.

EDUFI (2020) highlighted that providing support for students with SEN is a responsibility of every teacher. The suggestion was that SNTs could provide distance education to students with SEN according to a pre-agreed schedule. In addition to this, specific “on-call times” could be agreed upon, during which any student or guardian could be in contact with SNTs regarding special-educational needs or other related matters. School staff was reminded to take initiative and actively maintain a good contact both with the pupils and their guardians during the distance education period.

To support the students with SEN, classroom teachers were advised to use clear and understandable learning materials, differentiate their teaching and secure that everyone learns the essentials (EDUFI, 2020). SNTs could help in putting individual support methods to use in order to secure independent learning. It was considered particularly important that the motivation of students with SEN would not run out due to too difficult learning material or too heavy a workload.

3. Distance education – a literature review

This chapter is divided into four subchapters. The first subchapter briefly describes the literature search process. In the three subsequent subchapters, distance education is discussed within three different perspectives, presented in the following order: on basic education level, when teaching students with SEN and during the first wave of the COVID-19 pandemic in spring 2020.

3.1. Literature search process

I started the literature search process at the end of March 2020 and finished in mid-October 2020 before starting to write the discussion section. I first investigated what literature was to be found in the databases FINNA, Google Scholar and EBSCOHost. After that, I continued with manual search based on reference lists given at the end of pertinent literature. In this case "pertinent literature" refers to peer-reviewed articles on distance education during times of crisis, distance education on basic education level, and distance education for students with SEN. During my literature search, I was careful not to use any second-hand sources, except for a few relevant articles written in Italy that I was not able to understand myself. All search results were systematically saved.

Inclusion criteria for this literature review were following: Articles had to be peer-reviewed, published in a scientific journal between 2000—2020, and written either in Finnish, Swedish or English. In addition, the article should address the theme of this study from the perspective of teachers. When searching for literature, I used keywords not only in English but also in Swedish and Finnish, but all literature pertinent for this study was written in English. Therefore, no Swedish or Finnish articles are included in the next subchapter.

It should be kept in mind that the area of study – distance learning for special education during exceptional circumstances – is under-researched, and thus, lack of background

information can be considered as a limitation. Even though the literature search was carefully conducted, additional relevant content might have been found embedded in other articles that address themes closely related to distance education. Additional searches on other databases could have provided more search results.

However, I feel that within a reasonable time I would not have been able to find much more relevant content to add to the list of articles presented in the 4th chapter. Considering how little this specific research area had been studied at the time of my research process, it is reasonable to argue that the articles presented in chapter 4 cover this under-researched subject matter well enough.

It should also be mentioned that new articles on distance learning during the COVID-19 pandemic event are constantly published. The subchapter *3.3. Distance education during the COVID-19 pandemic event* covers those peer-reviewed articles that I judged to be most relevant for this study. Selection was made of all literature that had been published before the end of October 2020, when I started writing the discussion chapter. This can be seen as a limitation of this study, since it is likely that pertinent articles on special-educational teaching and support arrangements at distance have been published thereafter. Nevertheless, I believe that this study could be a starting point for further research in this topic.

3.2. Distance education on basic education level

The academic world is already partly aware of the need to secure satisfactory education arrangements even during pandemic events (Ludlow, 2014; Gordon et al., 2010). However, there is far too little research regarding how teaching on basic education level should be arranged during a state of emergency. Luckily, it is possible to utilise already existing research on the distance education experiences of secondary and tertiary education teachers. However, the differences between lower and higher education levels must be kept in mind: The teaching content taught on secondary and tertiary levels is more abstract and challenging. When teaching younger students,

teacher responsibility is greater because pupils are less independent. Thus, the challenges may be of different character and scale.

Barbour and Bennet (2013) interviewed twelve so-called ‘e-teachers’ who teach their students in rural and remote areas. The respondents in the study brought up two major challenges with distance education. These were workload and the fact that some students could not keep up with others. Similar results were obtained by Flores et al. (2018) who interviewed eight teachers who delivered secondary education in online form. These teachers experienced that time management was causing problems for both students and their teachers. What is more, distance education made it more difficult to meet the individual needs of students. Based on these findings Flores et al. (2018) recommend that those responsible for distance instruction were provided enough technology training “to ensure educational trends and best practices are followed”.

Even Louwrens and Hartnett (2015) investigated teachers’ views on online studies with a special emphasis on learning engagement among middle school students. According to their results, lower levels of student engagement in online learning environments were related to too difficult tasks, less teacher engagement, and students’ need for anonymity and privacy, as in students not being comfortable with being on display. Teachers believed that technical tools matter less as long as activities are student-centred, giving pupils some sense of control and possibilities to choose. Interaction seemed to play vital role for students in many ways. Getting feedback from both peers and teachers, scaffolding, getting support from the learning community and participating in group activities all lead to better student engagement.

The importance of social relationships becomes visible even in the study by Kalamkovic et al. (2013) where they investigated the possibility of applying distance learning activities in a primary school context. One major challenge regarding distance learning was isolation and lack of personal contact, and for this reason, distance learning cannot compensate for the social presence coming about in classroom environment. Getting the best out of distance education requires self-discipline and ability to concentrate. This is much required especially from younger pupils whose frontal lobes have not yet fully developed, and from students with concentration difficulties (Tarullo et al., 2009; Olsson & Olsson, 2007).

Additional problems with distance education are likely to arise if pupils or teachers do not have a proper broadband at home, if they do not own the devices that are needed or if they lack necessary skills to use this technology (Kalamkovic et al., 2013). Teachers already have a great workload with the content that needs to be taught, and this workload increases even more when they must learn to use new kinds of devices, applications, and web portals. What is more, some subjects revealed to be particularly challenging to teach remotely as the real-time presence. When teaching mathematics, for example, the personal real-time presence of a teacher benefits student learning considerably. Despite these challenges, Kalamkovic et al. (2013) want to point out that "[t]here are more or less suitable educational materials for on-line learning, but in any case, when a student is unable to attend regular classes, every form of acquiring knowledge is good" (p. 259).

3.3. Distance education for students with SEN

Burdette et al. (2013) discuss current issues and potential obstacles related to distance learning arrangements for students with disabilities. Researchers propose that special-educational practices and policies should be adjusted in a way that enables high-level education in a non-restrictive, inclusive manner within online learning environments. Problems regarding distance education are most likely to occur if the SNTs are not well prepared to serve students with SEN, if there are no sufficient support services available or if the curriculum is not accessible enough. It is especially important to have a number of school personnel members with knowledge and resources to support students with SEN.

Several scholars have suggested that higher education experiences should be used as a guiding star in a comprehensive school context when designing distance learning environments and practices (Burdette et al., 2013; Ludlow, 2014). According to Prensky (2010), the students themselves have already moved their learning to the World Wide Web, gaining knowledge and developing skills without the presence of a teacher. Prensky (2010) suggest that this is a trend that cannot be reversed, meaning that it is only a matter of time when educators follow the lead of their students. Even

Ludlow (2014) estimates that special education will become more Internet-oriented over time.

Burgstahler et al. (2004) discovered that making online courses accessible requires availability of necessary information – such as what support services and technical assistance there is available for students – and adequate support from the administration. In addition, institutional policies, guidelines, and standards should be clear and known to all. Those designing learning material and preparing lessons need to consider special needs and accessibility when planning the content. To be able to do so, instructors should have easy access to training, IT support, and online resources. It is noteworthy that accessible design strategies that resulted in simple-to-use well-functioning internet pages were salutary not only for students with SEN but also for other students and teachers as well (Burgstahler et al., 2004). This reinforces the idea of Edmonds (2004) that inclusive online learning measures are of advantage not only for their official target group – students with SEN – but for the school community in general.

Even in times of exceptional circumstances, students with and without SEN need both support and a feeling of connection to their peers. Nigmatov and Nasibulov (2015) see the huge potential that educational technology has regarding inclusive distance education. Online learning environments can benefit all students despite their abilities and functional diversity because these enable self-paced learning, individual-centred teaching approaches, holistic views on specific fields of knowledge and variation in teaching and cooperation methods, to name a few. For some students, studying in a home-like environment can be a great comfort. Information technologies make it possible to respond to sudden changes and adapt the learning content according to the needs of students. In sum, Nigmatov and Nasibulov (2015) believe that educational technology creates equal opportunities: for some online learning platforms remove barriers in communication, for others it gives motivation and confidence. However, these technologies need to be designed in a way that does not hinder those with functional diversity while only benefitting those with no need of special-educational support.

3.4. Distance education during the COVID-19 pandemic event

Gordon et al. (2010) recommend that learning institutions would prepare for pandemic events in advance by creating training materials, manuals and recorded online guides, and collecting them in one website where they are easily accessible to school staff. Teachers should familiarise themselves with these materials and consider which distance education methods they could apply in their own teaching in case of a crisis event. In this way, the transition from face-to-face to distance learning could take place smoothly. Decision on school closures can come abruptly, and in a stressful situation, teachers do not have the time or patience to spend their time rethinking the whole curriculum (Gordon et al., 2010). If the schools can provide their teachers and students with the necessary technical equipment (e.g., headphones, iPads), and if there is IT-support available when needed, fewer problems and less inequalities (e.g., due to the financial situation of students' families) are likely to occur.

With these recommendations in mind, this subchapter presents findings of some recently published articles on distance education in the context of the COVID-19 pandemic. This literature gives a brief insight into practical arrangements for, challenges with, attitudes towards and engagement in distance learning around the world.

3.4.1. Distance education solutions during the COVID-19 school closures

The COVID-19 pandemic outbreak led to school closures all over the world. In each country, distance learning was organised in slightly different ways, depending on which method best suited the educational situation in the region. For example, in Italy, distance learning was arranged through radio and television in the form of podcasts, instructional television channels, and television programs meant for educational purposes (Pellegrini & Maltinti, 2020). Relying on more traditional media was seen as an effective way to reduce the impact of digital divide, and related side effects, such

as low digital skills in families with low socioeconomic status. Even online lessons were arranged through video conferencing platforms, such as Microsoft Teams and Zoom. Email and Whatsapp were used to keep in touch with students, and to maintain good teacher-student -relationships. Which platforms and applications were used for teaching depended on which digital solutions teachers were familiar with. This led to variation between schools.

Basilaia and Kvavadze (2020), who studied distance learning via Google Meet in a private school in Georgia during the COVID-10 pandemic, noticed that the transition from in-person to distance instruction went rather smoothly. Most students (54.71%) participated in lessons on a computer, while rest of the students (44.84%) used their smart phones or tablets. Student attendance rate during the first week of distance learning was 98% for younger students and 94% for the older ones. Teachers took advantage of screen sharing, video broadcasting and audio streaming functions. To reduce passive screen time, the number of breaks was increased, and lesson durations shortened, except for those few occasions when technical problems hindered the lesson from starting in time.

In USA, transition to distance learning meant that school schedules became more flexible. Instead of trying to recreate the in-person school setting remotely, teachers were able to experiment with learning activities, give students more freedom to manage their learning, and design meaningful assignments. In the case study by Kaden (2020), a secondary school teacher mentioned using “diversified and individualised assessments” such as video reporting, science activities and digital storytelling to engage their students. The importance of constructive feedback, checking for understanding, orderly school district management, and teacher–student connection became highlighted. Kaden (2020) concluded that even if the distance education period gave rise to progressive learning solutions, one should not expect there to be a single model to meet all needs of diverse learners when teaching remotely.

3.4.2. Challenges with distance education during the COVID-19 school closures

Basilaia and Kvavadze (2020) conclude that even if there is still a number of issues to think through, the online learning format could prove to be useful even after the pandemic event, especially when teaching students with SEN. Unfortunately, during the COVID-19 school closures, the reality was rather the opposite: according to Fundaro (2020, as cited in Pellegrini & Maltinti, 2020), many Italian teachers and principals perceived differentiation through distance learning to be the greatest challenge of distance education. This implies that the exceptional situation had a particularly negative effect on students in vulnerable positions – including students with SEN (Fundaro, 2020, as cited in Pellegrini & Maltinti, 2020). Similar findings were presented by Kaden (2020): even if distance learning arrangements were planned with inclusivity in mind, these efforts were not enough to reach all disadvantaged students.

According to Pellegrini and Maltinti (2020), Italian teachers were not well enough prepared for the sudden transition from in-person instruction to distance education. Therefore, the need to adapt to the exceptional situation, to learn about online learning platforms and to create digital learning materials became highlighted (Caponata et al., 2020, as cited in Pellegrini & Maltinti, 2020). In general, organising distance learning required rethinking of customary practices, rules, and teaching methods (Pellegrini & Maltinti, 2020). The youngest of the students had a hard time working independently without continuous teacher presence and control, and consequently, need for parents' engagement and assistance increased. As a result, even the importance of home-school cooperation became highlighted.

However, tight contact between parents and teachers was not enough to solve all distance learning issues. One of the major issues during the COVID-19 outbreak was social inequality and related challenges in low socioeconomic status households (ISTAT, 2020, as cited in Pellegrini & Maltinti, 2020). Similar findings were presented by Beaunoyer et al. (2020) who described the COVID-19 outbreak as "the first large-scale event for which digital inequalities become a major factor of vulnerability" (p. 7). In low-income households, the levels of digital literacy and technical skills are often lower than average (Beaunoyer et al., 2020; Frenette et al., 2020; Pellegrini & Maltinti, 2020). Not everyone has the necessary personal devices or access to Internet. Those living in overcrowded houses lack a quiet study and working space away from

the presence of family members. Even inadequate technical infrastructure – mostly in remote areas – had a negative influence on the digital learning experience (Lassoued et al., 2020; Huber & Helm, 2020).

In general, the need to adapt to the new situation posed some serious challenges for teachers and students alike. In a recent Romanian study, Obrad (2020) found that there was a clear connection between work-related difficulties during the COVID-19 school closures and teacher stress. The respondents of the study found it demanding that they had to work harder in order to assume the use of new technologies, tools, and learning materials while dealing with uncertainty stemming from the pandemic event. Occupational stress, in turn, reduced their motivation and the degree of work engagement. Working at home only worsened this effect because sometimes family responsibilities took time off from work. Other issues raised by the pandemic event were worries for the health of loved ones, concerns regarding the incoming school year and student evaluation as well as emotional effects of social distancing. In general, changes and stress factors gave rise to negative emotions, such as despair.

Lassoued et al. (2020) studied distance education during the COVID-19 pandemic even in Algeria, Egypt, Palestine, and Iraq. They concluded that both professors and students were reluctant to engage in distance learning because they were more accustomed to the in-person instruction format. Students felt that they had a hard time finding motivation to study at distance, and that teacher presence and classroom interaction helped them to better understand the learning content. Some professors were fundamentally against remote education: compared to in-person instruction, distance learning was perceived to be less of a use. Lassoued et al. (2020) suppose that the negative attitudes stem from larger organisational issues, such as lack of training, adequate course materials and experience. These challenges combined with technical obstacles, shortage of adequate study and working spaces, data security concerns and digital inequalities as well as being unaccustomed to remote communication all increased dissatisfaction among professors and their students.

In their study, Huber and Helm (2020) investigated how transition to distance education affected the school situation in Germany, Austria, and Switzerland. They found that during the COVID-19 school closures, the degree of student commitment varied to a great extent. Some students did well, possibly because they were able to

manage their day, maintain a regular daily routine, exercise at home, and rise early enough. Other students reported putting only low effort into learning activities. In addition to the previously mentioned self-regulation skills, a factor that correlated positively with students' engagement in remote learning was regular teacher control over school tasks and assignments.

Huber and Helm (2020) also noticed that teachers with higher technical skills and better capacities for distance education were better at giving individual learning support for their students. There was a clear need for this type of personal guidance because the degree of stress among students was high – even higher than that among teachers. This can be explained by factors such as collegial support and teacher collaboration, which alleviated the emotional pressure and cognitive strain experienced by teachers. Students, who did not have such professional networks, found it difficult to plan their day, focus on studies and cope with exceptional arrangements. Even lack of personal devices and missing parental support were brough up.

Based on their findings, Huber and Helm (2020) hypothesise that a supportive school culture and collegial collaboration make it easier for teachers to cope with challenges related to distance education. Similar conclusions have been drawn by Obrad (2020). According to his study conducted in Romania, supportive work environment increased the resilience of teachers during the stressful COVID-19 distance education period. Particularly support from the school management was appreciated. Obrad (2020) also noticed that during the COVID-19 school closure period, urban schools on all levels of education did better than rural schools. The respondents in his study called for more government funding for overall modernisation of the Romanian education system, digitalisation in Romanian schools, and technology training for teachers.

4. Theoretical framework

This chapter first presents a relevant learning theory applicable to distance learning: the Community of Inquiry (CoI) framework theory by Garrison et al. (1999). After that, the Job Demand-Control (JDC) model (Karasek, 1979) and its extension Job Demand-Control-Support (JDCS) model (Johnson & Hall, 1988) are introduced. These give an insight into factors causing and relieving occupational stress and fatigue.

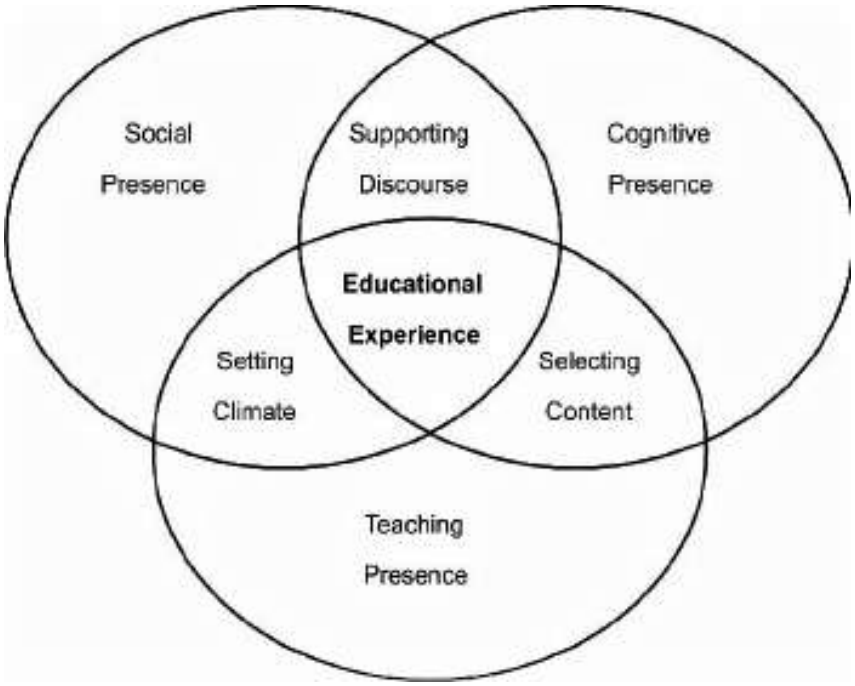
The above-mentioned theories were found during the literature search conducted between March and October 2020. These were included into the theoretical framework of this study because they resonate with both research questions: CoI framework theory (Garrison et al., 1999) is developed specifically for scrutinising online learning arrangements in practice, while the JDC and JDCS models can be used to analyse the intertwining of factors that define the level of learning, stress and coping in different work situations.

4.1. Community of Inquiry framework theory

A learning theory that can be applied in a distance learning context is the Community of Inquiry (CoI) framework by Garrison et al. (1999). Elements of this framework visualise the educational experience and related dynamics, and it was initially created as a tool for understanding educational transaction online and issues related to technology-mediated communication and learning experiences. The three overlapping types of presence presented in the model are social, cognitive, and teaching presence (see *Figure 1*).

Figure 1

The Community of Inquiry (CoI) framework as described by Garrison et al. (1999



For the learning experience to be successful students need to participate in the CoI through open communication, self-expression, and collaboration. A socially present student can add to the learning experience what is unique about them. Being cognitively present means exploring and exchanging information, identifying, and replacing eventual misinterpretations and connecting old ideas to new ones. Garrison et al. (1999) believe that the best possible learning experience is a result of active and strategical critical thinking processes that happen in an interactive manner through means of collaborative inquiry. However, there is still much to learn about how to combine critical in-depth thinking and creative interaction to support the learning process in online environments.

The purpose of teaching presence is to reach educational outcomes through direct instruction, building understanding, and instructional management (Garrison et al., 1999). The latter refers to a variety of practices, such as designing teaching methods and utilising learning materials. Teaching presence can be seen as a binding factor that both connects and supports cognitive and social presence. Teaching presence is a result of two elements: The first is the general design of the learning experience, which includes "the selection, organisation, and primary presentation of course content, as

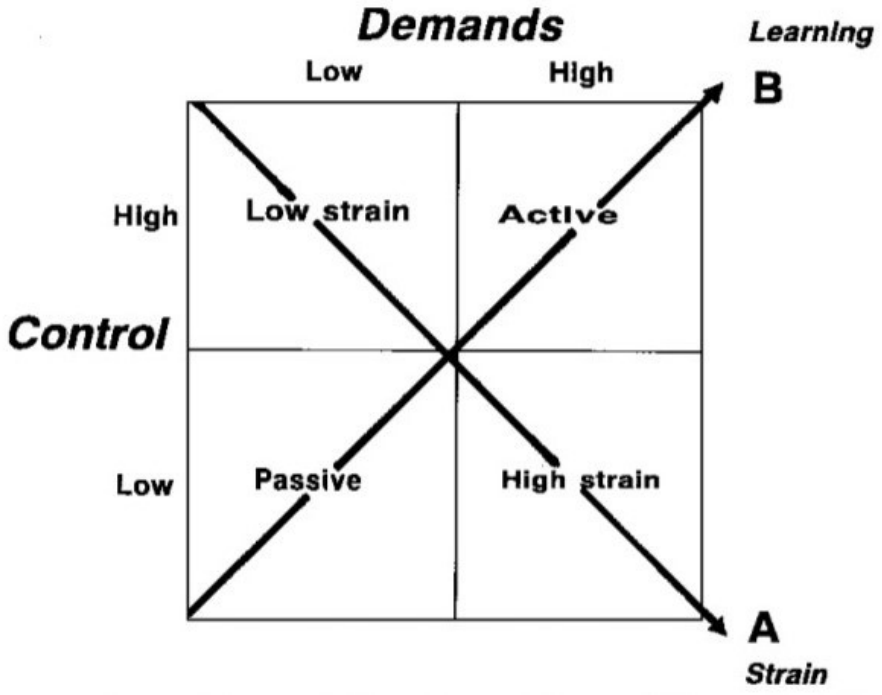
well as the design and development of learning activities and assessment" (Garrison et al., 1999, p. 90). The second element that Garrison et al. (1999) call for facilitation means sharing responsibility among the participants of the CoI. Working in an online environment does make it more difficult to establish teacher presence, especially if the learning situation is asynchronous with students participating in learning activities at different times. Teachers can improve the learning experience by facilitating discussion, regulating how much content is covered and making use of different group sizes and face-to-face communication possibilities.

4.2. Job Demand-Control (-Support) model

The Job Demand-Control (JDC) model, or the job strain model, as it is also called, was developed by Karasek (1979) to explain the origins of occupational stress. In this model, Karasek (1985) presented two workplace dimensions: job demands and job control. The former refers to qualities such as workload, time pressure, stress and conflicting demands, while the latter covers the sense of workplace autonomy, the level of skills and creativity needed on the job, and possibility to decide on and control one's work activities. Increasing demands lead to both increased strain and learning, whereas increased control fosters learning while reducing stress. Looking at the JDC model below (see *Figure 2*), it is possible to identify that the most ideal state for a worker to be at is a situation where both the level of control and demands are high. The greatest strain is experienced when work-related demands stay high while the level of control remains low.

Figure 2.

The Job Demand-Control model, adapted by Van der Doef and Maes (1999) from Karasek (1979)



Johnson and Hall (1988) expanded the JDC model with a third aspect, that is, the level of workplace social support. According to their Job Demand-Control-Support (JDCS) model, low support and isolation have detrimental effects on workplace wellbeing, while a supportive work environment can counteract stress and job strain caused by high demands combined with low control. The most stressful work situation is the so-called 'isostrain' where the worker has to manage a low-control/high-demand job either with low support or in total isolation. According to Van der Doef and Maes (1999), who have reviewed a great number of researches examining the JDC(S) model and psychological wellbeing, there seems to be a connection between high (iso)strain work and burnout, decreased job satisfaction and lowered general psychological well-being.

5. Method

In this part of the thesis, I will present the aim of research and research questions. The main principles of qualitative research and semi-structured interviews are introduced, after which the chapter proceeds to describe the research target group and execution of research. Data processing and analysis processes are briefly explained. At the end of this chapter, ethical considerations and the four-dimension criteria of trustworthiness in qualitative research are introduced and discussed regarding this study.

5.1. Aim of research and research questions

The aim of this research is to increase knowledge on how special education and special-educational support can be arranged at distace during crisis situations and to clarify what type of challenges SNTs might face when teaching and supporting students with SEN at distance.

To serve the purpose of the study, two research questions have been formulated:

1) What teaching and support arrangements for comprehensive school students with special-educational needs were made during the COVID-19 school closures in spring 2020?

2) What challenges did Finnish comprehensive school special needs teachers face during the COVID-19 distance education period in spring 2020?

The empirical data for this study have been collected through twelve semi-structured interviews. The interview questions mapped out Finnish comprehensive school special needs teachers' experiences of distance learning during the exceptional time period from mid-March to mid-May 2020, during which all schools in Finland were closed due to the coronavirus pandemic.

5.2. Qualitative research and data collection

This study is conducted as a qualitative research, meaning that it uses non-numerical data to understand and describe the research target in an analytical but still a descriptive manner (Renck Jalongo & Saracho, 2016). The qualitative research approach is focused more on the depth than breadth: individual variation in interpretations and perspectives is of great value as different views on a specific topic help to create a more multifaceted and realistic picture of the research target. The primary goal of this research is to learn more about the personal experiences of SNTs when teaching and supporting their students remotely, and for this purpose, qualitative research methods are best suited, since finding enough respondents to a survey could have been too great a challenge after such an exceptional semester. In addition, using quantitative research methods could give an overly superficial picture of this complex time period. It would not feel appropriate to turn the feelings and experiences of SNTs into numbers, especially when the intention is to give these teachers a voice.

The research data are collected through semi-structured interviews, which implies that an appropriate sample size for this study is between 5 and 25 respondents (Creswell, 2013). Renck Jalongo and Saracho (2016) describe semi-structured interview as a research tool where a list of questions is used to structure the interview. However, this interview guide is not absolute. Rather, it covers a series of important themes within which the interviewer may ask additional questions based on the answers of the respondent (Patton, 2015). Using an interview guide helps the interviewer to systematise a number of interviews and keep the focus on certain themes while still leaving room for individual viewpoints and personal experiences. The interview guide used in this research can be found at the end of the thesis (see *Appendix 2*).

To be able to ask the right questions, the interviewer needs to listen carefully and ask the respondents to specify and clarify whenever needed (Renck Jalongo & Saracho, 2016). A moment's silence lets the informant reflect on the question, and that is why it is strongly recommended to let the informants take their time before answering

(Dalen, 2015). When the respondents may structure their thoughts in peace, the quality and depth of the answers is likely to increase.

When starting an interview, the researcher is to introduce themselves, why the interview is conducted, what will happen with the material and when the study will be published (Dalen, 2015). It is important to make sure that the informant feels safe and relaxed, especially if the interview covers sensitive and difficult themes. During the interview, the researcher should be calm and reassuring, and show their genuine respect and interest by short comments, eye contact and other forms of non-verbal communication. After the finished interview, some time should be reserved for a concluding discussion with the informant. In this way, the researcher ensures that the respondent leaves the interview with a positive feeling.

5.3. Target group

The target group for this research are Finnish comprehensive school SNTs who have had to resort to distance instruction during the COVID-19 pandemic school closures. To find respondents working as comprehensive school SNTs, a research invitation letter (see *Appendix 1*) was published in both national languages of Finland, Finnish and Swedish, in two Facebook groups meant for Finnish SNTs (*Erkkamaikat* and *Svenskfinlands specialpedagogiska förening r.f).* It is noteworthy that while this study was conducted, Finland was still in a state of emergency due to the spread of the coronavirus. Thus, it was particularly important that the respondents were volunteers with enough energy to answer the questions of the interviewer.

A total of twelve Finnish comprehensive school SNTs who had resorted to distance instruction during the school closure period answered to the research invitation, two of whom worked part-time and ten full-time. Two of the SNTs with full-time employment contract taught a very small group of students, one was an itinerant SNT who worked in two schools, and the rest were responsible for a larger number of students. The respondents worked both with lower and higher school grades depending on the job position they were hired to. The youngest of the students taught by the

informants were in pre-school (one year before the official start of basic education), while the oldest were on the brick of obtaining their graduation certificate in grade 9.

The respondents came from the Southern, Southwestern and Western parts of Finland. Regarding school sizes, there were great differences: the smallest village school had fewer than 100 students, while the largest schools in the metropolitan area had over 800 students. The general job descriptions of the respondents varied depending on the number of students they worked with, practices and policies within each school and municipality, as well as the needs and support tiers of students. Eight respondents told having students in all support tiers. Three respondents had no students in the 1st tier, and one respondent told that they had no 3rd tier students. A majority of the respondents experienced that especially students in the 2nd tier needed more special-educational support than usual.

During the COVID-19 school closure period, the informants spent most of their teaching hours teaching mathematics and languages. Five of the respondents mentioned teaching "all subjects according to need", while a few told they were also responsible for general teaching in practical subjects, such as physical education or home economics. Five informants said they had taught several subjects simultaneously, for example, by using a history book to practice reading comprehension with a student, or by going through grammar issues when a student was writing a biology essay.

5.4. Data collection process

The data collection process took place in May, June, and August 2020. Volunteer SNTs who had seen my research invitation letter online contacted me by email and informed me about their willingness to participate in the study. After confirming that the volunteers met the interview criteria (i.e., that the volunteers worked in comprehensive school and had resorted to distance learning during the COVID-19 pandemic event) we agreed on an appropriate interview time. One volunteer SNT did not meet the interview criteria, since they had taught a small group of students with

SEN in person throughout the whole school closure period and was therefore turned down for study participation.

The semi-structured interviews were conducted both in Finnish and Swedish via video communication services Skype, Zoom and Google Meet depending on the preferences of each respondent. The interview questions written in both Finnish and Swedish (see *Appendix 2*) were used as a base for the interview while follow-up questions were asked according to the answers of each respondent. When designing the interview guide, I used my research questions as a baseline. The first interview section covers background information, the second focuses on distance learning and support arrangements for students with SEN, and the third covers challenges faced by SNTs during the distance learning period. Before moving on to the final questions and concluding statements, I asked some questions about the positive aspects of distance education. Data related to this issue were not included in this study as this thesis would otherwise have become too long and extensive.

Since it is recommended to record the interviews to ensure the accuracy of the answers (Brink, 1993; Dalen, 2015), I chose to use two different recording applications to minimise the negative consequences of possible technical problems. In accordance with the recommendation of Brink (1993), the interviews were conducted in a quiet and private room where I could fully concentrate on the answers of the respondents with no one hearing or interrupting our discussion.

Dalen (2015) points out that in a qualitative interview study, it is highly recommended to do one or several pilot interviews before starting with the official interviews. Pilot interview aids the design of later interviews, revealing if the interview questions are well formulated and helping the researcher to notice potential flaws in their interview technique. Based on these findings, a modified version of the interview guide can be created. I held one pilot interview at the end of May, after which I made some small changes to my interview guide: I rethought a few word choices and added a couple of extra questions that I had asked spontaneously during the pilot interview with good results. In addition, I took some time to reflect over my own behaviour in the interview situation to understand how I could improve my interview techniques. Since this initial interview attempt captured versatile and high-quality data, I decided to include the pilot interview in the study results.

I started the interviews by introducing myself, describing the aim of the research, and asking whether the respondent had any questions. After that I reminded that participating in the study is voluntary and that the interviewee has the right to skip any question if they wish to do so. I also emphasised that if the interviewee later wants to ask something or give some extra details related to their prior answers, they can always do so by calling or emailing me after the interview. Before starting the interview, I made sure to notify that our discussion will be recorded and that the recordings will be deleted after the transcription is made.

During the interview, I proceeded thematically, varying the order of the pre-selected questions according to the course of the discussion. I avoided expressing my own views and encouraged the interviewee to express their own perspective on the events of the distance education period. If the interviewee gave a superficial or short answer to a certain question, I asked them to clarify or give me a practical real-life example. However, if the interviewee clearly found it difficult to answer, I did not put more pressure on them to ensure that the interviewee does not feel uncomfortable. I did my best to establish an overall positive atmosphere during the interviews: my goal was to be considerate and tactful, to give enough space for the thoughts of the respondents, and to be observant of their general mood.

At the end of the interview, I asked if the interviewee had anything to add. Most wanted to mention some lessons learned during the distance education period. I made sure to end the interview on a positive note, emphasising the importance of getting an insight into the personal experiences of the respondents, and thanking them for the effort.

5.5. Data processing and analysis of data

The data material of this study, collected through semi-structured interviews, was analysed thematically. In this chapter, the data processing procedures are briefly explained. After this, the key principles of thematic analysis are presented. Lastly, the chapter moves on to describe how the thematic analysis process of this study was implemented.

5.5.1. Data processing

According to Kvale et al. (2009), the process of transcribing can be conducted in many ways. There is no uniform template for how the transcription should be performed and what should be transcribed. The researcher decides which parts of the interview recording are converted to text, and how detailed the transcription is to be. In general, transcribing is a great method to familiarise with the data content and make the interview answers more accessible. It still has its limitations: Interviews should be transcribed directly after the interview, which is not always possible. It is time-consuming to write down everything that has been said. In addition, some non-verbal cues, such as tone of voice and sarcasm, cannot be converted to text.

Transcribing is practical for while converting spoken word to text, all personal data can be simultaneously pseudonymised (Office of the Data Protection Ombudsman, [n.d.]). This refers to the process of processing the transcribed interview answers in a way that they cannot be traced back to the respondents without additional information, such as contact details. The researcher is obliged to preserve all additional information so that no third party is able to access them.

As recommended by Kvale et al. (2009), I went through the process of transcription directly after each interview. First, I listened through the recording while writing down everything that had been said, after which I relistened the recording to double-check that I had not made any mistakes in my writing. During the transcription process, I changed all gendered pronouns to gender-neutral ones. I also deidentified all data by removing place names and other information. This way I guaranteed that data cannot be connected with the interviewee, their students, or their workplace. To capture the true meaning of the data, I used verbatim transcription (Stuckey, 2014), meaning that I wrote down every single word from the audio files as well as the non-verbal expressions, such as inflections, pauses, filler words and laughter. For the convenience of the reader, I later turned the colloquial and dialectal expressions into a more universal form, and the grammatically incorrect sentences into grammatically correct ones. At this point, the transcribed data covered a total of 131 pages (*Times New*

Roman, 12; 1,5 space). Instead of translating interviews as wholes, I chose the parts that initially seemed relevant for my research and translated those from Swedish and Finnish to English. To ensure that I was using adequate terms, I took advantage of MOT Dictionaries and the glossary of the Finnish National Agency for Education ([n.d. -b]).

5.5.2. Thematic analysis

Thematic analysis is a research tool that can be used to organise and describe rich qualitative data and identify those aspects that occur frequently or otherwise play great significance (Braun & Clarke, 2006). Thematic analysis can be helpful when trying to better understand reality or otherwise explain it. Throughout the analysing process, the scope of thematic analysis varies, so that attention is paid both to general picture and smaller data extracts. Instead of starting the writing process only after finishing the analysis, these two take place simultaneously. As thematic analysis is well applicable for analysing qualitative data sets, such as interview transcripts, it was chosen as the analysing method for this study.

As a research tool, thematic analysis is flexible and multifunctional, but its use requires the researcher to take a stand on certain issues which outline the theoretical position of the analysis (Braun & Clarke, 2006). My intension is to describe the data set comprehensively in a way that captures its essence. This implies that the themes are not analysed in great detail, but instead, a rich overview of the data is presented. The analysis progresses from description to interpretation, meaning that the themes are developed without going beyond the semantic data content, with no presumptions or explanatory theories in mind. This kind of analysis where the researcher is not trying to look for what lies beneath the explicit data content has a semantic approach (Braun & Clarke, 2006).

Thematic analysis can be either inductive or deductive, meaning that the analysis process can either be guided by the data or by the interests of the researcher (Braun & Clarke, 2006). In this study, the form of analysis is inductive, or data-driven, meaning

that there is no need for hypothesis before the data collection process begins (Patton, 2015). The research results are analysed as they are, with no specific theories, previous knowledge or prior assumptions guiding the eye of the researcher when looking for meaningful patterns across the data set. The data set is observed open-mindedly, so that it becomes possible to identify meaningful themes and general patterns, as well as inter-relationships along these. Moreover, the researcher does not attempt to place the emerging themes in some sociocultural, structural, or theoretical framework, which implies that the thematic analysis in this study also has a realist approach (Braun & Clarke, 2006). Following the guidelines of Braun and Clarke (2006), thematic analysis for this study progressed in six stages, as described below:

First, the researcher should familiarise with the collected data, transcribe it, and start writing down useful points and potential codes to return to at a later point (Braun & Clarke, 2006). An in-detail description of this phase of analysis can be found in the previous subchapter. While processing the data, I also sketched a few preliminary codes to use as a basis in stage two. These codes were tightly related to the two research questions.

The second stage of thematic analysis involves systematic coding of those parts of the data that seem relevant (Braun & Clarke, 2006). This is done across the entire data set. After identifying seemingly meaningful features from the data, I grouped these basic units of information, producing some specific codes. While doing this, I extracted some interesting citations from the data set, and pieced them together with matching codes to depict their initial meaning more closely. The identified codes were to some extent defined by the two research questions, which meant that those codes that did not directly answer to the research question, were discarded already at this point.

At the third stage of thematic analysis, collected codes are grouped into prospective themes (Braun & Clarke, 2006). At this point, it is important to define what counts as a theme and on what basis these themes are chosen. To help with this step, I compiled simple spreadsheet tables that helped me outline the potential themes and related codes. The themes within the first research question were related to special-educational teaching and support arrangements at distance. Thus, emphasis was placed on distance learning practicalities, such as tools for learning, distance learning practices and distance support measures. When analysing the data set regarding the second research

question, I paid attention to the topics that were brought up by several respondents, and topics that were discussed in depth, even if only by a single respondent. I also looked for topics that somehow stood out from the research data and whether these were a part of a larger theme. At the end of the third stage, I had formed a SNT of main themes with sub-themes and illustrative descriptions.

After this, I moved on to the fourth stage, which included further examination and evaluation of the themes (Braun & Clarke, 2006). The result of this fourth step in the analysis is a well-functioning thematic grouping that accurately captures the essence of the data set as a whole. For my part, stage four analysis involved combining those codes – now sub-themes of the larger themes – that were very similar in content and meaning. I also removed some codes altogether because they did not complement their respective themes in a meaningful way or were not relevant enough to the overall picture.

Stage five in thematic analysis is about getting to the core of each theme and naming them accordingly (Braun & Clarke, 2006). At this point, the coded and thematised research material was still very detailed, making it difficult to distinguish the principal elements of the data. To find the key features, I identified which themes could be combined into larger entities, and which groupings should be rearranged altogether. This way, I managed to decrease the complexity of my themes. As a help during this 'define and refine' stage, as called by Braun & Clarke (2006), I used figures that made it easy to identify patterns that earlier gone unnoticed. Visualising the thematised research material forced me to question whether the themes and sub-themes were relevant and correctly organised. It also helped me discover relationships and spot overlap between groupings. When I was happy with the big picture, I wrote a brief analytical summary of each individual theme minding the sub-themes and other necessary details within each theme.

After structuring the themes into hierarchies that provide a comprehensive answer to research questions and conducting detailed theme-specific analyses, it is time to move to the sixth and final stage of thematic analysis (Braun & Clarke, 2006). At this stage, the themes and their sub-themes are analysed for the final time, after which they are brought together with theories and previous research. On the basis of this complete

whole, a report is prepared. The results of this final stage of thematic analysis are reported in chapter 5.

5.6. Research quality and ethical considerations

In this chapter, standards for good scientific practice and ethical research are discussed. First, main principles of ethical research are presented along with the four-dimension criteria of trustworthiness. After this, ethical and quality considerations in the research design are described. The chapter ends with a reflection on generalisability of the results.

5.6.1. Main principles of ethical research

According to the Responsible Research website (2018), created by the Committee for Public Information in Finland and the Finnish National Board on Research Integrity, all scientific activities are based on responsible communication. In practice, this means promoting transparency at all stages of research. Researchers shall not be biased or distort the results in any way. Other researchers are to receive recognition for their work, meaning that the writer of a scientific text should refrain from using secondary sources. References to the original sources should be presented systematically and correctly. Principles for research planning, implementation, and publication should be in accordance with the requirements of the research community. However, the responsibility for following ethical guidelines for good research practice lies primarily within the researcher themselves.

Researchers should always follow the standards of ethical research and good scientific practice while minding the factors that pose a threat to research quality (Responsible Research, 2018). According to Brink (1993), these threats can stem from the researcher themselves, the informants, the social context, or the data collection and analysis process. Being aware of and prepared for these risks, a mindful researcher can reduce

their impact on the research process. In practice this means, for example, taking care of privacy of the informants by conducting the interviews in a quiet and private location where distractions are unlikely to occur.

5.6.2. Four-dimension criteria to assess trustworthiness of scientific research

Traditional scientific research criteria include reliability and validity (Litwin, 1995). A study is considered to have high reliability if it can be reconducted under same circumstances and using same methods so that even the results are consistent with the original one. The level of validity gives the accuracy of the measure telling how well the research results measure what they are intended to measure. By closely reviewing the literature, carefully selecting the research methods and precisely organising and analysing the results the researcher can ensure that validity of the research is assessed. In summary, reliable results are not always valid whereas valid results are automatically also reliable (Guba & Lincold, 1985).

However, these criteria are more suitable for quantitative research design while causing qualitative studies to seem less serious, even unheeded (Patton, 2015). Critics of traditional scientific research criteria – often supporters of the constructivist line of thought – propose that qualitative and quantitative research differ from one another in so many ways that it would be unreasonable to view these research methods from completely similar starting points. For these reasons Lincoln and Guba (1986) developed a new type of standards to judge the trustworthiness of qualitative research. The four quality criteria – credibility, transferability, dependability, and confirmability – are parallel to the traditional research criteria (Lincoln & Guba, 1989).

The first criterion, *credibility,* is equivalent to the concept of internal validity (Lincoln & Guba, 1986). It describes the extent to which the research results substitute reality. High credibility means that respondents' descriptions of their situation match with the researcher's representation of the data set. It should be kept in mind that respondents might want to withhold information or bend the truth to show themselves in a good light (Brink, 1993). Informants who view the researcher to be in an equal position with

them are less likely to try to please the researcher in this way. Thus, credibility of qualitative research is likely to increase if the researcher manages to bridge the "status gap" between themselves and the respondents. Furthermore, the researcher can further enhance credibility by familiarising with literature on the research topic to better understand the phenomenon that is being researched (Shenton, 2004). Evaluation of work through peer-review is also recommended.

Transferability is analogical to external validity (Lincoln & Guba, 1986). The researcher is responsible for enhancing transferability by describing the research process, context, and target group thoroughly and in detail so that readers can judge the extent to which the results are similar to or otherwise transferable to other cases and settings. According to Smith (2018), transferability represents one variant of a larger concept, generalisability. Generalisability of qualitative research is described in detail in chapter 5.2.3.

The third criterion for trustworthiness is called *dependability* (Lincoln & Guba, 1986). It is parallel to the concept of reliability, which is a matter of consistency. Dependable data provides a correct illustration of the phenomenon that is studied. Neither are the results caused by measurement or random errors, which can be ensured by looking at the documentation throughout the whole research process. The data collection and analysis need to be as accurate and precisely as possible (Brink, 1993). This means that interviews must be well preserved, analysed in detail, and critically reviewed. Elaborating classification systems reduces the risk of missing important details or overrepresenting certain phenomena at the expense of others. Even the risk of sampling bias should be considered. Sometimes the informants are not representative of the whole target group, so making unverified assumptions, rushing to conclusions, or making false judgements should be avoided.

The fourth and last criterion is *confirmability*, equivalent to objectivity (Lincoln & Guba, 1986). A high level of confirmability gives that the presented research results can be distinctly linked to the data, and that all interpretations stem logically from this very same data set. Neither the findings nor related interpretations are subjective to the researcher, but instead can be confirmed by others as well. If the researcher does not have the ability to relate objectively to the research topic and the informants, confirmability of the study might suffer (Shenton, 2004). To guarantee the quality of

qualitative research, the researcher needs to be aware of potential bias and actively strive to keep their assumptions and stereotypes from affecting the research process. Ways to increase the degree of confirmability include, among others, documentation of interviews and careful examination of the data.

5.6.3. Ethical and quality considerations in the research design

The basics of research ethics have been taken into account already when designing the research plan for this study, and kept in mind throughout the data collection and analysis process: Participating was voluntary, which was expressed explicitly both in the research invitation letter, via mail and in person just before the interview. Similarly, the fact that all interviews were recorded was expressed several times. The informants were made aware of their rights: they could leave the interview whenever they want and skip any question they want for whatever reason. Special attention was paid to data protection and privacy of the respondents: Everything discussed during the interviews was and still is confidential. All information that could be traced back to the respondents was turned anonymous. Research material was securely archived. The original data was destroyed after the process of transcription is over.

As described previously, one way to increase credibility in qualitative research is to bridge the perceived mental "status gap" between the researcher and the respondents (Brink, 1993). To give a friendly and trustworthy impression of myself to the informants, I chose to start every interview by telling more about myself and my research. I also shared my contact information to all informants in case they wanted to contact me later. Later, when conducting the thematic analysis and writing the final report, I tried to reconstruct the experiences of the respondents to text as truthfully as possible. To ensure that the core message was conveyed to the reader, I chose to use relevant quotations to demonstrate the initial data and therefore validate my findings. This gives the reader the possibility to judge the quality of this study in regard to the four-dimension criteria of trustworthiness in scientific research (Lincoln & Guba, 1986).

In order to protect the informants from my potential biases and unconscious presuppositions, I designed my research questions to be as neutral, specific and objective as possible, and tried to present them so that the respondents would not be led to answer in a certain way. Special attention was paid to the word choices. During the interview, I avoided giving any prompts to the participating subjects and made sure not to steer the discussion as if I were looking for certain outcomes. When necessary, I asked the participating subjects for closer descriptions, clarifications, and practical real-life examples instead of making my own assumptions and interpretations of their situation during the COVID-19 pandemic. This increases the levels of confirmability and dependability (Lincoln & Guba, 1986).

To secure the dependability, credibility, transferability, and confirmability (Lincoln & Guba, 1986) during the data collection and analysis process, a variety of additional measures were taken: I recorded the interviews, wrote exact data transcriptions, used well-structured filing and classification systems, and analysed the data critically, minding both smaller details and the bigger picture. I have also done my best to detect potential contradictions and to take notice of the variation in interview answers, and to avoid under- or overemphasising certain parts of the data to the detriment of others. These measures make it easier for readers to judge if my findings are objective, valid, reliable, and transferable to other settings as well.

5.6.4. Generalisability of the results

The extent to which findings of a study can be generalised to other settings is dependent on the number of similarities in factors such as the personal characteristics of the respondents, time, place, and the greater social and interpersonal context (Leung, 2015). In qualitative research, the concept generalisability is a debated topic, since generalisability is often considered to be statistical-probabilistic by its nature – a feature which qualitative research cannot provide. Because of this, it is good to investigate this concept in more detail. Smith (2018) offers an alternative perspective on generalisability, saying that there are several types of generalisability that add to our knowledge in different ways. For a study to be of high quality, it does not have to

fill the criteria for statistical-probabilistic generalisability, since it can still meet the standards for naturalistic generalisability, transferability, and/or analytical generalisability (Smith, 2018).

Naturalistic generalisability is defined on the grounds of whether the reader can personally relate to the results (Smith, 2018). *Analytical generalisability* has to do with concepts and theories that can be developed and supported on the grounds of qualitative research. Even though these generalisations are fluid and mutable, they still explain the reality, increase our understanding of real-world phenomena, and offer solutions to different challenges. The matter of *transferability* (see *5.6.2. Four-dimension criteria to assess trustworthiness of scientific research*). comes down to the question "To what extent are these results transferable to other settings?" (Smith, 2018, pp. 140–141). If the challenges described by informants resemble those of the reader's, there is a possibility that even solutions to these challenges are similar. The term *generativity* can be used to describe circumstances where research encourages readers to act on the basis of the scientific information and ideas this information has generated (Smith, 2018).

The aim of this study is not to achieve statistical-probabilistic generalisability but rather meet the criteria for naturalistic generalisability, transferability, and analytical generalisability. According to Smith (2018), this can be achieved by offering contextual details, rich descriptions of the experiences of the informants and theoretical frames of reference that help readers to connect the research findings to the "real life". This study meets all these criteria: The research data presents a great number of relatable experiences, which makes it possible for the reader to find themselves in the results (see *naturalistic generalisability*). Being able to relate to the experiences of others can give new insights into one's own situation, which can be personally meaningful. From a more analytical perspective, this study can function as a baseline for new understanding of the situation of SNTs during school closures, distance education in Finland, exceptional circumstances, and special-educational needs (see *analytical generalisability*). From the viewpoint of transferability, the findings in this study may prove useful if and when the next pandemic wave strikes. Would there be another exceptional situation, the results of this study could turn out to be helpful as they can be used, for example, to predict what challenges SNTs are

likely to face. The time will tell if this study proves to be useful in terms of generativity, i.e., whether these findings will encourage stakeholders to make progress in the field of distance learning, with a special attention to the students with SEN.

6. Results

The following chapter presents the results of this study. The two research questions are answered in order, starting with the first question presented in the first subchapter, and moving on to the second research question, reported in the second subchapter. Some relevant citations from the data set are provided within the subchapters to better capture the essence of themes identified through thematic analysis. These citations are marked with italics.

6.1. Special-educational teaching and support arrangements during the COVID-19 distance learning period in spring 2020

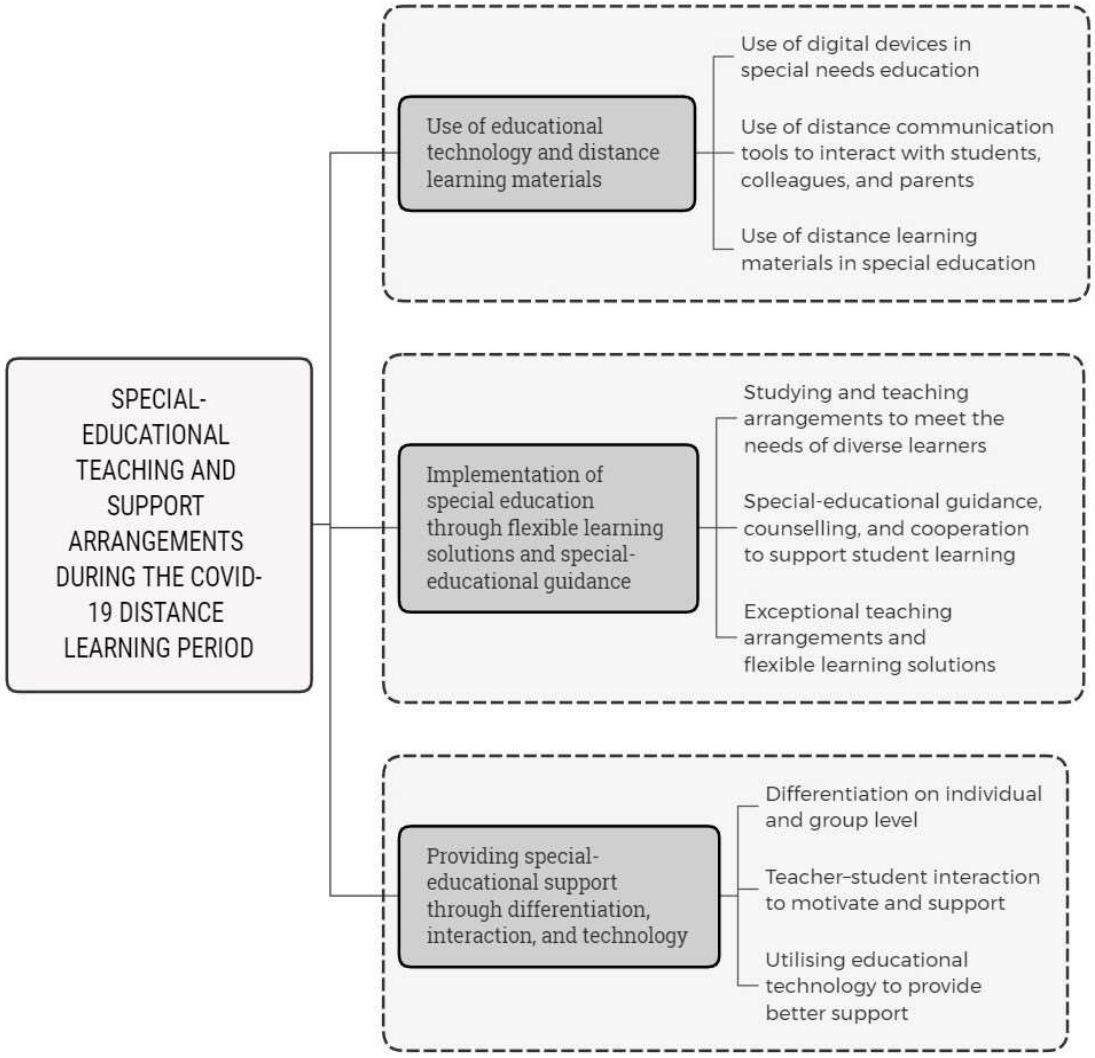
This chapter presents the results to the first research question. The thematic analysis revealed three main themes into which special-educational teaching and support arrangements during the COVID-19 distance period can be divided:

6.1.1. Use of educational technology and distance learning materials
6.1.2. Implementation of special education through flexible learning solutions and special-educational guidance
6.1.3. Providing special-educational support through differentiation, interaction, and technology

Each main theme has several sub-themes. Figure 3 visualises both main themes and related sub-themes that answer to the first research question.

Figure 3

Special-educational teaching and support arrangements during the COVID-19 distance learning period



Henceforth, this chapter separates into three subchapters that further present the results in accordance with the main themes.

6.1.1. Use of educational technology and distance learning materials

This chapter presents the first main theme of the first research question, describing the multitude of hardware, software, and learning materials that were used by SNTs during the COVID-19 school closures. The chapter consists of three sub-themes:

i. *Use of digital devices in special education*
ii. *Use of distance communication tools to interact with students, colleagues, and parents*
iii. *Use of distance learning materials in special education*

i. Use of digital devices in special education. During the COVID-19 distance education period, those students who did not have their own computers or tablets had the possibility to borrow a device from school. However, some students tried to survive distance learning only with the help of their smart phones. One respondent said: "*Comparing to how others had it, our school was lucky: We managed to hand out a computer to everyone within a week. Some also had a tablet, so they used two devices*." The respondents mainly used their own phones to maintain contact with their students: only three of the respondents had received a work phone from school. Computers were provided to everyone. Several informants noted having used both their work and personal computer simultaneously to manage multiple platforms at once. A few respondents mentioned that their colleagues had borrowed some additional equipment from school, such as document cameras, even though these devices were not intended for general use of school personnel: *"Some teachers managed to borrow video cameras from school for holding distance classes, but I didn't make it in time. Borrowing equipment was soon prohibited."*

ii. Use of distance communication tools to interact with students, colleagues, and parents. Communication during the distance learning period took place on several platforms and via multitude of channels. For distance learning and meetings, the respondents used either Google platforms, Office 365 services or Zoom. Even Whatsapp, Messenger and Slack were used to maintain regular contact to students, parents, and colleagues. One of the respondents had noticed that tight contact was especially important for students with SEN: *"It's a big deal for students to not to get a reply right away – After all, in contact teaching, they can just immediately go and ask the teacher in person."*

The respondents found that different groups of people favoured different means of communication: With parents, messages in Wilma Parental Portal and regular phone calls worked best. Students preferred chat rooms and messaging. Video and phone calls caused many to feel uncomfortable, especially at the beginning, but this early clumsiness dissipated as the distance period continued.

> *"I wish students had been bolder when answering to phone or taking a video call, but they preferred chat and messenger. I was in contact with my students several times a day without seeing their face or hearing their voice a single time."*

Communication with colleagues was conducted via phone calls, online video conferencing, messages, and email. Some teachers – both respondents in this study and their colleagues – gave out their personal phone number so that urgent matters could be handled more effectively even at a short notice. Principals were mentioned to have an important role in information distribution, decision-making, and strategic direction of their school.

iii. Use of distance learning materials for special education. Even when studying remotely, schoolbooks were used to a great extent. Checking answers was carried out, for example, by having the student photograph the completed assignments and sending them to SET: *"Students did all their exercises on paper, took photos and sent them to me"*, explained one of the respondents. Some informants converted paper material into a digital format to make it easier for students to complete the exercises. Ready-made learning materials were found, for example, from Facebook teacher groups, school-specific internal databases, and on the websites of Finnish publishing companies: "*Tips and advice could be found everywhere. Like in Facebook teacher groups, those were just packed with material. I've saved so many links."* A few respondents mentioned using Collaborative education tool Ville that can be used to construct and hold exams. In addition, the informants used privately created educational websites such as Matteva, educational applications such as Showbie and learning platforms such as Itslearning as virtual learning tools. One respondent described their experience: "*The learning program compiled statistics on the school performance of my students and created diagrams of the results, which I sent to parents to show them how their child was doing.*"

The informants made use of technology by recording oral exercises, taking digital notes, using slideshows to demonstrate their teaching, co-editing text documents in real-time with their students and creating statistics over the school performance and test results of the students. *"Cloud services are practical in terms of differentiation: I can create and share an exercise to a student, follow in real-time what they are doing, and easily edit the document if needed"*, advised one of the respondents. The lack of a fixed classroom environment and looser daily structure made it possible to experiment with new types of school assignments. In practice this meant, for example, utilising video format: *"I used ready-made e-materials and animations to demonstrate mathematics."*

6.1.2. Implementation of special education through flexible learning solutions and special-educational guidance

The second main theme of the first research question described in this chapter outlines the special education practices implemented by the respondents during the COVID-19 school closures. The three sub-themes this chapter is divided into are:

i. *Studying and teaching arrangements to meet the needs of diverse learners*
ii. *Special-educational guidance, counselling, and cooperation to support student learning*
iii. *Exceptional teaching arrangements and flexible learning solutions*

i. Studying and teaching arrangements to meet the needs of diverse learners. Just as before the school closures, during the COVID-19 distance education period, the respondents met some of their students at regular intervals, while others only occasionally when a specific need emerged. The purpose of special education was to catch the students who could not keep up with their peers. With the youngest of the students, teaching focused mainly on literacy, numeracy, and language learning. The older the students, the more SNTs focused on counselling and facilitating self-directed learning. Special-educational measures did not differ from those in contact instruction, but their importance became highlighted. The transition from contact to distance

learning was challenging for many students with SEN which further increased the need for the contribution of SNTs. One SNT said: *"We did the most difficult tasks on the phone – with one student, that meant all the exercises, because they have such difficulties with concentrating that nothing worked remotely for them."* Another SNT provided a careful description of how literacy training for students with SEN looked like at distance:

> *"I told this student that we are going to practice with fairy tale cards. 'That will not work', they said. 'Yes it will', I alleged, showing them the fairy tale cards: 'These are your cards and here are my cards. I do not see yours. Now look at mine, which card do you want to start with?'. And they could say: 'The one on the far right'. 'Your right?', I asked. 'Yes, my right', they answered. 'So, you want to start with this one?', I verified, and they said 'Yes', so I asked: 'Well, what can you tell me about this card?'. That's how it went."*

The basic rule was that during the distance education period, students in the 3rd tier had the right to come to school to receive special education. However, the support tier did not always give a true picture of the support need. Therefore, those students who could not cope with schoolwork remotely were allowed to come to school to do assignments together with an adult. One of the respondents described the school situation as follows:

> *"We had to set up a contact teaching group. At its worst, there were over 20 students working in small groups, all divided into different classes. Think about it: 4 contact teaching lessons is only 240 minutes in practice, and when there are 24 students, that means I can offer ten minutes of support per student."*

Routines, teacher presence and external control motivated students to focus on their schoolwork and gave them some well-needed structure. Small group contact teaching also had a well-being function: when the respondents met their students in person, they got a better understanding of the overall situation and level of coping of the students. The experiences of SNTs varied. *"We made sure that students managed to login, found their assignments, and offered them a quiet and controlled place where to do those assignments. Arranging additional support was difficult both in person and at distance"*, told one of SNTs. Despite the lack of sufficient personnel resources, the importance of in-person instruction was stressed by several informants. *"By arranging contact teaching for those in need, we have saved many",* announced one of them.

ii. Special-educational guidance, counselling, and cooperation to support student learning. During the COVID-19 distance education period, collegial consultation between SNTs and their colleagues became less spontaneous as quick in-person encounters throughout the school day went missing. Still, classroom and subject teachers were in need of consultation by SNTs, collegial support as well as new educational ideas from a special-pedagogical perspective. One of SNTs said: *"Usually classroom teachers first asked if I could do this and that. I had to answer that I have quite a few students and quite little time. Then we discussed what the teachers themselves could do instead."* The older students with SEN, for their part, needed the guidance and assistance of SNTs to make sense of the distance education arrangements, to develop better remote learning techniques and to identify and internalise the key concepts in different subject matters. To maintain a good cooperative and consultative contact even at distance, the informants offered their help to both teachers and students ever more actively so that those in need could benefit from the expertise of SNTs: *"I was added in all digital classrooms of all classes, so I saw all the assignments. I could edit them or add my own exercises when needed. And I could see what the students should be doing and help accordingly after quickly reading through the daily materials",* explained one of the informants. In addition, SNTs monitored student progress and attendance more carefully than in contact education to make certain no student was left behind their peers: *"Teachers got worried when their students skipped multiple classes in a row and asked if I knew what they could do."*

Even after shifting to distance learning, all respondents still had their "designated" students with whom they worked on weekly or daily basis. Regular contact with these students was maintained with, for example, morning and/or afternoon calls during which SNT and their student went through the daily schedule, difficult exercises, and complex assignment instructions. One respondent explained that they used phone calls mainly to catch up with students: *"I called them every morning and we went through the daily program together. I made sure they knew where to find everything and where to click and so on."* Another SNT made sure their designated students got out of bed in time: *"Every morning I sent a wake-up message to all my students – a song, for example, or a text in the sense of 'Are you awake? Lessons are starting! Welcome to school!'."* Since there were many practical issues to solve, the importance of collegial

cooperation as well as home–school connection became in many cases highlighted. According to the three-tiered support model, special-educational support is to be provided at both individual and group level. Transition to distance learning meant that even special-educational measures had to be rethought. The aim was that even classroom and subject teachers could meet the needs of diverse learners to the widest extent possible even at distance.

Designing and preparing individual educational plans (IEPs) and other official documents is an essential part of the job description of SNTs. Special-educational arrangements that take effect next autumn must be designed during springtime, which meant that parental meetings were held even during the distance learning period. Mostly this was done by phone, while signatures for the important documents had to be gotten by letter:

> *"I needed to get the signatures of the guardians, so letters were sent back and forth. Then some changes occurred, the parents got angry, meetings were dragged out, and parents' frustration went out on me. We came up with alternatives: parents could write a message in Wilma, and that was printed out and sent further as an official proof of assent."*

iii. Exceptional teaching arrangements and flexible learning solutions. Most respondents tried to continue special education according to same schedule and same methods as they had done before school closures. Despite this several informants had to reschedule their working days, sometimes at a very short notice, due to staff shortages and increased need of special-educational support among students. In practice, this meant that in many cases, the respondents had to fill in for colleagues and assist online classes at request. *"It felt I was more of an assistant or a stand-in than a special needs teacher"*, told one of the informants. A few respondents took over a completely new form of work assignment, the so-called "on-call duty": they allocated a daily time slot of one or two hours for being flexibly available for anyone in need of support or advice. In those schools where the role of SNTs was supervisory, the respondents had to determine where extra hands were most needed and decide on who takes over which work assignment: *"No one has told me that I have a supervisory role. I have assumed that role all by myself. To achieve the best results, I need to be supervisory and sort of 'push' my perspective."* To secure the best possible learning, the respondents came up with exceptional solutions. For example, one of the respondents went home to a student twice a week to teach the essentials in person:

"They [a parent to a student with executive function issues and learning difficulties] asked if I could come to their home to teach their child, which I did. I don't have as many students as my colleagues, so it was not as difficult for me as it would have been for somebody else. It was the right thing to do."

6.1.3. Providing special-educational support through differentiation, interaction, and technology

This chapter presents the third main theme of the first research question, that is, the key elements of special-educational support at distance. Three sub-themes emerged from the data analysis:

i. *Differentiation on individual and group level*
ii. *Teacher–student interaction to motivate and support*
iii. *Utilising educational technology to provide better support*

i. Differentiation on individual and group level. During the COVID-19 school closures, students with executive function issues needed the attention and assistance of SNTs more than usual. Support for learning and concentration difficulties was needed as much or less than usual. At distance, the practice of differentiation was carried out according to the same principles as before the school closures: Differentiating measures were conducted at both individual and group level. Differentiation was carried out mainly by reducing the scope, depth, and complexity of learning materials, cutting down the number or exercises, and giving more time to execute the given exercises. In practice this meant, for example, that the respondents chose to prioritise basics over more complex parts of learning content:

> *"We practiced finding the vocabulary [in the textbook]. We practiced finding the grammar section. We chewed over where to start when reading a longer text. 'What is this chapter about, what are the key points?' and so on. Basics. Just basics."*

Not all students were able to live up to the increased level of independence and autonomy related to remote learning due to, for example, undeveloped studying and self-regulation skills. This, in turn, increased the need of differentiation. One of the informants expressed their surprise: *"They [students] had never needed help before, but suddenly, without warning, the need for special-educational support simply skyrocketed."* In many cases, the severity of students' learning difficulties became apparent only after the transition to distance learning when students with SEN suddenly had to survive without teachers' physical presence and contextual cues from classroom environment. Even motivational issues emerged. SNTs helped their

students forward in the same ways as before school closures: by giving them shorter and clearer instructions, doing exercises together, creating personal goals and possibilities to succeed, and coming up with creative solutions that supported student learning: *"When the students finally dared to ask for help, I started walking them through all instructions. Basically, I became their technical support."*

ii. Teacher–student interaction to motivate and support. The need to keep students with SEN motivated became highlighted during the distance learning period. Having someone to give small pushes helped the children to continue with their work, stay motivated, and maintain a positive mood. *"Working together was my way to motivate. I couldn't come up with anything else"*, told one of SNTs. During the school closures, the respondents noticed that most students were in need of validation from an adult. One respondent described the importance of encouragement, reinforcement, acknowledgement, and feedback: *"Special needs teachers are needed to underline that 'yes, these exercises are important, and yes, the more you do, the better you get'."* An uplifting attitude and well-thought-through advice had a positive impact on students: *"Every day, there was someone who called, some students more often than others. When the contact to a certain student was created, they started calling more often",* explained one respondent.

The teacher-student interaction had not only educational significance but also a more social function: gestures such as inquiring after students and being available for support signalled presence and care. The respondents tried to act in a way that would signal that no one needs to cope with the pandemic event alone. Routine maintenance of contact also helped SNTs to monitor that the wellbeing of their students did not plummet for the worse. One of the respondents reflected back on the distance education period: "*I got them [students] to work only after they started trusting me. That relationship got lost when sitting at home and not meeting in-person."* Another informant emphasised the significance of regular maintenance of contact: *"It was important to have a grip on these students at least for a couple of hours every day."*

iii. Utilising educational technology to provide better support. In terms of special-educational support, use of technology and digital platforms offered many great possibilities: Text documents could be co-edited, oral exercises could be recorded and instructional videos could be watched multiple times. One respondent said: *"I learned*

some nice tricks. For example, I taped in all oral exercises and sent the recordings to the subject teacher". Many learning platforms automatically adapted the exercise difficulty level according to student performance. Tracking learning objectives was simple thanks to learning analytics functions and statistics available in some of the online learning platforms. Instant messaging lowered the threshold for students with SEN to ask for help. Giving help, support and individual guidance became more discreet thanks to platforms and applications that enable individual communication even in the middle of a virtual class meeting with a number of students: *"Differentiation draws less attention thanks to the private digital contact. At school, the smart ones immediately notice all special arrangements and point them out."* One respondent mentioned an agreement they had made with a student with SEN:

> *"We agreed on the phone that whenever I say that 'now all you students can leave this online meeting and get to work', this one student never leaves but stays in the chatroom. I did not say it out loud when others were listening."*

Some respondents felt that use of technology helped them to stay more organised. Student assessment became simpler since students' learning progress was well documented and easily accessible. The respondents appreciated how easy it was to monitor students' performance and give fair grades at the end of the school year: *"We're supposed to assess student learning individually but equally. When in contact instruction, I never knew their true skill level. Grading was difficult. Now, I have documented everything so I can just check my notes and judge from there."* A few respondents mentioned that they were pleased to let students be in their own element, that is, in the digital world. One of the respondents said: *"We were all learning together. Or well, it was some kids who were teaching us teachers."*

6.2. Challenges with special education during the COVID-19 distance learning period in spring 2020

This chapter presents the results to the second research question. The thematic analysis showed that challenges with special education during the COVID-19 distance learning period can be divided into four themes:

6.2.1. *Changes in everyday working life*

6.2.2. *Increased workload*

6.2.3. *Difficulties with remote communication and cooperation*

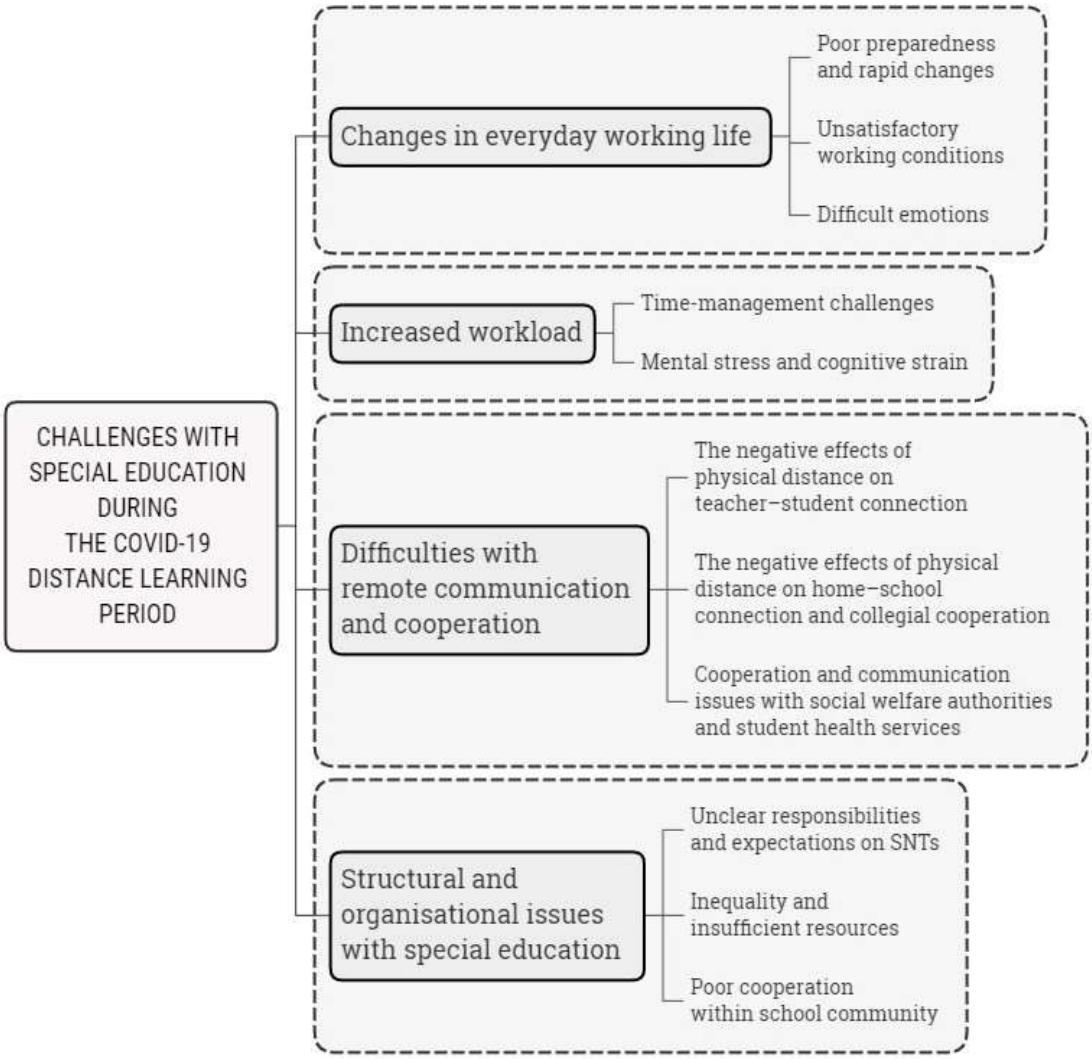
6.2.4. *Structural and organisational issues with special education*

The first three themes emerged along with or in consequence of the exceptional situation. The fourth theme covers the challenges that had already existed before the exceptional situation. These are important to introduce in the context of the COVID-19 school closures for two reasons: First, in many cases, the negative effects of these structural problems worsened during the distance learning period. Second, issues with no situation-specificity had a cumulative effect on the challenges specific to the distance learning period, making them more difficult to overcome. In other words, structural and organisational problems caused the more situation-specific challenges to escalate further.

Figure 4 illustrates both main themes and related sub-themes that answer to the second research question.

Figure 4

Challenges with special education during the COVID-19 distance learning period



Now, this chapter separates into four subchapters outlining the results to the second research question in accordance with the main themes identified through the thematic analysis process.

6.2.1. Changes in everyday working life

This chapter presents the first main theme of the second research question, changes in everyday working life. The chapter consists of three sub-themes:

i. *Poor preparedness and rapid changes*
ii. *Unsatisfactory working conditions*
iii. *Difficult emotions*

i. Poor preparedness and rapid changes. The respondents wished there had been more time to prepare for the distance education period. Students with SEN would have benefitted from the possibility to practice using devices and online learning platforms at their own tempo in a relaxed manner. One of the respondents said: *"It would have been nice for students to familiarise with these platforms beforehand in a small group where they don't feel ashamed for their low skill level."* SNTs, for their part, had to rethink their whole job description: suddenly, they were forced to work in different ways, use different learning materials, and in some cases even teach different subjects that usual: *"Practical subjects, like sloyd, were challenging for many. This was because students were unaccustomed to free-form exercises, and because at home, everyone has different learning conditions."* Ensuring the best possible learning for students with SEN became difficult, since new regulations and recommendations came into effect on weekly basis, meaning that educational practices had to be re-thought time and time again. *"I just had to learn to live with the fact that I didn't know how my life looked like",* summarised one of SNTs.

ii. Unsatisfactory working conditions. The COVID-19 school closures affected the working conditions of the respondents to a great extent: Everyone worked at home on digital devices. Prolonged sitting had a negative impact on the physical well-being of the respondents: *"Having to sit all-day every-day has been horrible: my eyes are tired and my shoulders and back hurts."* Not only SNTs but also their students would have needed proper "home offices" with ergonomic furniture and enough room for work. The presence of family members and pets sometimes distracted both children and SNTs from their work. One of the respondents mentioned having worked in a downstairs common-room of the apartment building in which they lived. Another one described their working routines in the following way:

> *"I used the kitchen table as my desk, while the living room table was covered with piles of materials. I had so many classes and it was only a 3-minute change between each lesson. I just picked up a new pile of books and continued with those. My husband had to move to our summer cottage because there was no room for him."*

Looser daily schedule and changed routines posed a considerable challenge especially for those of respondents whose students did not have the capacity to organise their daily rhythm. For example, the reversed sleep rhythm of some students interfered with the schedules of SNTs and complicated implementation of special education and special-educational support: *"Some students didn't answer my calls before 11am. I called their parents who then sent their granny or grandpa or someone else to wake up the oversleepers."*

iii. Difficult emotions. The respondents brough up a variety of emotional reactions stemming from school closures and the exceptional situation overall, many of which affected their coping and general well-being negatively. One respondent summarised their feelings as follows: *"It has been such a roller coaster of different emotions: from doubts to trust, from the feeling of everything going well to feeling of completely failing in everything."* The pandemic event raised concerns not only regarding the world situation and own health but also on behalf of risk-group family members and students with difficult home lives: *"In the beginning, I followed the pandemic news like I was doing a side job. It became a burden"*, confessed one of SNTs. Especially challenging for the respondents was to witness how stressed their colleagues were. Some informants went through a spectrum of emotions: tiredness, powerlessness, loneliness, inadequacy, and frustration. Awareness of the important function that teachers have in the society leads to increased pressure to do well. Stress over accountability was intertwined with feelings of uncertainty, insecurity, and self-doubt: *"I found myself worrying if I had called them [students] often enough – if I had really showed that I am here for them."*

6.2.2. Increased workload

The second main theme of the second research question has to do with increased workload. The two sub-themes that were identified within the main theme are:

i. *Time management challenges*
ii. *Mental stress and cognitive strain.*

i. Time-management challenges. The respondents named a number of time management challenges that influenced their work negatively: Their workdays extended from both ends. Some mentioned having worked even on weekends. Lesson planning, preparing exercises, and reviewing student assignments took more time than usual. Paper materials had to be converted to electronic form. In addition, there were many new things to learn:

> *"The working time of special needs teachers is calculated as the number of lessons given, which remained the same, but the amount of other work-related tasks increased tremendously: learning new, trying to get in touch with students, finding missing contact information…"*

A new dilemma on which SNTs had to take a stand was distributing the available resources in an equitable manner: time and personnel were limited while the number of students in need of support increased, making prioritisation crucial. One of SNTs

> *"In contact teaching, I can easily manage 6–8 students simultaneously, but at distance I sometimes had ten students in an online video meeting and three students messaging me because they didn't have the courage to participate via video. I was pulled in opposite directions."*

One of the respondents told they had a list of exactly whom to contact every half-hour. Change of setting made it more difficult to estimate how much time different activities would take. Some respondents felt their working time was easily wasted, since even the smallest things took longer than usual. Some informants felt pressure to be available even outside their workhours. Working remotely meant the work was "too close", leading to work and leisure fusion. *"I sat all days planning my lessons while simultaneously being open for communication with my students. We were online together; they did their homework, I created exercises for the next day*", described one of the respondents.

ii. Mental stress and cognitive strain. The respondents experienced distance education as cognitively exhausting because it required constant thinking: Tried-and-tested practices had to be reinvented. There were many uncertain factors to consider when designing remote lessons and planning special-educational support measures. Everyday working life was uncertain and challenges unpredictable which forced SNTs to prepare backup plans as a precaution:

> *"The increase of workload was not the hardest part. Rather it was the fact that I was forced to rethink everything, and to constantly try to find new ways to work. Nothing I did before could be done in the same way."*

Furthermore, both SNTs and their students suffered from information overload and felt the need to disconnect: *"Many students were frustrated because their phones were constantly beeping. They just switched off, stopped answering altogether, didn't have energy to check their messages"* Continuous multitasking, clogged email inbox, constant message notifications and platform fatigue added to the exhaustion of respondents. As a result, many noticed their brain working "overtime" and had trouble relaxing. One respondent summarised: *"Almost every day, it was a bit too much."*

6.2.3. Difficulties with remote communication and cooperation

This chapter presents the third main theme of the second research question, that was also the most frequently mentioned and widely discussed theme across the whole data set: challenges in remote communication. Three sub-themes emerged from data analysis:

i. *The negative effects of physical distance on teacher–student connection*
ii. *The negative effects of physical distance on home–school connection and collegial cooperation*
iii. *Cooperation and communication issues with social welfare authorities and student health services*

Common to the first and second sub-theme was that communication apart was experienced to be boring, complicated, time-consuming, energy-taking, ineffective and "weak", meaning that the social connection between SNTs and other parties felt deficient as if lacking something essential.

i. The negative effects of physical distance on teacher–student connection. Students' avoidance behaviour and absences caused considerable trouble for the respondents. Some students were not willing to comply with instructions and daily schedule. Others refused to seek support or accept the help that was offered. *"They*

[students with SEN] have quite high demands on themselves, they want to perform well despite their difficulties. When there were no teachers telling them to skip half of the exercises, they sat hours and hours in the evenings doing schoolwork", told one SNT. In a few cases, lack of physical presence affected the teacher-student connection, making it difficult to reach out to those in need of special-educational support. The respondents mentioned having a hard time determining whether the students understood the subject matter, identifying the reasons behind problematic student behaviour, and recognising the emotional states of students: *"It was much more difficult to 'read' students at distance, to know if they were okay."* Besides, many students felt discomfort when using video platforms, which disturbed communication even more. One informant explained:

> *"When a student told that they had technical problems, I was unsure if that was true, or if it was just that they were tired and couldn't cope anymore. They sharpened up when I called them, but when I contacted their parents, it turned out that there had been a lot of crying and rebellion and tiredness in the air."*

ii. The negative effects of physical distance on home–school connection and collegial cooperation. The respondents who were used to communicating with their colleagues face-to-face were surprised by how time-consuming cooperation, negotiation, consultation, and information-sharing were at distance. Even the smallest things seemed to require extra effort:

> *"It [communication with colleagues] was terribly slow and frustrating! When I'm at school I can just walk to the teachers' common-room and get ten different things done in five minutes. Now, I had to take care of every single little thing separately, either call or send a message, which took much more time."*

A few respondents raised the issue of using a multitude of communication channels in parallel, upon which information went missing. If response time between messages prolonged, decision-making processes became slower. When talking on the phone with parents, interaction stayed mundane instead of cutting to a deeper level. Even arranging parent-teacher online conferences and requesting necessary signatures on official documents by letters posed a challenge.

iii. Cooperation and communication issues with social welfare authorities and student health services. The respondents' experiences of multi-professional

cooperation during the COVID-19 school closures varied greatly. A few informants expressed their concern over slow execution of necessary interventions by social welfare authorities and student health services. One respondent felt that social welfare authorities did not take the concerns of school personnel seriously, while another informant was disturbed by student health services' differing approach on communication and connecting with families. Inefficacy and delays made SNTs frustrated, especially if the home and school situation of a certain child seemed to require immediate action. One respondent found themselves constantly worrying for their students: *"I don't want to use my time mulling over whether there is anyone to help them [students with SEN] or not. I want to trust that someone else is taking care of the most serious of issues."* Another informant expressed their frustration as follows:

> *"I was doing heaps, I called and called until I got hold of the student or their parents, while student health services only sent a message and gave a time for a meeting. If the parents or the student didn't show up, nothing happened. That's not how it should go. If messages go unreplied, you have to try something else."*

6.2.4. Structural and organisational issues affecting special education

The fourth and last main theme of the second research question outlines structural and organisational issues complicating the work of SNTs during the COVID-19 school closures. These challenges can be divided into three sub-themes:

i. Unclear responsibilities and expectations on SNTs
ii. Inequality and insufficient resources
iii. Poor cooperation within school community

Even if the structural and organisational challenges did not originate in the exceptional situation, they are still important to raise in the context of the COVID-19 school closures. This is because the negative effects of these issues worsened during the distance learning period. Moreover, the structural and organisational problems – often persistent by their nature – caused the situation-specific challenges to escalate further.

i. Unclear responsibilities and expectations on SNTs. In general, the job description of SNTs is relatively free and flexible with alternating in terms of work assignments, roles, and responsibility areas. During school closures, the vagueness and illegibility regarding job description became highlighted. The respondents brought up the need for easy-to-understand codes of conduct and clear directives from above: *"It would have been easier if the principal had explicitly said how everything is to be done, if we had had something to go by."*

A few informants described how during school closures their work role merged into a fusion of many different work assignments and duties, some of which were technically not part of their job description. This was possible due to general unclarity regarding the responsibility areas of different teachers: Even within a single work community, perceptions of differentiation and special education could vary greatly. *"There are these unrealistic expectations that we [SNTs] need to take full responsibility for certain students – which is totally in conflict with the three-tiered support model"*, explained one of SNTs. Lack of explicit directions caused confusion over, for example, who is responsible for differentiated instruction and at which point SNT should be informed about student-related difficulties. These issues had been more or less bearable when still in contact teaching, but during the COVID-19 distance education period, the adverse effects on decision-making processes and implementation of special education built up like never before. One respondent described the domino effect as follows:

> *"The subject teachers didn't always realise that we [SNTs] need updates all the time. They could send a message saying 'hi, this student hasn't done anything in four weeks. It required a lot of extra work to figure out how to solve such tricky situations."*

ii. Inequality and insufficient resources. Although Finland is one of the most developed countries in the world in terms of Internet infrastructure, the Internet connections turned out to be both faster and more stable in urban areas than in rural areas. One informant described the difficult position students were in:

> *"This is a rural school with good-for-nothing Internet connection. During the distance learning period, some students were completely in the dark. They couldn't attend any of the online meetings due to Internet connection drops. No wonder they were so irritated."*

In families where several people had to work remotely at the same time, excessive broadband usage led to Internet overload. Network speed and quality were somewhat dependent on the financial situation of students' families. Furthermore, family socioeconomic status became visible when looking at the number of digital devices in the households of students. One respondent said:

> *"There was this family with 3 children who all worked on the same computer. It became a puzzle to find a time slot when that computer was free, so that I could have my lesson with one of the siblings. I had to check with three different teachers when their lessons were, and then time my lesson outside those hours."*

Under ordinary circumstances in contact teaching, the financial inequalities do not have great significance because in school, the impact of socioeconomic status on educational outcomes can be equalised so that all children have the same chances. However, during the COVID-19 school closures, the digital divide put some students at disadvantage compared to their peers.

School device policies and resources either widened or bridged the technology gap between families: in some schools, the use of technical equipment is commonplace, each student has their own device, and both e-materials and digital learning platforms are regularly used to support learning, enrich daily activities, and differentiate assessment. In other schools, the usage of digital equipment and platforms is less well established. These differences affected how long it took to hand out the necessary devices to everyone, and how accustomed to using these students were. *"Devices were offered for those who came and asked for one. A couple of students said they cannot get to school because 'It's 30 kilometres to travel and buses don't run'"*, recalled one of SNTs.

The respondents in this study were well aware of regional and school-specific differences in educational and digital resources. The differences applied to learning materials available, personnel resources and given working hours, potential cuts and layoffs, and device policies. Dissatisfaction arose, for example, the nationwide cuts in education funding were also seen as a problem area. One respondent expressed their frustration: *"If we had only the pandemic as our cross to bear, we would have done fine, but our city has cut down on education. It's almost better with distance education*

than having the school to save from everything." Another one described their everyday life during the school closures:

> *"Schools save by not giving special needs teachers own copies of the books that are used in classes. Therefore, I had to run around all evenings trying to find someone who had the book I needed the next day, just so that I could copy it. It's illegal, but I needed those pages to follow up what my students were doing."*

iii. Poor cooperation within school community. The overall attitudes within school community determine how comprehensive of support students with SEN receive. Even during the COVID-19 school closures, the effectiveness of special-educational support and differentiation practices depended on whether implementation remained as the responsibility of SNTs or became a concern of all school personnel. *"My students don't want to be in class because they don't understand anything there. Teachers tell them that 'We've already gone through this topic. You just haven't listened'",* said one respondent.

In general, poor collegial communication culture, toxic school atmosphere, detrimental workplace culture as well as lack of special-educational understanding all have negative influence on the whole school community, especially students with SEN. If this kind of work community problems had been an issue already in contact teaching, during the distance learning period, the negative consequences on the work of SNTs culminated more than ever. *"After major changes and in stressful situations, all those little things that haven't worked before become extra difficult to manage. So, if collaboration between teachers has always been an issue, it gets even worse during periods like this",* explained one informant. Another respondent complained that the subject teachers value their own subject over everything else, and thereby find it difficult to see the bigger picture. The transition to distance learning meant that everyone focused only on their own workload without giving a thought to collaboration: *"Most learning difficulties went unnoticed. Whenever an assignment was not submitted, the subject teachers thought 'Oh, this student just didn't bother to do this exercise'."*

Despite that the three-tiered support model has been in force for years, it has not become established in every school. This manifests in many ways: In some schools, special-educational needs, diagnoses, and the concept of differentiation are understood

neither in theory nor in practice. The expertise of SNTs is not valued, or their advice taken seriously: *"I told the principal that the digital competencies of these students are not at the level that they imagined. My message was downplayed. They just said 'Oh, your students just don't bother, they're being lazy'"*. In other schools, attitudes towards students with SEN are rejective and negative: *"Whenever I told a subject teacher that now is not the time to demand that much and that I've decided to do like this and skip over that, they didn't even seem to realise what I was talking about."* Some classroom and subject teachers see implementation of special-educational support measures only as an additional workload.

As the transition to distance learning led to an increase in the workload of SNTs, they wished for more support, cooperation, and flexibility. After all, inclusive education cannot be fully actualised neither in-person nor at distance if classroom and subject teachers are not willing to re-evaluate or change established practices, or if students with SEN are always seen to be someone else's concern. As one of the respondents stated: *"Special needs teachers aren't miracle workers. We try to influence the attitudes of our colleagues, but technically, we cannot do much more."*

Just as with collegial cooperation issues, there were some home-school cooperation challenges causing trouble during the COVID-19 school closures that had existed already before shifting to remote learning. These were, to name a few, parents' indifference, information failures, language differences, negative attitudes, and reluctance to cooperate: *"Some parents react only after their child has gotten dozens of absence notifications – if at all"*, told one SNT. Another said: *"The principal does not really know us [SNTs], our situation, or what we are doing."*

In addition, a few respondents indicated that even cooperation with social welfare authorities had been deficient already before the school closures. One of the informants described their despair:

> *"I don't know what is going to happen with this student. I would need backup from the family and the social welfare authorities, but no – it's like banging my head against a brick wall. I can do nothing but to throw my hands up, and it makes me frustrated.*

7. Discussion

This part of the thesis focuses on discussing the research process and results of the research in the light of relevant literature. In the first subchapter, strengths and weaknesses of the research are critically viewed. The second subchapter deep-dives into practicalities and challenges that SNTs faced curing the COVID-19 distance education period, comparing the results with previous research and analysing them in the light of what we know about distance education during times of crisis, distance education on basic education level and distance education for students with SEN. The connections between the JDCS model (Johnson & Hall, 1988) and the COVID-19 school closures are discussed both in general, and more specifically in terms of structural and organisational challenges that existed before the COVID-19 event. Finally, some reflections on digital divide and social inequalities are presented.

7.1. Methodology discussion

This subchapter focuses on strengths and limitations of the research method and processing of data. These are presented with reference to the relevant literature.

Starting with the strengths, a number of positive aspects should be raised. Due to the ongoing pandemic situation, special education at distance can be considered a very topical issue. My interest in this topic arose abruptly during March 2020 when all Finnish comprehensive schools transitioned to distance learning, after which I promptly started with the research process. Despite the abrupt start, ethical considerations and quality aspects were taken well into account in the research design (see *5.6.3 Ethical and quality considerations in the research design*). The research method and data collection strategy also fit their purpose. Considering the aim and nature of this study, using semi-structured interviews was a suitable data collection strategy. The combination of predetermined, open-ended questions and spontaneous follow-up questions worked well. The data collected was profound, descending below

the surface level and giving an in-depth overview of the personal and sometimes sensitive experiences of research subjects. Using quantitative methods would not have provided the same level of depth, leaving investigations in the study area deficient.

Additional strengths of this study are the sample size and variation in respondent characteristics. As stated by Cresswell (2013), a sample size of twelve respondents can be considered appropriate for this type of study. The overall variation in respondent characteristics is relatively high in terms of age, level of work experience, school size, rural-urban classification, and job description, which increases the scientific quality of this study. However, this diversity does not mean that the sample was a complete cross-section of Finnish comprehensive school SNTs. Most respondents were females and came from Southern, Southwestern and Western parts of Finland. In that sense, the overall picture is still incomplete. A remark worth considering is that reaching sufficient diversity might not have been possible without the number of interviewees growing too large, which in turn would have made the thematic analysis process even more complex and time-consuming.

There is also a risk that only certain types of people have decided to volunteer as interviewees. These could be either those who have found the corona spring to be particularly challenging and therefore have much to say about the theme, or those who have enough energy left to go through the extra effort of taking part in an interview. This might reduce sample representativeness. It is important to keep in mind that the general view of the COVID-19 distance education period presented in this study is not an absolute truth but a summary of the experiences of twelve Finnish comprehensive school SNTs. As per Brink (1993), even if the researcher was never fully able to eliminate all risk factors that threaten the research quality and ethics, the mere understanding of these risks goes a long way towards securing that the research process fills the quality criteria and ethical standards.

In addition to the above-mentioned, this study has a few weak points that should be critically reviewed: First, looking at the interview process and related limitations, it is worth mentioning that one of the interviews was conducted in August several months after the distance education period had ended. The data collected in August might differ from rest of the data, collected at the end of the spring semester. On one hand, the last informant might have had time to process the memories and give them a new

meaning. On the other hand, the respondents interviewed in May and June still had their distance education experiences in fresh memory. To secure higher trustworthiness, it would have been better to conduct all interviews around the same time.

According to Dalen (2015), non-verbal communication has an important function in interview research. The researcher can gain important information about the emotional states and thoughts of the respondent by observing their body language and tone of voice. The interviewee, in turn, may be affected by the discernible reactions of the researcher. All interviews in this study were conducted via video conferencing services, which may have affected both me as a researcher and the informants, for example, because non-verbal communication clues are more difficult to observe and interpret remotely than in person.

Even if the phases of data processing and thematic analysis were carefully conducted, the amount of the data material might raise some questions. A large data set can be as much of a flaw as it can be a strength (Namey et al., 2008; Nguyen et al., 2012). During the data analysis process, I was forced to summarise large amounts of data, and consequently, some meaningful details might have been excluded. To identify the main features across the data set, some information needed to be reduced to a simplified form. This constitutes a risk that my study is too superficial and leaves out critically important details that explain the large whole better than generalisations even could do. To minimise the probability of this happening, I included some meaningful citations into the results section. These provide a more personal insight into the results.

7.2. Discussion of results

This subchapter presents some reflections on the two research questions in comparison with previous literature and the CoI framework theory by Garrison et al. (1999). In addition, the effect of structural and organisational issues on special education at distance is discussed. These challenges are vital to address before the next disease outbreak. Finally, the last subchapter presents some critical reflection on digital divide

and other education-related inequalities, such as rural-urban classification, the functional capacity of social welfare services, family socioeconomic status and the level of digitalisation in Finnish comprehensive schools.

When discussing the teaching and support arrangements made for students with SEN during the COVID-19 school closures as described by the twelve informants, it is important to keep in mind that the overall picture is likely to be much wider and multifaceted than this study suggests. Factors such as working conditions, workplace culture and number of students vary from institution to institution. Even within a single school, there can be several SNTs with different work assignments and roles, which makes the nature of this profession even more multifaceted. Furthermore, administrators of each educational institution can independently outline what learning applications, communication tools, social media platforms and online learning games are used in education (EDUFI, [n.d. -d]). Because each SNT approached the exceptional situation from their own starting point, it is challenging to determine to which degree the results resonate with the experiences of other SNTs during the same time period. Since it is fundamentally challenging to give a comprehensive overview of SNTs working situation during school closures, the level of transferability (Smith, 2018) remains questionable.

Despite the variation in the distance education experiences of SNTs, the research results and related discussion offers some insights even in terms of generalisation. This is because the results of this study consist of multifaceted and relatable real-life experiences. This wealth of information increases the level of naturalistic generalisability, as in the extent to which readers find the results to be relatable (Smith, 2018). Moreover, this study even has potential to fill the criteria for analytical generalisability and generativity (Smith, 2018). The time will show if the findings can be used to create new theories of distance education and to design future distance learning practices. Research contribution and potential implications are further discussed in the next chapter (see *8.1. Research contribution and implications*).

7.2.1. New setting, similar essence – Reflections on special-educational teaching and support arrangements during the COVID-19 distance learning period

During the distance learning period, SNTs worked mostly on the same tasks as before. However, they were forced to adopt new ways of acting. In CoI framework (see *4.1. Community of Inquiry framework theory*) of Garrison et al. (1999), general design of the learning experience is considered the first key element of teacher presence. In the context of the COVID-19 school closures, this meant that adapting special education to the new normal became the responsibility of SNTs. Alongside with differentiation and teacher–student interaction – both essential for helping students with SEN – use of technology became an integral part of special education during the COVID-19 school closures. In addition to traditional schoolbooks, a multitude of devices, applications, platforms, and websites were used for teaching, communication, and support.

During the pandemic event, special needs instruction was conducted mostly at distance. For those in absolute need, in-person instruction in small groups was arranged. Transition to distance learning required SNTs to create and adapt new learning materials, choose which platforms and applications to use in special-pedagogical instruction, select the right means of communication, and decide on the practical arrangements to improve distance learning. This led to a sudden peak in teacher workload and gave rise to feelings of uncertainty. With this in mind, this study substantiates the claim expressed in previous literature (Burdette et al., 2013; Gordon et al., 2010) that both distance learning readiness and pandemic preparedness are of high importance to secure best possible learning for all students. In best case scenario, well-designed technology-based distance education solutions can foster inclusion, create equal opportunities (Nigmatov and Nasibulov, 2015) and benefit not only students with SEN (Basilaia & Kvavadze, 2020) but also other students and teachers as well (Burgstahler et al., 2004). This further supports the idea of investing in distance learning readiness and pandemic preparedness planning in schools.

In addition to the general design of learning experience, teacher presence is also a matter of facilitation, that is, sharing responsibility among students to facilitate critical

thinking (Garrison et al., 1999). In practice this means that SNTs need to identify the exact level of responsibility their students can take and determine adequate special education practices accordingly. The results to the first research question demonstrate that there is some kind of connection between facilitation, the general design of remote learning, and students' cognitive engagement in distance learning: During the COVID-19 school closures, SNTs were able to promote the cognitive presence of students through differentiation, extra guidance, and support. They also took advantage of technology that adapts the level of exercise difficulty, improves teacher-student communication, and enables effective assessment. Students' capacity to cope with distance learning defined the degree of independence. If the level of responsibility was too high, struggling students were directed to part-time in-person instruction.

Overall, most respondents tried to continue special education as before, which was not fully possible due to multiple reasons, such as increased need of support, exceptional teaching arrangements, and changing timetable. Despite the everchanging learning solutions and uncertainty, fostering social presence (Garrison et al., 1999) was just as important as usual: Much of the special-educational support offered during the COVID-19 school closures came down to teacher–student interaction. SNTs were able to contribute to student learning through cooperation and communication. Many respondents felt that social presence helped students to engage in critical thinking and mutual reflection. These findings are supported by previous literature: even Louwrens and Hartnett (2015) brought up the importance of interaction in respect of student engagement in distance learning environments. Furthermore, the results lend support to the theory of Andersson et al. (1999) who proposed that teacher–student interaction supports the third key feature of CoI, that is, the cognitive presence of students.

As can be expected in the light of the CoI framework theory (Garrison et al., 1999), the results to the first research question show how arrangements for teaching and supporting students with SEN at distance were initially a matter of three mutually interacting key elements: utilising teacher presence to foster the cognitive and social presence of students. In this sense, the core of the job of SNTs stayed essentially the same even if the practical implementation of special-educational instruction and support had changed dramatically.

7.2.2. Multitude of issues, "good enough" education – Reflections on challenges with special education during the COVID-19 distance learning period

The pandemic event and related school closures had many direct effects on the working life of SNTs, from the abrupt change in work environment to the spectrum of emotions arising due to the exceptional situation. The time management challenges that influenced the respondents work negatively – prolonged working hours, limited time and resources, constantly changing timetable, overlapping leisure and prolonged time-on-tasks – gave rise to cognitive strain and exhaustion. The link between distance education and time management challenges has been previously identified by several researchers (Barbour and Bennett, 2013, Flores et.al., 2018; Kalamkovic et al., 2013). However, at the time of writing this thesis, there is more research on how to improve the distance learning experience of students, and less information about how to solve the remote work challenges of school personnel. This is counterproductive. Because the working conditions of teachers also impact student learning, the heavy workload of SNTs (and other school personnel members) should not be ignored.

Based on previous literature (Lassoued et al., 2020; Burdette et al., 2013; Burgstahler et al., 2004; Flores et al. 2018), it can be hypothesised that staying on top of the workload would have been easier for both SNTs and students if enough technology training and sufficient IT support had been provided. Nigmatov and Nasibulov (2015) as well as Basilaia and Kvavadze (2020) see information technologies as a one possible solution to meeting diverse needs and adapting to changing situations – given that these technologies are designed to benefit everyone despite functional diversity. The results to the second research question do not directly dispute or verify this view, but rather describe why it is still excessively idealistic to think that distance education was a ground-breaking learning solution for students with SEN. The abrupt pandemic outbreak in spring 2020 disclosed that school systems neither in Finland nor in other countries were prepared to meet the diverse needs of students at distance (see even Fundaro, 2020, as cited in Pellegrini & Maltinti, 2020). It is of course possible that in the future, online special education is to become a common trend (Ludlow, 2014), but this is unlikely to happen before the challenges of distance learning have been addressed.

When comparing previous literature (Barbour & Bennett, 2013; Kalamkovic et al., 2013) with the results of the second research question, many similarities can be found: The respondents in this study preferred helping their students in person, disliked the lack of personal contact, worried for student absenteeism, and felt that staying connected with others was difficult when only using means of remote communication. Even more so, the informants experienced that they sometimes had a hard time identifying the individual emotional states and real needs of their students. This is in good agreement with Flores et al. (2018) who consider differentiation to be one of the major challenges when teaching students remotely. The above-mentioned issues give rise to many questions that need to be investigated further: Can poor distance communication be attributed to a lack of habit? Could issues with relation-building, connecting and cooperation be remedied, for example, by providing more technology training, as suggested by Flores et al. (2018)? Or did the increased workload of SNTs affect the quality of distance communication negatively? These themes are vital issues for future research.

Furthermore, this study has demonstrated that if the roles and responsibility areas in school community are unclear to start with, this illegibility and related confusion will only get worse during exceptional situations. It would be beneficial to clarify vague roles and responsibility areas within schools, to make sure both teachers and principals understand the concepts of the three-tiered support model and differentiation, and to better define the job description of SNTs so that special-educational support can be organised as efficiently as possible even during exceptional situations. Such clarity has been already called for by Burgstahler et al. (2004) who deemed clear institutional policies, available information, clear guidelines, and support from above to be prerequisites for well-functioning distance education system. It is reasonable to assume that once structural issues are put in order, teachers can better focus on integrating creativity and innovation into their respective areas of responsibility. This in turn could increase the sense of autonomy, and motivate teachers who work remotely, as proposed by Flores et al. (2018) and Barbour and Bennett (2013).

All in all, the respondents recognised that schools carried out the instructions of EDUFI in haste and under coercion, and that all parties tried to handle the exceptional situation in the best way possible. There seems to be an agreement on that teaching

and support arrangements for students with SEN made during the COVID-19 school closures were far from perfect, but still "good enough". Citing Kalamkovic et al. (2013): "when a student is unable to attend regular classes, every form of acquiring knowledge is good" (p. 259).

7.2.3. Preparing for the next crisis event – The effect of structural and organisational issues on special education at distance

The JDCS model (Johnson & Hall, 1988) describes how occupational stress arises from the interaction of three different factors: job demands, job control and social support (see *4.2. Job Demand-Control [-Support] model)*. This theory provides an interesting frame of reference for the findings in this study. The JDCS model draws our attention to the personal experience of the workers, in this case SNTs, regarding how demanding their job is and how well they are able to meet these occupational demands. The relationship between these two experiences is mitigated or strengthened by the social support of the surrounding work community. In the case of SNTs it is reasonable to talk about an extended work community covering all parties that SNTs cooperate with, from colleagues to the parents of students.

As stated before, during the COVID-19 school closure period, job demands on SNTs increased remarkably in terms of workload, pressure, difficult emotions, conflicting roles, and time-management challenges. The level of job control, on the other hand, plummeted to a great extent: Working from home and using technology on daily basis was not optional. Instead, SNTs had to adapt to the frequently changing school situation and follow the decisions coming from above to the best of their ability. Limited time and resources decreased workplace flexibility, and the increased need for special-educational support made prioritisation and strict scheduling necessary. Similar findings on teacher challenges in the COVID-19 scenery have been made by Obrad (2020), Pellegrini and Maltinti (2020), Fundaro, (2020, as cited in Pellegrini & Maltinti, 2020) and Lassoued et al. (2020) among others – and more research is published as time goes on.

In summary, during the COVID-19 pandemic school closures SNTs ended up doing a high strain job, which can explain why SNTs felt that teaching and supporting at distance was so burdensome at times. In a situation where the workplace autonomy of SNTs had been greater, or work-related requirements had been lower, even the impact on the well-being of the respondents could have been less negative. This hypothesis is supported by the fact that the respondents in this study also had positive things to say about distance learning. For many, it was the abrupt transition, insufficient preparation time and constant changes that made the challenges more prominent. In line with recommendations of Gordon et al. (2010) and Burdette et al. (2013), distance learning preparedness seems to be one of the best ways to prevent practical challenges and work-related stress during emergency-related school closures.

The third dimension of the JDCS model, social support (Johnson & Hall, 1988), proved to be crucial for the well-being of the respondents during the COVID-19 school closures. This factor also divided the respondents' experiences of the COVID-19 distance learning period the most: the COVID-19 distance education period was clearly heaviest for those of the informants who did not receive the necessary support from their extended work community, that is, colleagues and the parents of students (see even Obrad, 2020; Huber & Helm, 2020). These results suggest that during the COVID-19 school closures, some respondents drifted into the state of 'isostrain' where high demands and low-level control meets with poor social support (Johnson & Hall, 1988). This could explain why several SNTs experienced a decrease in job satisfaction, and overall well-being during the COVID-19 distance education period. However, the data collected do not provide detailed information on the psychological effects of school closures on the informants, which means this type of direct conclusions should be treated with caution.

The results of this study lend support to the theory that social support can function as a "buffer" counteracting work-related strain resulting from high job demands and low job control (Johnson & Hall, 1988). In the matter of the COVID-19, home-school collaboration, collegial cooperation, and mutual interaction with the members of extended work community helped the respondents to regain their sense of control over work while also reducing job demands. This is consistent with the findings of Huber and Helm (2020) and Obrad (2020), according to whom supportive school culture,

collegial collaborative, and school management support in particular increase stress resilience and alleviate occupational strain. However, since the primary goal of this research was not to delve into the factors contributing to the successful distance learning, these should be discussed more in detail in future research.

Apart from crisis preparation, there is even another way to ensure that teachers and school management have more energy and capacity to focus on abruptly emerging issues related to the crisis situation: addressing structural and organisational problems that do not originate from the crisis but exist even "at normal times". A well-functioning system is less vulnerable in crisis than a system with many structural and organisational problems. Thus, to manage future emergencies with success, it is important to find solutions to the more permanent issues with no situation-specificity: unclear guidelines, poor cooperation culture, inequality, and insufficient resources. If SNTs find it difficult to do their job properly when circumstances are relatively normal, an abruptly emerged exceptional situation is likely to give rise to 'isostrain' (Johnson & Hall, 1988). Resolving structural and organisational issues related to special education before the next crisis situation emerges is the best way to protect SNTs from occupational stress and ensure that students with SEN will receive the support they need. After all, it is extremely challenging for teachers to successfully meet the diverse special-educational needs of students when being caught up in the crossfire of high job demands, low job control and poor social support.

7.2.4. School closures uncovering digital divide – The effect of social inequalities on special education at distance

Prensky (2010) suggested that SNTs should embrace digitalisation as students with SEN have already taken a more independent approach on their learning as the Internet makes it possible for them to gain knowledge without teacher presence. In this study, no evidence was found to support this claim. On the contrary, a few respondents expressed astonishment at the low technical skills of students. Often this meant that students with SEN had to rely on the assistance of SNTs – or ask their parents. Consistent to previous literature (Pellegrini & Maltinti, 2020), the findings of this

study suggest that, for some students, parental engagement played a major role in school success, at least to a certain degree. This is problematic for two reasons: First, parents cannot be expected to take on the responsibilities of teachers, especially when they themselves have their own jobs and responsibilities to take care of. Secondly, not all parents have time and knowledge to help their children with schoolwork, which automatically puts students in an unequal position in relation to one another. Sufficient educational support should come primarily from school personnel, not from home, because this way, support is available for all.

A theme that often emerged in previous literature (Lassoued et al., 2020; Beaunoyer et al., 2020; Huber & Helm, 2020; ISTAT, 2020, as cited in Pellegrini & Maltinti, 2020; Obrad, 2020; Pellegrini & Maltinti, 2020) was digital inequalities. Even in Finland, scarce and/or unevenly distributed technological resources gave rise to a multitude of challenges. This became visible at multiple levels of society: Overall, lack of educational funding evoked criticism among the respondents. Regarding, geographical inequality, especially rural schools are in an underdog position compared to urban ones, not least because of inadequate Internet infrastructure. On an institutional level, technological inequality between schools can be noticed when looking at, for example, school device resources, available online learning materials, habituation of using online platforms, and quality of IT support. Down on a family-level, the impact of home environment on learning especially in terms of socioeconomic status is apparent.

The strength of the Finnish school system has always been its equity: All schools follow a common national curriculum, every student has the right to free lunch, and all learning materials and facilities are provided by the school. The wealth of the family does not determine where students receive basic education. Thus, all students begin their academic career at the same starting point. Unfortunately, when the schools were closed, school personnel could not even out the significance of family environment and financial situation for student learning – at least not to the same degree as before. The fact that Finnish students did not have equal opportunities to succeed in distance learning during the COVID-19 school closures does not comport with the ideal of ‘the best school system in the world’.

It seems that when making the decision that all comprehensive schools in Finland should transition from in-person instruction to distance learning, the regional, institutional, and family-level inequalities were not considered enough. Otherwise, these themes would not have emerged in almost every interview of this study. In Finland, we might have a misconception that digitalisation is widespread everywhere, even if the development takes place at different paces depending on the region. In those countries where the level of technological development is not as high as in Finland, digital inequalities were acknowledged as a major issue from the start. In Italy, for example, radio and television played an important role in organising distance learning, as these media were considered as a more accessible alternative for all students despite socioreconomic status (Pellegrini & Maltinti, 2020). However, these are just personal conjectures made on the basis of the literature I have read, and the results I have analysed for this study. The above-described interpretations cannot be confirmed without further research.

The respondents mentioned that in some cases, poor cooperation with social welfare services led to a situation where students with less fortunate or otherwise problematic family background slipped through the institutional safety net. In practice, this meant that in some municipalities, students and their families received more support to cope with family issues and other challenges, while in other municipalities, they had to manage on their own. Now, as awareness of these issues has increased, it is time to decide, what actions should be taken to secure best possible learning for students with SEN even at distance. Furthermore, it would be important to identify whether the educational, digital, and social inequalities were just a temporary setback resulting from the pandemic event, or if these are, in fact, related to a greater societal change. If the gaps between high- and low-income families, rural and urban schools as well as different geographical areas truly are widening, this problem needs to be addressed immediately. Students' place of residence and family circumstances should not determine whether they succeed in school or not. Fundamentally, this would be against the core values of Finnish school system.

8. Conclusion

In this final chapter, research contribution and implications as well as recommendations for future research are briefly presented.

8.1. Research contribution and implications

This study has contributed to knowledge on an under-researched subject matter, special-educational teaching and support in times of crisis for students with SEN. A key finding in this study is how great demands the distance learning period posed on both students and school personnel. Special-educational distance learning was clearly not suitable for all school subjects and for all students with SEN. However, school personnel members were aware of the fact that an exceptional situation requires exceptional means. When teaching and supporting students with SEN, even small successes should be considered as great gains.

Some preliminary data from other Finnish studies were published during the writing process: according to a study conducted by the universities of Helsinki and Tampere, the COVID-19 distance education period led to increased teacher stress, worsened inequality between students, and caused problems especially in those schools that lacked sufficient digital resources (Harjumaa, 2020). I hope all findings in this area of research – including this thesis – will be used as a frame of reference when preparing national crisis management plans for basic education in Finland. Because students with SEN are in the most vulnerable position during exceptional situations, their needs should be prioritised when planning for future crisis events.

My study adds to what is already known about special education during times of crisis. The results provide an applicable knowledge basis to identify problem areas that should be prioritised when designing new, more appropriate distance education policies in Finland. However, to be able to tailor distance learning practices specifically for students with SEN, more research on several themes is needed. The

next subchapter briefly presents some areas of interest in which further research should be undertaken.

8.2. Recommendations for future research

In line with my results and related discussion, I want to suggest a few themes for future research to focus on. First, this qualitative study has focused on the depth of the data material. Therefore, a high level of statistical-probabilistic generalisability or transferability cannot be guaranteed. A quantitative research in the form of questionnaires could be of use when mapping out regional differences in special-educational distance learning and support arrangements and related challenges. Using survey research could help us gain a more comprehensive understanding of pandemic preparedness and distance learning readiness in comprehensive schools across Finland and help us address even the most profound challenges of remote education.

Consistent with the news articles published in spring 2020 (Aalto, 2020; Kröger, 2020), the results of this study confirm that during the COVID-19 distance education period, teachers had to cope with heavy workload, uncertainty, and inadequate working conditions. Hence, I propose that further research needs to be carried out to determine the psychological effects of school closures on school personnel. Furthermore, future work should also examine how teachers' occupational stress and other work-related issues impact student learning, and what can be done to counteract the potential negative effects that teacher exhaustion has on students.

Another vital issue to be investigated further can be found when looking at the literature review and the results of this study. Lassoued et al. (2020) identified several issues with distance learning, one of which was dissatisfaction caused by professors and students being unaccustomed to remote communication. Louwrens and Hartnett (2015) found that being on display caused students to feel uncomfortable, leading to less engagement in online environments. Even in this study, similar findings were obtained. Because communication is the core of all three types of presence in distance education (Garrison et al., 1999), future studies should investigate how to further

develop means of communication in distance learning, how to utilise the opportunities new technologies create and which issues there are to be solved. It would also be interesting to investigate on how to reduce students' discomfort related to being on display.

This research has focused only on the practical implementation and challenges of distance learning for students with SEN. Such a focus can give a distorted idea of the nature of remote education. Therefore, it would be important to address even the positive aspects and opportunities of distance learning, preferably with a special focus on the diverse needs of students. To further my research, I hope to take advantage of the remaining data material left over from this study to address the positive aspects of distance learning as well as coping strategies and professional skills that helped SNTs to make it through the COVID-19 distance education period.

My last recommendation for future research has a countrywide importance. The COVID-19 distance education period brought to daylight a variety of inequalities on several levels of society that all have a great impact on our education system. These inequalities often have a particularly strong impact on students with SEN. All issues of educational equality, especially regarding digital divide, should be investigated further. Addressing structural and organisational challenges in the school world is the only way to secure that all Finnish students can begin their academic career under the same starting conditions. Every student has the right to high-quality basic education where individual needs are taken well into account despite family background, region of residence and functional diversity.

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Appendix 1

Tutkimuskutsu

Hei!

Nimeni on Riikka Aarnos. Opiskelen erityispedagogiikka Åbo Akademissa Vaasassa. Kirjoitan pro gradu -tutkielmaani siitä, miten suomalaiset peruskoulun erityisopettajat ovat kokeneet koronaviruksen aiheuttaman poikkeustilanteen. Minua kiinnostaa erityisesti, miten erityisopetus ja erityispedagoginen tuki on onnistuttu järjestämään etänä niille oppilaille, jotka niitä tarvitsevat. Lisäksi tahtoisin tietää, millaisia haasteita olette kohdanneet työssänne kevään aikana, ja miten olette näistä haasteista selvinneet. Erityisopettajien näkökulmaa kaivataan, jotta etäopetuksen käytäntöjä ja keinoja voidaan kehittää eteenpäin. On kaikkien edun mukaista, että erityisopettajat kykenevät hoitamaan työnsä ongelmitta myös poikkeustilanteissa.

Tämän tutkimuksen kohderyhmä ovat ne suomalaiset peruskoulun erityisopettajat, joiden arkeen pandemian aiheuttama poikkeustila on vaikuttanut, ja jotka ovat kevään aikana hoitaneet työnsä etänä. Haluan haastatella 5—15 erityisopettajaa joko puhelimessa tai jonkun verkkokokoustyökalun (esim. Skypen) avulla. Haastattelu kestää n. puoli tuntia.

Työprosessini kannalta on olennaista, että saan nauhoittaa haastattelut. Äänite kuitenkin poistetaan transkriboinut vastauksesi ja muuttanut ne muotoon, jossa vastauksia ei voida enää yhdistää vastaajaan. Kaikkia henkilötietoja ja keskusteluja käsitellään luottamuksellisesti. Tietoja kerätään vain tutkimustarkoituksiin, ja niitä säilytetään vain niin kauan, kuin on tutkimusprosessin kannalta tarpeellista. Kukaan muu kuin minä ei tule käsittelemään tutkimuksen dataa.

Haastatteluun osallistuvilla henkilöillä on oikeus keskeyttää haastattelu koska vain ja jättää kysymyksiä välistä näin halutessaan. Vastaan kaikkiin kysymyksiisi parhaan kykyni mukaan.

Mikäli olet kiinnostunut osallistumaan, lähetä minulle sähköpostia, niin sovimme yhdessä haastatteluajan. Mikäli sinulla on kysymyksiä tutkimukseen tai graduuni liittyen, voit lähettää minulle sähköpostia tai soittaa. Yhteystietoni löydätte alta.

Kiitos jo etukäteen! Pysykää terveinä!

13.5.2020

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Inbjudan till forskning

Hej!

Jag heter Riikka Aarnos och studerar specialpedagogik på Åbo Akademi. I mina studier ingår att skriva en pro gradu -avhandling. Jag har valt att forska om hur finländska speciallärare i grundskolan har upplevt undantagstillståndet under coronapandemin. Jag är intresserad av hur specialundervisning och specialpedagogiskt stöd har arrangerats på distans till de elever som behöver dem, vilka professionella utmaningar speciallärare har mött under våren och hur speciallärare har klarat av dessa utmaningar. Speciallärarnas perspektiv behövs för att kunna vidareutveckla praxis och verktyg för distansundervisning. Det är viktigt att säkerställa att speciallärarna får göra sitt jobb utan större problem även under undantagstillstånd.

Målgruppen för denna forskning är finländska speciallärare i grundskolan vars vardag har påverkats av denna exceptionella situation, och som undervisat på distans under våren. Jag vill intervjua ca. 5—15 finländska speciallärare antingen i telefon eller via någon videokommunikationstjänst (t.ex. Skype). Intervjun tar ca. 30 minuter.

För att underlätta min arbetsprocess bandar jag in intervjuer. Inspelningarna raderas efter jag har transkriberat svaren och förvandlat dem till en form där de inte längre kan kopplas ihop med den som deltagit i intervjun. Alla personliga uppgifter och allt som diskuteras under intervjun behandlas konfidentiellt. Information samlas in endast för forskningsändamål och förvaras inte längre än vad som krävs för behandlingen av data. Den enda person som kommer att behandla forskningsdata är jag.

Deltagare i intervjun har rätt att avbryta intervjun när som helst och hoppa över vilken fråga som helst. Om du har frågor, besvarar jag dem enligt min bästa förmåga.

Om du är intresserad av att delta vänligen skicka mig e-post. Har du några frågor går det alltid att ringa eller mejla. Mina kontaktuppgifter hittar du nedan.

Stort tack för din insats! Håll dig frisk!

13.5.2020

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Appendix 2

Intervjuguide

i. Innan intervjun börjar

- Berätta om dig själv: ålder, studier, bakgrund…

- Informera om…

- syftet med forskningen

- frivillighet

- anonymitet

- att intervjun bandas in

- sekretess och dataskydd

- hur länge intervjun kommer att ta

- Fråga om informanten har några frågor innan vi börjar

ii. Bakgrundsinformation

- Vilken är din yrkestitel innevarande läsår?

- Hur länge har du arbetat i undervisnings- och pedagogikbranschen?

- Ungefär hur stor är skolan / skolorna där du jobbar i?

- Hur många elever undervisar du?

- Vilka årskurser undervisar du?

- Vilka ämnen undervisar du i?

- På vilka stödnivåer är dina elever?

iii. Forskningsfråga 1: Specialundervisning och specialpedagogiskt stöd under distansundervisningsperioden

Specialundervisning, hjälpmedel och undervisningsmaterial

- Hur ordnades specialundervisning på distans i din skola med dina elever i praktiken?
- Vilka hjälpmedel använde du dig av?
- Vilka undervisningsmaterial har du använt i din undervisning?

- Hur fick elever och lärare de nödvändiga utrustningarna, t.ex. datorer?

Elevernas behov

- Hurdant stöd behövde elever mest?

Special-pedagogiskt stöd

- Hur gav du extra stöd för dem som behövde det?

- Hur betraktade du de olika stödnivåerna?

- Hur differentierade du din undervisning?

iv. Forskningsfråga 2: Utmaningar under distansundervisningsperioden

Utmaningar i allmänhet

- Berätta fritt vilka utmaningar du upplevde under undantagstillståndet?

    - professionella

    - elevrelaterade

    - teknikrelaterade

    - annat

- Har det skett en förändring i din arbetsbelastning?

- Hade du tillräckliga kunskaper att undervisa och stödja dina elever på distans?

Kommunikation, samarbete och handledning

- Hur fungerade kommunikation och samarbete med olika partier under skolstängningar?

    - föräldrar

    - elever

    - kollegor

    - andra

- Specialpedagogens roll kan också vara handledande. Hur har detta återspeglats i ditt dagliga liv under distansutbildningsperioden?

Coping-tekniker, stöd och hjälp

- Hur har du hanterat dessa utmaningar?

- Har du fått hjälp och/eller stöd för att hantera utmaningarna?

- Hurdant stöd skulle du ha behövt? Vad skulle dina elever ha behövt mer?

- Vad önskar du skulle ha gått annorlunda?

v. Det positiva med distansundervisning

- Om du tänker på ditt arbete, undervisningsarrangemang och stödåtgärder under detta undantagstillstånd, vad som har fungerat bra? Varför?

- Hur ser du på din professionella utveckling under skolstängningar?

- Vad har du tagit med dig till skolan från dessa tider av distansundervisning?

- Vilka positiva sidor har distansundervisning?

vi. Annat

- Hur kändes det att återvända till skolan efter distansundervisningsperioden?
- Hur skulle det vara att fortsätta med distansundervisning på hösten 2020?
- Hur skulle du kort sammanfatta dina känslor om och upplevelser av detta undantagstillstånd?

- Finns det någonting annat du vill tillägga?

vii. Efter den avslutande intervjun

- Tacka

- Fråga om informanten har några frågor innan vi avslutar

- Informera informanten om att det går att ta kontakt i mig i efterhand om ytterligare frågor uppstår

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Haastatteluopas

i. Ennen haastattelun alkua

- Kerro itsestäsi: nimi, ikä, opinnot, taustaa…

- Kerro…

    - tutkimuksen tarkoituksesta

    - vapaaehtoisuudesta

    - anonyymiydestä

    - että haastattelut nauhoitetaan

    - luottamuksellisuudesta ja tietosuojasta

    - haastattelun kestosta

- Kysy, haluaako haastateltava kysyä jotain ennen kuin aloitamme

ii. Taustatietoja

- Mikä on ammattinimikkeesi tänä lukuvuonna?

- Kuinka kauan olet työskennellyt opetus- ja kasvatusalalla?

- Kuinka suuressa koulussa / suurissa kouluissa työskentelet?

- Montako oppilasta opetat?

- Mitä vuosiluokkia opetat?

- Mitä aineita opetat?

- Millä tukiportailla oppilaasi ovat?

iii. Tutkimuskysymys 1: Erityisopetus ja erityispedagoginen tuki etäopetusjakson aikana

Erityisopetus, apuvälineet ja opetusmateriaalit

- Kuinka erityisopetus järjestettiin koulussa/kouluissa, jossa/joissa työskentelet?
- Mitä apuvälineitä käytit opetuksessasi?
- Mitä opetusmateriaaleja käytit?
- Miten oppilaat ja opettajat saivat tarvittavat välineet, esim. tietokoneet?

Oppilaiden tarpeet

- Millaista tukea oppilaasi tarvitsivat eniten?

Erityispedagoginen tuki

- Kuinka vastasit oppilaidesi tuen tarpeeseen?
- Miten otit huomioon eri tukiportaat (yleinen, tehostettu, erityinen)?
- Mitä oppilaasi olisivat tarvinneet enemmän?

iv. Tutkimuskysymys 2: Haasteet etäopetusjakson aikana

- Kerro omin sanoin, mitä haasteita kohtasit poikkeustilan aikana?
    - työhön liittyviä, esim. työolot
    - oppilaisiin liittyviä
    - tekniikkaan liittyviä
    - muita
- Tapahtuiko työmäärässäsi muutosta?

- Oliko sinulla riittävät taidot opettaa ja tukea oppilaita etänä?

Kommunikaatio, yhteistyö ja konsultointi

- Miten kommunikaatio ja yhteistyö eri osapuolen välillä toimi?

    - Vanhemmat

    - Oppilaat

    - Kollegat

    - Muut

- Miten erityisopettajan konsultoiva rooli näyttäytyi etäopetusjakson aikana?

Coping-keinot, tuki ja apu

- Miten olet selvinnyt haasteista?

- Oletko saanut apua ja/tai tukea selvitäksesi näistä haasteista?

- Millaista tukea olisit tarvinnut? Mitä oppilaasi olisivat tarvinneet enemmän?

- Mitä toivot, että olisi mennyt toisin?

v. Etäopetuksen positiiviset puolet

- Jos mietit työtäsi, opetusjärjestelyjä ja tukitoimia tämän poikkeustilan aikana, mitkä asiat ovat sujuneet hyvin? Miksi

- Kuinka näet oman ammatillisen kehityksesi koulujen sulkemisten aikana?

- Mitä otat mukaasi tältä etäopetusajalta lähiopetukseen?

- Mitä positiivisia puolia etäopetuksella on?

vi. Muuta

- Miltä tuntui palata takaisin kouluun etäopetusjakson jälkeen?
- Miltä tuntuisi jatkaa etäopetusta myös syksyllä 2020?
- Miten tiivistäisit kokemuksesi ja tuntemuksesi tästä poikkeustilasta?

- Haluatko lisätä vielä jotain?

vii. Haastattelun päätyttyä

- Kiitä

- Kysy, onko haastateltavalla jotain kysyttävää

- Kerro, että minuun saa olla yhteydessä myös jälkeenpäin, jos kysymyksiä ilmenee