

CASE STUDY ON TEACHERS' IN-SERVICE TRAINING NEEDS RELATED  
TO ACTIVITY-BASED LEARNING IN DISTANCE TEACHING

Pro gradu thesis

Malla Aletta Örn

0444572

Faculty of Education, Media education

Tuija Turunen

University of Lapland

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## University of Lapland, Faculty of Education

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Author(s): Malla Aletta Örn

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Summary:

In this study, I investigated what kind of in-service training needs teachers have related to activity-based learning in distance teaching; and what distance teaching experts and commencing distance teachers view being important in activity-based learning in distance teaching. Distance teaching is an important way to provide equal educational opportunities in the sparsely populated areas. Activity-based learning is frequently mentioned in the latest *Finnish National Core Curriculum 2014*, and thus its combability to distance teaching must be researched.

This research has been executed as a case study and the data was analyzed using thematic analysis. Most of the data are related to a workshop that was held at the teacher training school of the University of Lapland on 25<sup>th</sup> April 2019. I do not study the workshop per se, but it works as a dividing point for my data. The data set includes meeting memos, e-mail chains, Power Point presentation, comments about the themes that were covered in the workshop, e-mail interviews and phone interviews.

One notable result of this study was how much distance teaching experts' and commencing distance teachers' views differ on certain topics of activity-based distance teaching. Secondly, relying solely on workshops is not a sufficient way for in-service training related to activity-based learning in distance teaching. Tutoring could be implemented in teachers' in-service training, since it would support shared knowledge between teachers and other experts on the field.

Keywords: Activity-based learning; distance teaching and learning; distance education; activity-based distance teaching; case; thematic analysis

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# 1. Introduction

The purpose of this research is to study what kind of in-service training needs and wants in-service teachers have related to activity-based learning in distance teaching. I have concluded this study as part of the Finnish national project ArkTOP, which aims to develop arctic pedagogy, quality expertise, teachers' career-long learning, and shared knowledge in the field of education in the northern Finland (Arktinen uudistava ja tutkiva opettajuus). According to Norrena (2016, p. 11) in activity-based learning students should be physically active, participate into the class community and take part in planning their own learning. Activity-based learning is also emphasized and frequently mentioned at the latest *Finnish National Core Curriculum 2014*. (Finnish National Agency for Education). There is going on a search for new solutions for in-service training for teachers that would be based on a shared expertise and digitalization on a local level. The teacher training school of the University of Lapland coordinates and upholds the education development network between Lapland's municipalities, arranges different events and executes pilots that utilize digitality. (Arktinen uudistava ja tutkiva opettajuus).

As it is stated on the ArkTOP projects' webpage, one of the project goals is to develop and pilot different pedagogical solutions for distance teaching that could also be implemented on other sparsely populated areas and even nationwide. Based on this, I will also pay notice to teaching in sparsely populated areas and why distance teaching and learning is important in these areas. (Arktinen uudistava ja tutkiva opettajuus). For example, Kotilainen (2015, p. 192) and Øgaard, (2018, p. 11) have stated that distance teaching is justified based, for example, on attainability, on expanded subject supply, and for promoting equality in remote or sparsely populated areas.

Use of technologies in teaching supports various pedagogical principles that are connected to the basic principles of constructivist paradigm. The benefits that

have been noticed are, for example, the increase of self-direction, possibility for reflective interaction and guidance. Working in online learning environments can improve some students' learning results, since online learning is illustrative and diverse. (Kotilainen, 2015, p. 78.) Simonson, Zvacek and Smaldino (2019, p. 139) state that there is research which visibly shows that distance education is an efficient system for teaching and learning. Kotilainen (2015, p. 78) states that in distance teaching, and in other online learning environments, teaching can happen in real time synchronically, or asynchronously at a undefined time.

However, in the *Finnish Basic Education Act (628/1998)* it is stated that “education for pupils of compulsory schooling age must be arranged as contact teaching” and “The Basic Education Act does not enable education in distance teaching where student chooses the time and place for studying.” (Finnish National Agency for Education.) Therefore, I will only talk about synchronous distance teaching and learning; and by distance, I mean the geographical distance between teacher and student and possibly between the students. Simonson et al. (2019, p. 9) describe synchronous distance teaching and learning happening when: “Instruction can be delivered to different places at the same time when telecommunications systems are used”.

Most of my data are related to a workshop that was held at the teacher training school of the University of Lapland on 25<sup>th</sup> April 2019. The theme of the workshop was “activity-based distance language teaching”, which is close to my research. I will not study the workshop per se, but it works as a dividing point for my data. My data concludes of meeting memos, e-mail chains between distance teaching experts considering of planning the workshop, a power point presentation of the theory behind activity-based distance language teaching, e-mail interviews and phone interviews. Gillham (2000 p. 1 – 2) states that case studies should have multiple sources of data, since when studying a case, the purpose is to get a deeper look of the case and; therefore, just one source of data will not be enough or sufficient.

My theoretical framework will be based on the concepts of “activity-based learning” and “distance teaching and learning”. By activity-based learning Koskenkari (2013) means the activity of students’ actions and thoughts, experiences, participation and interplay that happen between students. Teaching methods that rely on an activity-based learning model are, for example, groupwork, debates, games, projects, drama, or other cooperative learning methods. These have been noticed to be effective learning methods because when using them, students participate actively in the learning process.

Simonson et.al. (2019 p. 3, 6) describe distance education being one of the biggest innovations in the field of technology-based education. They define distance teaching and learning being close to formal, close contact, education, but where the classmates are possibly in separate locations and where ICT systems exist to link students, teachers and resources. (Simson et al., 2019, 3, 6). Distance education is an extremely important tool when wanting to promote equal opportunities for all, especially in the rural areas. It is important that all people have the same opportunities and possibilities to basic education regardless of where they live.

Based on my theoretical framework, research questions and the overall goals of the ArkTOP-project I am going to research what kind of in-service training needs and wants teachers have related to activity-based learning in distance teaching. I also want to find out how activity-based learning and distance teaching and learning are combined.

## 2. Theoretical background

The theoretical background in my study is based on two concepts: activity-based learning and distance teaching. These themes are central in my study and they also play a big part in the ArkTOP-project. There is not research on how activity-based learning and distance teaching and learning can be combined especially in the primary and secondary school. Both of these concepts are central to my research, and at the end I should have results on what kind of training and education in-service teachers need so that they can properly use activity-based learning methods, while taking the limitations and possibilities of distance teaching and learning into an account.

I start by going through activity-based learning, and what are the main principles of it; in which situations it should be applied, what activity-based learning consists from, what are the benefits of it, and how activity-based learning can be implemented in schools. The second part of this chapter will cover distance teaching and learning; why do we need it, in which situations it can be used, the pedagogical solutions within distance teaching and learning and what kind of benefits and pitfalls it has.

### 2.1. Activity-based learning

The standard model for teaching has been seen as a traditional “activity”, where students sit still and solve the problems their teacher has given them. (Lompcher, 1999, p. 266.) Norrena (2016, p. 13) argues that this has not provided the wanted results and therefore, some teachers have moved to a more comprehensive educational methods which allows broader results that involves values and broader objectives. Pang (2010, p. 32) states that in contemporary view on learning it is seen that learning happens between the learner and their interaction with experience. This means that in activity-based learning students must have an understanding of themselves in the learning process while aiming for

metacognitive development (Pang, 2010, 32). Activity-based methods are tools for teacher to make the learning go towards more comprehensive direction. (Norrena, 2016, p. 13). The basic principle in activity-based learning is that learning happens by concrete doing with hands, with practical experiences and tasks. (Savolainen, Jyrkiäinen & Eskola., 2018, p. 167; Santally, Rajabalee & Cooshna-Naik, 2012, p. 7-8).

Activity-based learning means the students' active actions and thinking during the learning process. Physical activities are used in versatile manner in activity-based learning to achieve the wanted learning results. (Leskinen, Jaakkola & Norrena, 2016, p. 14.) Koskenkari (2013) states that when doing activity-based learning tasks students converse with each other and with the teacher, which then again makes the students to practice on how to take others into account, how to resolve conflicts, how to be flexible, listening to others and how to reason their arguments. Leskinen et al. (2016, p. 14) also state that during the learning situation, the students get different experiences and insights to the matter at hand. The activity happens in interaction with other students, teacher and other close people. Activity-based tasks drive aim to further students' activities, actions, participation, experiences and interaction. (Leskinen et al., 2016, p. 14.)

Leskinen et al. (2016, p. 14) state that activity-based learning adds value to learning in lot of different ways, and they can be divided in different groups: psychic, physical, cognitive and social benefits. Activity-based learning enhances students' own activity and makes learning more comprehensive (Leskinen et al., 2016, p. 14). Foster, Parfitt, MacGovan & Brookes (2010, p. xi) have studied that children learn best when they are doing tasks related to the subject and talking about their experiences, this makes them active learners. When children talk about the learnt subject and when they do tasks related to it, it allows them to rework the learnt subjects, but in their own words (Foster et al., 2010, p. xi). Also, Ranganath (2012, p. 17) states that the essence of activity-based learning is to use activities to integrate learning to students' already existing knowledge.



Leskinen et al. (2016, p. 14) describes that by gaining success and experience while studying, it will make students feel more accomplished and this furthers their motivation and joy of learning. Also, students' self-esteem and self-knowledge will likely to rise to a higher level, and their study skills, creativity, empathy and imagination develop too. Learning is pleasant for the student when they retrieve information in new ways and from different sources, it supports their ability adapt knowledge and skills in a creative way while students' participation activity grows. (Leskinen et al. 2016, p. 14.) However, Foster et al. (2010, p. xii) state that after doing activity-based learning tasks, it is important to have joint conversation about them in class. This makes it clear that activity-based learning is not unconnected work but a whole learning process (Foster et al., 2010, p. xii).

Learning is an active process where knowledge is being constructed through competence development and distinct activities and interaction with environment. Interaction with peers, group reflection and discussion are factors that makes it possible for students to challenges their own views and representations; thus, making possible to add on to their already existing knowledge (Santally, Rajabalee, Cooshna-Naik, 2012, p. 7-8.) When students study together, they converse, make agreements and negotiate which is a natural way to enhance cooperation and social skills between students. In groups it is necessary to listen and pay notice to others and to compromise from own opinions, but also justify them. These things are the basic cooperation skills that people need. In activity-based learning it is easy for students to pay notice to different kind of learners, because students get a chance to express themselves in non-traditional ways (Leskinen et.al., 2016, p. 14.)

According to Leskinen et al. (2016, p. 14) activity-based learning enhances in diverse ways students' own activity from four different perspectives. The first one is students' own participation. This means that in activity-based learning teacher and students both take part in planning of the activities, preparing them, producing them, presenting them and finally evaluating them. The second one is the personal experience of the student. This means that when students put to use

their own experiences and skills, the matters at hand feel more meaningful. Personal experiences help to remember things, helps to find insights within themselves, others and the surrounding world. The third one is individuality of learning. In every classroom is different kind of learners, so activity-based learning tasks helps to diversify teaching and directing so that everybody gets the teaching the need. Activity-based learning also makes it possible to use different senses and learning styles. The fourth one is communal learning, in activity-based learning it makes the development of interaction skills possible. Activity-based learning enhances the fellowship and togetherness of the class (Leskinen et. al., 2016, p. 14.)

Salo (2019, p. 9) argues that in the best class activities everybody feels that they are an important part of the class community. Leskinen et al. (2016, p. 14) state that all activities should have a goal to which everybody aims for. Solidarity and cooperation within the group is important in all groups and in all ages because the sense of “us” improves the learning results, working, participation and thriving in a group (Leskinen et. al., 2016, p. 14). Activity-based learning involves a high level of interaction since the assignments and tasks are done in active environment and; therefore, activity-based learning requires a highly skilled teacher and the teacher must act more as a facilitator than a teacher. The teachers’ job, besides facilitating, is to coach, motivate and enable students, instead of lecturing them. Teachers should drive to move away from the traditional teacher-student hierarchy (Suraj, 2014, p. 3; Ranganath, 2012, p. 17; Pang, 2010, p. 29)

Staikopoulos et al., (2014, p. 344) argues in their study that people learn best when the learning happens through activities, through students’ preferred learning modes and when the learning experiences meets the learners needs. In activity-based learning some of the responsibility of learning is placed as a students’ own responsibility, and it happens through practical activities. If the students’ want to really understand the subject at hand, they must engage with it actively for example through workshops, field trips and social interactions (Staikopoulos et al. 2014, p. 344.) Leskinen et al. (2016, p. 14) add on that studying does not

happen exclusively within school boundaries, but during visits to companies, villages, cities and in nature, this gives the students needed tools for the future for example way to sort information. School subjects are studied from versatile sources and in versatile ways; this gives the students broader picture of the subjects at hand and the connections between them. (Leskinen et al., 2016, p. 14)

When designing learning environments, it should be taken into notice that the learning environments are adaptive and include versatile learning activities. The information in these learning environments should not only be accessible and retrievable, but the activities should also be the sort that can be experienced (Staikopoulos et.al., 2014, p. 344.) Activity-based learning can also happen in the digital learning environments, when special notice should be paid to the physical solutions and how different senses are being taken into account during the study process. (Savolainen et.al., 2018, p. 166.)

Savolainen et al. (2018, p. 167) have stated that in activity-based learning the pedagogical approaches include cognitive, social or physical activities. It is important that the teacher who uses activity-based learning methods in their teaching is acknowledging different learning styles. Self-regulation, constructive communication with students and between students, feeling of a community in the classroom, and feelings of being a part of something can be pursued by using activity-based learning methods. (Savolainen et.al., 2018, p. 167.) When activity-based learning models are being designed, the aim should be on improving understanding, motivation and advance deeper learning. Activity-based learning should be promoted through constructing knowledge through active learning and meaning-making. Also, the learning event should happen student centered and, in a space, where the activities can be managed. (Pang, 2010, p. 32.)

In the Finnish National Core Curriculum 2014 activity-based learning is related to students' activity, concrete doing, playing and to own responsibility in the learning situation. Activity-based learning is as a natural way for the students to learn, especially when it comes to understanding concepts. Activity-based learning also

includes conversations and interaction. Highlighting students' own thinking and imagination is also one of the key concepts of activity-based learning. Using these methods, the learning becomes more active, group work skills get better, students can focus better, and also their self-esteem and self-knowledge gets better. This also develops students' metacognitive skills that include self-evaluation and self-regulation (Savolainen et al., 2018, p. 165-166.) Activity-based learning is not tied to any particular subject, but it can be used in all subjects and be integrated to all of the school day. Activity-based learning also enables students to be more active during the school day. (Savolainen et.al., 2018, p. 166.)

In the Finnish National Curriculum 2014 it is stated that games, physical activity, experiments and others activity-based methods enhances the joy of learning and the possibility for creative thinking. Learning happens through senses between student and their environment thus, creating the opportunity for students to select, work and make interpretations from information. The key factor in the learning process is the students' will and ability to work and learn alone and in a group with other students (Savolainen et.al., 2018, p. 167.)

## 2.2. Distance teaching and learning

Distance teaching is not a new phenomenon and can be traced even to the 1800's. Back then distance teaching and learning were carried out as correspondence courses (Dumont & Raggo 2018, p. 42 – 43). Later on, after advancements in technology, distance teaching was developed into a "school of the air". The school of the air helped to reach children in the remote and sparsely populated areas via radio, which gave them a possibility to communicate with the teachers, have a schedule and be in contact with other students. (Nevskaya, 2018, p. 200.) Since the internet has become widely available, distance teaching and learning have been seen as a progressive tool that helps to develop the field of education. Distance teaching and learning enables more personal learning

paths and promotes self-regulation (Øgaard, 2018, p. 11; Santally et.al. 2012, p. 1.)

Øgaard (2018, p. 12) states that the differences between ICT and distance teaching and learning are important ones, since their main focuses are not always the same. Nowadays distance teaching is somewhat dependent on ICT, but ICT-based education is not necessarily the same as distance teaching and learning. Yet, it is important to notice that ICT should not be the aspect that defines distance teaching and learning but should be considered as a means to enable pedagogical practices. ICT should not be used just for the sake of ICT, but it must have pedagogical foundation. (Øgaard, 2018, p. 12.)

The key to planning distance teaching and learning is the fact that the technology and choice of ICT programs should always be made based on the pedagogical solutions, not the other way around. The main point is not the use of ICT, but more how they are used in teaching, learning and studying. Studying online makes it possible to pay more attention to different learning styles and different kinds of students. This can happen when ICT solutions are right and efficient, and support learning in the areas and levels where individual differences have been blocking the learning process. (Kotilainen, 2015, p. 74.)

In synchronous distance teaching, the interaction between teacher and student happens simultaneously in real time. This requires adequate equipment to make distance teaching serve its purpose functionally, since all the interaction; lectures, group work, questions to the teacher and joint conversations, happens synchronously. Aside from the equipment, all participants need high-speed internet to be able to take part in the lesson. (Dumont & Raggo, 2018, p. 42 – 43; Petterson & Olofsson, 2013, p. 360.) When discussing distance teaching and learning, the financial aspects easily take control, instead of focusing on the benefits that distance teaching and learning could provide for between teacher and student (Øgaard, 2018, p. 12).

It is important that students learn to: form and share messages, use media practically, use communication and media tools in an acquisition of information, distribute information, and act in different kinds of interaction situations (Kotilainen, 2015, p. 73). In distance teaching and learning, there should be problem-based learning, communication between all participants and possibility for differentiating teaching and learning. Multimedia and other ways that support multiple sensory options should be included in distance teaching to make it more suitable for students with different learning styles; these different multimedia could be for example video clips, graphs and audio files. (Brunet, 2011, p. 37 – 38.)

Distance teaching and learning have lots of benefits that are related to the study material. When teaching from a distance and using e-learning environments, it is easy to update and create material. It gives a possibility for teacher and students the potential to combine text with moving images and other multimedia. There is a greater chance for the student to find material that supports their work and, most importantly, it increases the students' chance for more independent work. (Ramesh & Sanjaya, 2007, p. 4 – 5; Brunet, 2011, p. 37.)

It is the teacher's responsibility to make sure that the learning situation and learning environment support the student's learning processes. The teacher creates the learning environment and guides the learning processes in direct and indirect ways. If support and guidance are not available, the differences and challenges in learning environments can turn into obstacles for learning. (Kotilainen, 2015, p. 64 – 65.) O'Donnell (2006) states that in education, the use of technology can have a positive effect on learning in primary and secondary schools. The positive effects accrue, however, only when teachers are qualified and technology use is focused on pedagogical needs (O'Donnell, 2006, p. 1; Ramesh & Sanjaya, 2007, p. 5; Hyeonjin & Hannafin, 2011, p. 1). When using technology and digital tools in learning, teachers need to develop their professional competence throughout their career and they must be provided sufficient support (O'Donnell, 2006, p. 1). Howley, Wood and Hough (2011, p. 3 – 4) found in their study that teachers who

teach in rural areas have more positive attitudes towards using technology than teachers who teach in non-rural areas.

When designing learning environments for primary school children, it needs to be a right mix of student autonomy and certain schoolwork structures and practices. In distance teaching, it is important to create voice and image link because simultaneous voice connection and image link is a central part of a learning situation. In practice this means the feeling of classmates being present in the situation and that you are also part of the group. Students might also prefer to work alone, but are happy nevertheless, when they know that help and support is available, and that they have a chance to share their feelings and ideas with classmates about the subject at hand. (Kotilainen, 2015, p. 165.) Distance teaching and learning can also help students who are shy or might be intimidated of their classmates in face-to-face situations, thus giving all students more equal way to participate. (O'Donnell, 2006, p. 2.)

Communication is one of the key parts in distance teaching; it is important that students do not feel insecure or get frustrated for not knowing what is going on in the class. Interaction between students and teachers, and between students is one the most important aspects of education. Yet, there are possible pitfalls in communication in distance teaching and learning, if not properly planned it can be expensive and it will not have real purpose. Communication just for the sake of communication should be avoided. (Kotilainen, 2015, p. 166; Anderson, 2010, p. 5.) On the other hand, Øgaard (2018, 15 – 20) states in his study that active video cameras and smartboard with a video connection are important technological setups in providing quality distance teaching and learning. Most of the communication happens through the cameras and smartboard. Having cameras and smartboard with video connection enhanced pupil's self-regulation, self-surveillance and morals. (Øgaard, 2018, p. 15 – 20.)

Groupwork and social interaction in online world does not just happen by itself, albeit it has strong social components. Creating social interaction still needs

support from teacher and other facilitators to be constructive and enable learning. (Salmon, 2011, p. 36.) Brunet (2011, p. 35) also states that interaction must be purposely integrated to the teaching, and just the presence of computers will not make interaction and communication happen by itself. Communication and interaction must be created with thought and by design. He also argues, that classes with high interaction result into better learning results. Especially communication and interaction between teacher and student is important factor to enhance students learning results. (Brunet, 2011, p. 35.)



### 3. Research design

#### 3.1. Research problem

One of the main concerns in using distance teaching is the possibility that the technology will come more important aspect than the pedagogies. As it was mentioned in the chapter 2.2. distance teaching and learning ICT should always be just the tool through which pedagogical implementations are implemented. So, it is extremely important that the pedagogical solutions used in distance teaching and learning are well thought out and implemented.

Activity-based learning has been described as an effective pedagogical approach all in primary schools, secondary schools and even in higher education. Activity-based learning increases the students' activity, which is important in distance teaching and learning since working physically alone does not necessarily provide for social interaction with peers, classmates or teacher. This is when activity-based learning comes in when talking about synchronous distance teaching and learning.

The main research problem in this study is:

*What kind of education needs teachers have related to activity-based learning in distance teaching?*

The sub research questions are:

*What distance teaching experts view being important in activity-based learning in distance teaching?*

*What teachers who have little to none experience of distance teaching view being important in activity-based learning in distance teaching?*

With these research questions I aim to find out how activity-based learning and distance teaching and learning should be combined. I drive to find the solution for

this problem by conducting a case study of a workshop that was held in 24<sup>th</sup> May 2019 in Rovaniemi. The workshop itself is not an interest in my study per se, but it works as a divider in my data. I have gathered data from the planning phase of the workshop, from part of the workshop and after the workshop. By researching these materials, I aim to find out what kind of education needs teachers have related to activity-based learning in distance teaching.

### 3.2. Qualitative Case Study Research

I will do my research a qualitative case study, since the aim of my study is look into the “why” and “what” aspects of this case. I want to find out what teachers and distance teaching experts expect and want from in-service training that is related to activity-based learning in distance teaching and learning. Yin (2012, p. 10 – 11) describes that case study research can be qualitative and quantitative. Qualitative study refers to non-numeric data, that studies for example stories, observations or literature. The aim of qualitative case study research is to look into case (or cases) in real life setting, which would then hopefully deepen the understanding of the matter at hand. The researchers focus in case studies is to understand the complex relations of the case. (Yin, 2012, 4, p. 10 – 11.) This is exactly what can be seen in my study. In this research, the matters that are covered are very complex by the nature. There are several people in this case, and they all their own individual views on the matter. Everybody has their own backstories, opinions and views on how to combine activity-based learning and distance teaching and learning. My study is situated very much in a real. life issues that have very concrete foundations. As Gillham (2000, p. 7 – 10) states, case studies should be happening in the real world, and they should always be studied in their context. Like qualitative studies in general, the focus is on the evidence that would help to understand the meaning of what is going on and the underlying reasons behind it (Gillham, 2000, 1, p. 7–10).

The research questions in case studies should either be explanatory “how” and “why” questions, or explorative “what” questions. These questions help the researcher to explain the causalities, but since they are descriptive questions, it’s hard to make generalizations based on them. (Järvinen&Järvinen, 2011, p. 77.) Since my goal in this research is to look into concrete problems which are qualitative by nature. In this research there are two different kinds of backgrounds that I am looking into. There the distance teaching experts who took part in the planning of the workshop and there are teachers who have little to none experience on distance teaching; therefore, there are very different views on the matter and different things are considered important. Metsämuuronen (2006, p. 212) states that in most cases, case studies are not to be generalized. But if the researcher is making multiple case analysis from same subject, they can find results that can be generalized. Generalization nevertheless cannot be the main purpose of case study research, it should always aim for deeper understanding of the case (Metsämuuronen, 2006, p. 212).

My data consists from several different sources: meeting memos, e-mail chains, presentation slides about theory, e-mail interviews and phone interviews. Using several different data sources gave me a wide-ranging view on how the workshop was conducted and why the matters that were included were included. Yin (2012, p. 6) states that case study is an empirical research branch that uses diverse ways to gather information and data and it researches current events, people or organizations, in certain environment. Metsämuuronen (2006, p. 210 – 211) have argued that one of the problems in case studies is the definition of the word case, since almost anything can be a case: individual, group, school, customer, patient, hospital and so on. But as stated before, one of the most definable things in case study is the way information is gathered. It should be gathered with varied methods and the end result should be a diverse bunch of information from different sources, that helps to understand the case more deeply (Metsämuuronen, 2006, p. 210–211.) This was also an important question for me when deciding on what research method to use. The case in this study is hard to define, and the most definable aspect in this study is the way that the data was gathered. The case in

this study are the teachers who need in-service training related to activity-based learning in distance teaching. Gillham (2000, p. 1 – 2) has defined that in case studies, there is not just one type of material that be sufficient for the research, because when studying a case, the purpose is to get deeper look in the matter and therefore just source of material will not be enough or sufficient.

Stake (1995, p. 3) has divided case studies in two different categories, instrumental and intrinsic studies. This division is concerned with the matter of how the researcher came to study the case. In instrumental case study, the drive to research certain case comes from within the researcher. The researcher notices something interesting or puzzling and that they feel they might get an insight to the topic by studying the case. In intrinsic case study, the research topic is given to the researcher and the topic isn't chosen by the researcher. The reason for the study in this case doesn't come from within, but from a need to study the case. (Stake, 1995, p.3.) My study falls into both, instrumental and intrinsic, study categories. My study can be defined as an intrinsic study, since the original inclinations for me was to do research about distance education. On the other hand, my study is also instrumental study, since I am doing this research as part of the ArkTOP-project. Doing a research as part of a project put s some limitations on the way the research is done and what are the details of the research. Thus, my research falls in both categories.

Yin (2013, p. 27 – 28) has stated that taking theoretical background into consideration is one of the most important things in any research. In case study research there is a need to look for preliminary theoretical concepts so that one can define the outlines of the study. For me in my study, there were extremely important case studies that were related for my research. For example, a case study: *Conventional Classroom Teaching Through ICT and Distance Teaching. A Case Study from Greenland* by Anders Øgaard, has been a great example and a study that supports my research and is closely connected to it. Like Yin (2013, p. 27 – 28) has stated, there is a need for consideration of how the research relates to previous cases or previous research of the subject. When this happens, it is

easier to see how ones' own research advances the previous knowledge of the subject. Theory helps the researcher to choose the case they want to study and after that to help to compare the results to other cases. (Yin, 2013, p. 27 – 28.)

In case study research it is customary, that the theoretical background is formed after data collection and preliminary analysis. This is because, before gathering the data and starting to analyze it, you will not have sufficient knowledge about what theory would work best for the research. (Gillham, 2000, p. 2.) In inductive research the researcher doesn't make preliminary hypothesis, but they come and go while analyzing the data. When forming the research this way, the researcher first gets the analysis done and after that he looks what theory would fit their analysis results. (Kananen, 2008, p. 85.) I have not used any specific theory in my study, but I have theoretical background that serves as a comparison material for the results conducted from the data. When I started to work on my research, I started by looking into the most central concepts related on my subject: activity-based learning and distance teaching and learning. I read about those concepts but did not start to write about until I had concluded the preliminary analysis.

However, Yin (2012, p. 9 – 10) has stated that is up to the researcher if they want to use theory to form the required steps in methodology. The steps are: forming the research question, choosing the case and, deciding what data is relevant and compatible. If the case study is built on with theoretical proposition, it is easier to connect the theory with analysis results. The theory does not have to be one big theory, but it can bring forward relationships between the theory and analysis results. This, nevertheless, isn't always necessary, you can also start doing your case study without firm theoretical background. It might be seen as taking a chance, but it can produce something new and different. (Yin, 2012, p. 9 – 10.) For me it was a right result to make the preliminary analysis first, since I did not know what would come up after the analysis. After the preliminary analysis was done, it was easier to see, what theoretical concepts would be important, and what aspects of them should be highlighted.

When analyzing case study, it is extremely important for the researcher to remember the fact that the data does not speak for itself. All that is found from the data, is from the researcher. The researcher has paid attention for those matters for a reason; maybe they are the things that the researcher expected to find and therefore found them. The researcher is paying attention for the things that help them find the answer for their research question; and those answers do not rise from the material themselves but as a result of the researchers work. (Yin, 2012, p. 15 – 16.) As for what Yin has stated, I have paid notice to it in the results chapter. Whenever I am making interpretation, I drive to explain the reasons for it carefully and by referring to data, to the theoretical background and to other scientific sources. This will help to keep the deduction chain as clear as possible. Kananen (2008, p. 84.) has stated that the data used in a case study should be presented in a way, that the reader can follow the deduction chain and it will help to improve the reliability and credibility of the study.

### 3.3. Data Collection

As mentioned in the previous chapter, the data for case studies should come from a variety of sources. Yin (2012, p. 10) has defined six commonly used sources of evidence for case studies: direct observations, interviews, archival records, documents, participant-observation, and physical artifacts. These six sources can be used in any combination, but the study does not have to include all of them. In my study I have used interviews, documents and physical artifacts. I conducted two different interviews; the first was an e-mail interview with both open-ended, and closed questions. The e-mail interview was sent to all the people who participated in the workshop; out of twenty-three people five answered. In the second interview I interviewed three people via telephone. All the questions in this interview were open-ended. The documents I have used in this study are meeting memos, e-mail chains, and information letters. The physical artifacts I have used is a set of slides used in the workshop. The slides include the educator's own notes, their original work, and their educational material.

Yin (2003, p. 97 – 105) lists three principles of data collection. The first principle is to use multiple different sources. Use of multiple different data sources helps the researcher to find contradictions and opposing views on the case. The second principle is to form a database for the case study. The researchers' previous reports and evidentiary base forms the database. The database is formed from interview notes, observations, analysis results, documents, charts and narratives. The third principle is to maintain the chain of evidence; it supports the reliability of the case when every finding has been reasoned thoroughly, and also gives the reader a chance to follow the deduction chain. These factors can explain the connections between the research question and the findings.

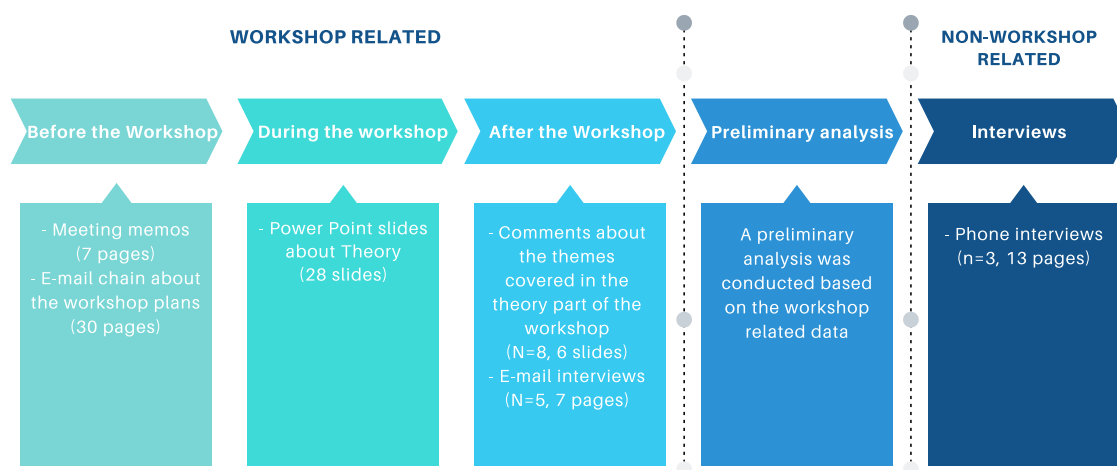


Figure 1 The data material used in this study

The data that I use in this study can be divided into two different categories: workshop related material and non-workshop related material. The first set of data is related to an “activity-based distance language teaching workshop” that was held on 25<sup>th</sup> April 2019. This material can be further divided into three different categories; the material before the workshop, the material used in the workshop and the material that was gathered after the workshop. In addition to the workshop materials, there is the interview material, which is not strictly related to the workshop but rather to the thoughts that teachers’ have about activity-based distance teaching and learning.

The data in this study is wide-ranging, from meeting memos to interviews. Most of my study revolves around the workshop that was held on 25<sup>th</sup> April 2019 at the teacher training school of University of Lapland. However, the workshop should be seen as a dividing point, this study does not study what happened at the workshop but more of what the distance teaching experts considered important to cover in the workshop. Therefore, the contents of the workshop are not studied apart from the theory-based slides that were used in the workshop. I decided to include those because they include concrete theoretical point of views if the topic.

The first part of the workshop material includes thoughts and plans for the upcoming workshop. I have three meeting memos that all regard the upcoming workshop. A big part of the material is taken by an e-mail exchange that is related to the planning of the upcoming workshop, between ArkTOP employees and other distance teaching experts. The second part of the workshop related data is the material that was used in the workshop; a presentation that covers blended learning in distance teaching and learning setting,

The third and final part of the workshop related material was gathered after the workshop. This part is concluded from the e-mail interviews. A brief e-mail interview was sent to all people who participated in the workshop, to which five people responded. A preliminary analysis of the data was made, and further interview questions were formed based on the results the preliminary analysis. Three people were interviewed extensively via telephone and the interviews lasted from 10 to 17 minutes. The goal of the interviews was to deepen the preliminary analysis that was made before these interviews.

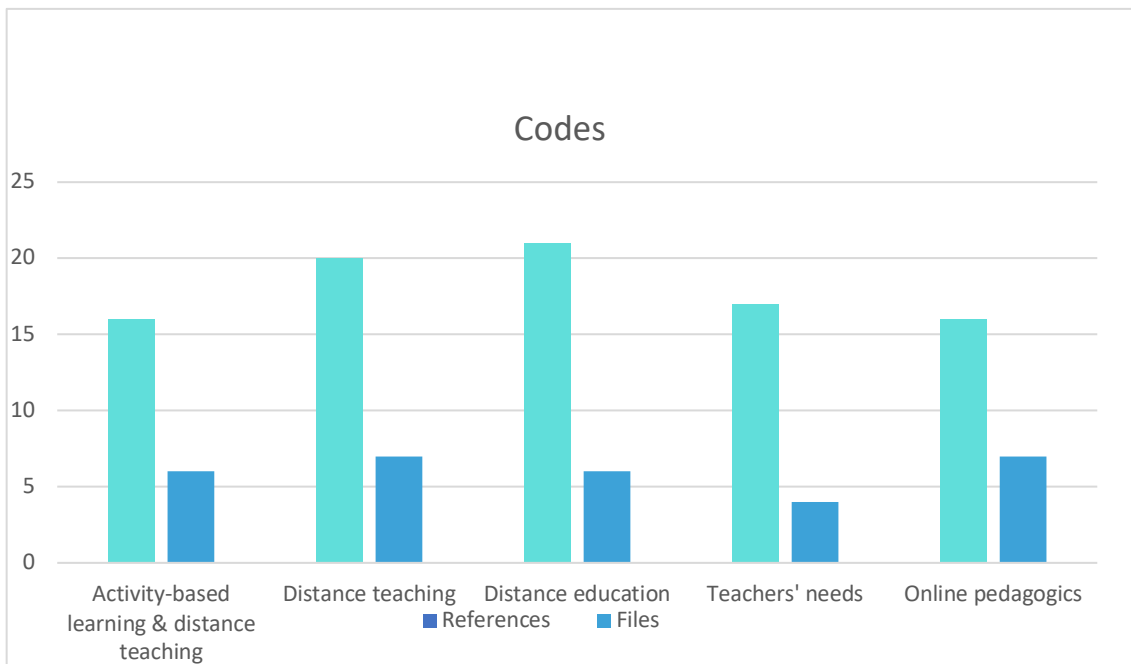
### 3.4. Thematic Analysis

I decided to use thematic analysis as an analysis method since it works well for resolving practical issues (Eskola & Suoranta, 1999, p. 179.) Thematization is necessary skills in qualitative research since it helps to find meanings and



patterns from the data and it allows to form models of human behaviors, thinking and feeling. Thematic analysis is a systematic and analytical way of interpreting qualitative data while keeping the analysis transparent. It is also well suited for illustrating the subjects' conceptualization of the case that is being studied. (Joffe, 2011, p. 210 – 212.) This was one of the most important factors for when choosing the analysis method. It was important for me to find patterns and chains of thoughts from the data, since I want to research the education needs of teachers. I also wanted to know what kind of difference are between distance teaching experts and teachers who have none-to-little experience in distance teaching.

I started by gathering all the data I had to NVivo. When all the material I had, was transferred to NVivo I started to read them though. According to Joffe (2011, p. 215) the researcher must find a way to classify, understand and examine the data. After that the researcher needs to start constructing a “coding frame” that will guide the analysis. The coding frame should be built on to the observations made from the data set and on to the theoretical background. This makes the coding frame versatile and more credible since it is based on both inductive and deductive observations. (Joffe, 2011, p. 215.) I formed codes on the basis of the theoretical background and research question. I made five different codes, Activity-based learning + E-learning, distance teaching, education of teachers, education needs of the teachers and online pedagogies. As you can see in the figure 2 I counted how many files and references each code includes. By file, I mean specific data file, for example one meeting memo or one e-mail interview. By reference I mean the references that were made to the texts in the files, for example one sentence or paragraph from the e-mail interview file.



*Figure 2 Codes from theoretical background*

In activity-based learning & e-learning code, there were 16 references in 6 files. In distance teaching code, there were 20 references in 7 files. In teacher's education code, there were 21 references in 6 files, and in teacher's needs code, there were 17 references in 4 files. In online pedagogics code, there were 16 references in 7 files.

From the figure 2 above it is possible to see, that all codes and references are in good balance. This breakdown from the theoretical concepts and research questions helped to connect the results to a wider theoretical framework. This was also an important part in confirming that the theoretical framework is formed on the right hypothesis and that all important concepts can be seen in the data.

In thematic analysis the goal is to find and analyze patterns of meaning in the data. This helps to display the themes that are important to the case and phenomena, and it helps to point out the most central meanings of the data. In thematic analysis, theme is defined to be a specific pattern that can be found in the

data. The data might include content that are evident e.g. patterns that clearly come up in every interview, which are rather easy to identify. The data can also have content that is hidden e.g. indirect references that requires more interpreting. Themes are the patterns, that can be found from the evident and indirect parts of the data. (Joffe, 2011, p. 209 – 210.)

I used the theoretical background here to verify that it is possible to use the data in this research. This was important for me to affirm since I did not collect most of the data, I only did the phone interviews, that the data is suitable for my research. According to Joffe (2011, p. 209 – 210) In thematic analysis it's up to the researcher, whether they want to draw the themes from the theoretical background and thus do a deductive research, or if they want to draw the themes from the collected data thus making the research inductive. Thematic analysis isn't tied to any specific theoretical outlooks, so it can be used with variety of methods (Joffe, 2011, p. 210 – 211). To make the actual analysis I used Affinity Diagramming, also known as KJ Method, to form themes and categorize the findings on their own without depending to theory. Affinity diagramming is service design tool, but it can be applied to thematization of research. It is used to cluster and externalize meaningful observations and insights from a research. These things are written on individual sticky notes, so that the information stands on their own, but can be clustered with others thus creating larger themes (Martin & Hanington, 2012, p. 12 – 13.)

I formed my affinity diagram using MIRO app, which is a virtual board with virtual stickers and so on. I wrote down the points, that I had earlier categorized based on the theoretical background, on sticky notes with mentions from which data source they were initially collected from. I ended up having 81 sticky notes. After that I started to gather them to groups based on their information, for example sticky notes that were about "class spirit" or "the joy of doing things as a group" were collected in to one group. Under, in the figures 3-6, you can see the actual process of creating themes from the material.



Figure 3 Start of the thematisation

As can be seen in the figure 3, I started the process by creating “sticky notes” where I added the references from the data set. I broke some of those in parts so that they would be sensible to analyze, for example if one reference had two or more different factors. Under, in the figure 4, can be seen the type of references I wrote down in the sticky notes. In the figure 5 you can see the first thematic groups.

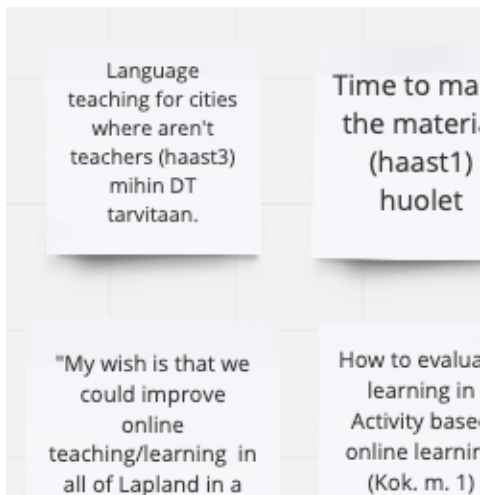


Figure 4 Example of the sticky notes

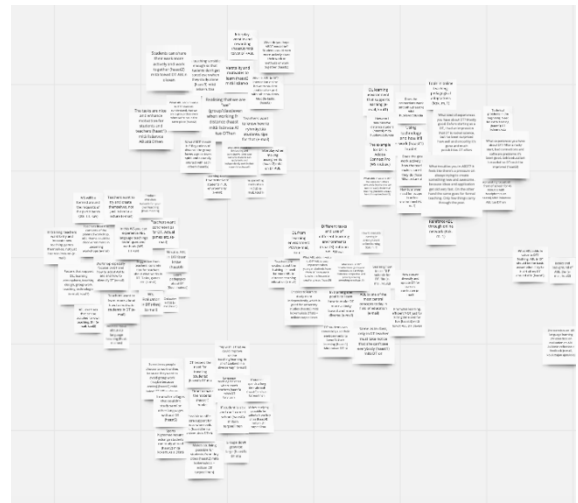


Figure 5 Start of the grouping

When these groups were done, I looked through them again, made changes if necessary and moved the clusters close to others that had similar topics in them. From here I was able to form subthemes based on the information on the sticky notes, for example interplay, versatility and togetherness. And looking through these themes, I formed the actual big theme of activity.

After the themes were clear, I started to look into the subjects even more closely. Under every subtheme I put the sticky notes that had interview results on them to other side, and the planning phases on the other side. This led to an interesting observation, that all the matters that came up in the interviews didn't come up at all in the planning phase of the workshop at all. This also happened the other way around, things that came up in the planning phase of the workshop didn't come up at all in the interviews. Under, in the figure 6, you can see the finalized groupings. Based on these themes and groupings, I made the questions for the phone interviews.



Figure 6 Preliminary thematisation

Open and semi-structured interviews, focus groups and textual data tend to be the base of thematic analysis, but also essays, video material, open ended questionnaires and diaries can be thematically analyzed. When the researcher starts to analyze the data, they first make preliminary analysis, and after that they gather more material and then finish the analysis. (Joffe, 2011, p. 212.)

First, the researcher forms the categories based on the data set, and when that is done, they can start to analyze them. The researcher should look into the connections between the categories and how prevalent the themes are. From the data may arise factors that can't be categorized but which might be important, this is a question that the researcher must try to find answer within the context of their research. (Joffe, 2011, p. 217.) As a result, I formed four different categories that are formed from subthemes, that can be seen above in the figure 6, the themes and their subthemes are: Activity with subthemes of versatility, interplay and togetherness; Technological issues with subthemes of Time, Does it work? and online learning environments; Pedagogical implementation with subthemes of games and tasks, motivation, monitoring and evaluation; and Diverse situations with subthemes of distance and diverse situations.

If the researcher chooses to highlight the themes in the light of theory, it allows them to look into how certain themes present themselves in the theoretical framework. The researcher must first find the themes that are relevant in the context of the research question, and then to arrange them in relation with the theory. You can find a collection of answers than just the answer to your research question (Eskola & Suoranta, 1999, p. 175–181.)

Conducting the analysis this way limits the researcher's possibilities on content that naturally occurs in the data. The danger in inductive research lies in the fact that the researcher might just "re-invent the wheel", if they are not aware of the already existing theories. For these reasons the best outcome in thematic analysis comes, when both deductive and inductive approaches are being utilized. Using deductive methods, the researcher makes sure that they aren't duplicating previous results by accident, and by using inductive methods there is room and possibilities for new findings to emerge (Joffe, 2011, p. 210). For the reasons listed above by Eskola & Suoranta (1999) and Joffe (2011) I made my analysis as deductive but used inductive research to affirm the usability of the dataset I had.

In thematic analysis there is a set of data that needs to be described, it isn't enough if the researcher just finds quotes from the data that support their research questions. The goal for a researcher is to reflect the data within the context of thoughts that are connected to the data. When conducting thematic analysis, it is important for the researcher to form a transparent trail of how they collected the data and how it was analyzed. (Joffe, 2011, p. 219.) This is exactly what I have aimed to do in my research. The data was collected in longer period of time, it is very versatile, and it is collected from different sources and by different people, so it was extremely important for me describe in detail the data I have used.

### 3.5. Ethical considerations

In my study, I drive to find new solutions and outcomes for educating teachers who are already in workforce. My aim is to create new outlooks and hopefully to increase knowledge in the science community as Kuula (2013, p. 25) states that creating new information and knowledge are one of the most fundamental values in science and in scientific research. The assumption is that goals and methods set by science will drive to the best results when searching new knowledge and understanding

Kuula (2013, p. 25 – 26) has stated that there are four norms that form the ethical standpoint in scientific research: universalism, communism, altruism and systematic doubt. The first one is the standpoint of universalism means that e.g. the religion or nationality of the researcher shouldn't affect to the acceptance of the researchers claim. This one is not a relevant concern considering my study, since this study's topic is neutral and it is not tied to any nations, nationalities or religions but can be adapted and used in various settings, depending of each country's national curriculums and teaching traditions. The second norm from Kuula (2013, p. 25 – 26) is the standpoint of communism. This means that the results of research should be public and in use of all of the science community; it is also expected from the researcher to publish and share their observations and deductions openly. In my study this will happen when the study has been completed and it will be added to the collections of the library of University of Lapland, where it is available for everybody. Also, Cohen, Manion and Morrison (2011) state that it is important to make the resources available for others. It is also stated that the results of the study should be beneficial for the group that is being studied and for society. In this study this is achieved by distributing the results to the ArkTOP-project and to all who part took in the research. The foundations of this study is to achieve beneficial outcomes that could be implemented by education policy makers and teachers.

The third standpoint from Kuula (2013, p. 25 – 26) is about altruism; research should be made regardless of one's own benefit and authority. This has been an interesting to topic for me to consider since this study forms my master's thesis



which I need for graduating. Therefore, this study has inherently a side that has been made for my own benefit. On the other hand, this would not have had to be the subject of my research. I could have made my thesis also from other subjects, but I picked this topic for the subject of my study because I wanted to contribute something new to the scientific world. Studying this topic also has a chance to promote equality in the field of education and especially in the northern sparsely populated areas. In Arctic and other rural areas, distances are real challenges and studying this topic could eventually make education more equal for all. This comes up also in Cohens' et al. (2011) work, they state that it is important to serve needs and do positive good as much as possible. The fourth standpoint that Kuula (2013, p. 25 – 26) presents is about systematic doubt which means that the conclusions and evaluations should be postponed until there is a sufficient empirical evidence to support them. My study will not be presented before it has been thoroughly evaluated and made sure that it has been done properly and following a responsible conduct of research scientific.

In my study, one of the key parts for me is the data that I analyze. As I have listed in the data collection chapter a lot of the material includes peoples' ideas, thoughts and even feelings of the workshop they participated into; there are also the interviews I have made. Because of these factors one of the most important ethical questions have been informed consent and as Cohen et al. (2011) state that one of the most central ethical norms in science is people's autonomy. Israel (2015, p. 79) continues that in humanistic sciences this most often means that the subject of the research is freely willing to decide whether they want to take part in the study or not. This to happen, people need to be sufficiently informed about the research, otherwise a formed decision about participation can't be formed. People need to understand to what they are giving their consent to and then to voluntary to give the consent. (Israel, 2015, p. 79.)

The people, who have taken part in the e-mail chain that I use as a material in the study, have all been asked in written form if I can use their e-mails as a material in my study. *Finnish National Board on Research Integrity*

[Tutkimuseettinen neuvottelukunta, TENK] (2009, p. 4 – 5) states that the consent can be given verbally or by writing and it can also be otherwise interpreted from the behavior of the subject. For example, agreeing to politely presented interview invite or by answering to a questionnaire can be interpreted to agreeing to take part in the interview. The consent for using the e-mails have been extremely important for me to ask and confirm, since when the people were writing those e-mails, they did not know that they could be used as a material in a study. Everybody gave their consent for using the e-mails.

One of the materials in my study are the materials from and after the workshop. For the presentations I have asked a permission to use the presentations from the educators' who held the presentations. They both gave me a permission to use their presentation slides as a material in my study. The people who participated the workshop knew that their feedback of the workshop could be used as a material in the study. They had agreed to that before the workshop and therefore, I did not have to get their confirmations separately.

For the interviews, e-mails were sent to the people who participated the workshop and asked if they would like to take part in a brief e-mail interview. Attached to the e-mail was information about the study and where the answers would be used. The same was done later on when asking people take part to an interview that would be made via telephone. The people who took part on the phone interviews had not participated into the workshop.

When asking people to take part to the interviews, both e-mail and phone, it was made clear that they did not have any obligation to agree to participate to the interviews and that they had the right to quit the interviews at any point if they wanted as Finnish National Board on Research Integrity (2009, p. 4 – 5) outlines: "the subject has the right to end their participation to the research at any point, but it doesn't mean that their contribution so far couldn't be used in the research".

The confidentiality part considering the people who took part in the study has been carefully thought. Every document is transcribed so that all unnecessary names and other factors that might identify the participants have been redacted.

The General Data Protection Regulation (GDPR) has been put into effect in all the European Union countries in 2018. This data protection regulation has been set to give better protection for personal information and to give more possibilities to control the management of your personal data. (Office of the Data Protection Ombudsman). None of the data that I have personally gathered includes any kind of personal data from the interviewees, nor any data is listed anywhere by me. I also have used in my study plenty of material that I did not gather myself or was not part of the collecting process. None of the data that I have gotten includes any kinds of lists of people nor their personal information. Therefore, the new general data protection regulation has been carefully followed.

All the documents are in a password secured folder in the researcher's computer where nobody else, besides the researchers, has an access. Israel (2015, p. 103) states that affirming the confidentiality is important in human sciences because if the terms of confidentiality are not agreed on with the research subject, they might not want to take part on the research, or they might be reluctant to share their views and opinions in interview. This would then lead to an inadequate data and therefore to inadequate research. (Israel, 2015, p. 103.)

The data will be conserved by the researcher for a time that they feel is necessary. The research subjects have also been informed that their answers and contributions can be used in a further research. After the materials are not needed anymore, they will be disposed using the correct methods. When the study is finished and published a link to it will be sent to all who took part to it and have asked to see the end result. Finnish National Board on Research Integrity (2009, p. 8) states that data protection is one of the key parts in what comes to the confidentiality and right to privacy. The principles of right to privacy is divided in to three parts, the first one being the protection and confidentiality of the data.

The second is the conserving and the disposal of the data, and the third one is the published research. (Finnish National Board on Research Integrity, 2009, p.

8)

## 4. Results

The preliminary analysis process is described in the chapter 3.4. in this chapter I will continue with it. The four thematic groups that I formed in the preliminary analysis held on even after the phone interviews. The purpose of the phone interviews was to deepen the knowledge of the topic that needed clarification or had big differences on how some subjects were viewed between distance teaching specialist and teachers. Subthemes were formed first, and after that, based on the subthemes, the actual themes were formed. As can be seen down, in the figure 7, the first theme is activity and its subthemes are versatility, interplay and togetherness. The second theme is technological matter and it includes subthemes of time, online learning environments, and does it work?; the third theme is pedagogical implementations and its subthemes are games and tasks, monitoring, evaluating, and motivation. The fourth and final theme is diverse situations and its formed by subthemes of distance and differentiation.

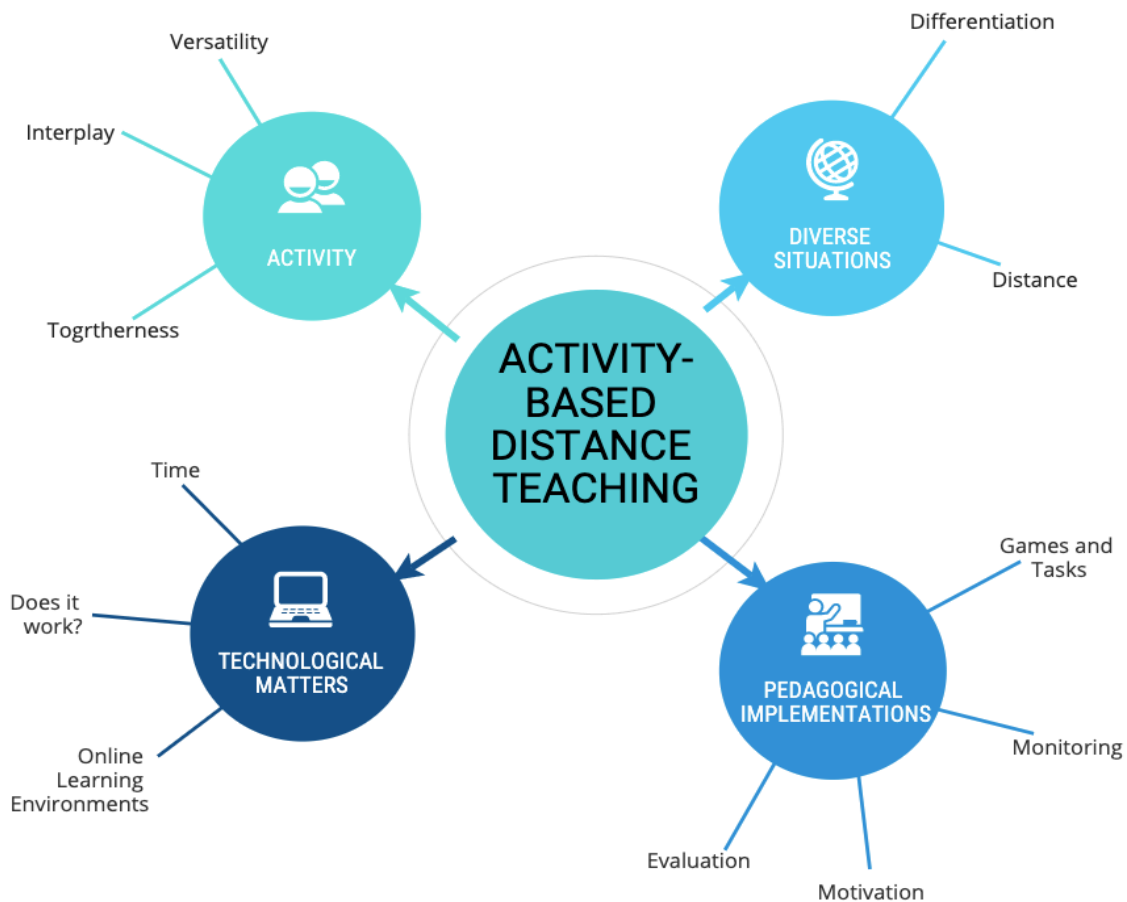


Figure 7 Themes and subthemes

#### 4.1. Activity

Based on the sub-themes of versatility, interplay and “feeling of us” I formed one of the main themes, activity. All the sub-themes interpreted some sort of importance of activity in distance teaching. Since activity is one of the main themes in this study, it is easy to understand that it came up. The interesting part is in which ways it came in the interviews and other parts. Activity was emphasized more in the interviews than in the planning part of the workshop.

##### *Versatility*

The aspect of versatility came up in multiple interview answers. In one interview it was said that the constant presence of computers in distance teaching and learning is an integral part of the class. There is a possibility to use computers and different digital tools in a broad way during class, which is not always possible in a close contact teaching. It was also emphasized that in distance teaching there is possibility to use different e-learning environments in a creative and versatile way.

*One of the end goals should be to learn how to make distance teaching more activity-based and more diverse. (E-mail chain)*

Leskinen et al., (2016, p. 14) states that school subjects are studied from versatile sources and in versatile ways; this gives the students broader picture of the subjects at hand and the connections between them. It is also seen in the interviews that when activity is embedded in distance teaching, it allows the students to use their own surroundings concretely and benefit from that. Activity-based teaching in distance teaching is seen as way to adapt teaching and learning, for example it allows to go beyond the textbook and therefore look matters from a new perspective and possibly create something new. This describes the versatile ways in which distance teaching can benefit greatly from activity-based teaching methods.

*The tasks are nicer (when activity is happens in versatile ways) and enhance motivation for students and teachers alike. (e-mail interview 1)*

Staikopoulos et al., (2014, 344) have stated that when designing learning environments, they should be in a way that the learning environments are adaptive and include versatile learning activities. The information in these learning environments should not only be accessible and retrievable, but the activities should also be the sort that can be experienced (Staikopoulos et.al., 2014, 344.) In the e-mail chain that was related to the planning of the workshop versatility factor came up multiple times. Planning on how to make teaching and learning more versatile and activity-based was one of the main goals of the workshop. One of the points that were thought in the e-mail chain was the issue on how it is possible to diversify and update distance teaching so that it would support more the current curriculum. Later on, it was decided that one of the main focuses of the workshop should be in distance teaching, and especially on how to adapt and connect activity-based teaching to distance teaching and how to diversify distance teaching and learning. This was an important notice from the planning group, and the same thought were expressed in the interviews:

*activities and activity-based learning should be the standard assumption and be the core pedagogical solution (e-mail interview 5).*

In one the interviews it was stated that using activity-based methods helps to break down the class which the interviewee considered important, especially for the younger children. It was also stated that the versatile teaching and learning methods are important parts in the motivation of students and teachers. One of the worries mentioned in one the interviews was the concern, whether the teaching and learning is versatile enough so that the students will not get bored. Kotilainen (2015) has stated that working in online learning environments can improve some students learning results since online learning is illustrative and diverse.

*Is the teaching versatile enough for the students so that they will not get bored or that their motivation would not get low even though they are studying physically alone (e-mail interview 3)*

Activity as a theme was underlined more in the interviews than between the distance teaching experts. This is understandable, since activity was one of the main themes of the workshop and thus integrated in the theme. What was interesting, all of the interviewees also considered activity being an integral part of distance teaching and learning. This is possibly related to the fact, to which Norrena (2016, p. 11) referred that activity-based learning is heavily underlined in the latest *Finnish National Curriculum 2014*.

### *Interplay*

The second subtheme within the activity theme is interplay. This subject came up several times in the interviews, but it was not mentioned, nor come up in other ways, in the planning phase of the workshop. Whereas, it did come up in the theoretical part of the workshop. In the presentation, it is stated that there must be interplay between teacher and student in the form of support and guidance. In addition, the interplay between students' is extremely important regardless of them being in separate geographical locations. There must ways to provide students with chances to work in pairs or groups. When working in pairs the partner there is considered as a great support and they are valued and kept important by their pairs.

*There must be chance to work in pairs since partners are important support for students. The partner is valued and is seen important. (Theory slides)*

Leskinen et. al. (2016, p. 14) have also stated that communal learning enhances As for what came up in interviews, teachers consider interplay as an important part of teaching and learning. In one the e-mail interviews, they were considering



that activity-based learning in distance teaching and learning settings are about interplay. Interplay was considered to be even more important when making the assignments during the class, this was considered being more pleasant way to work to students. In one of the interviews it was stated that:

*It would be excruciating to just sit silently in front of a computer screen with headphones on for 45 minutes (e-mail interview 4)*

However, there was a concern about how to make the classes interesting and pleasant for the students while promoting learning. In one of the interviews, it was seen as a huge pitfall that activity-based learning in distance teaching and learning would undermine the structures of classroom learning. This teacher would like to make sure that activity-based learning from a distance would not end up being a way to kill time and to just have fun without the learning aspect.

*Distance teaching cannot be just the teachers talking. I do not think that learning would happens if I would just stand there and talk (phone interview 2)*

In addition, teachers' want to have their students to work actively, independently and to have a chance for interplay, so teaching would not be just teacher's monologue about the subject at hand. Another thing that was considered being important was the students' ability to share their work with each other, like in a regular close contact classroom, comment and interact with each other. Interplay was also seen as being rewarding for both the teachers and students. Salmon (2011, p. 36) has stated that groupwork and social interaction in online world does not just happen by itself, albeit it has strong social components. Thus, creating social interaction it still needs support from teacher and other facilitators to be constructive and to enable learning.

Leskinen et. al. (2016, p. 14) have described activity-based learning as an something which main goals is to enhance students' own participations and

interactions. Both Kotilainen (2015, p. 73) and Brunet (2011, p. 37) describe in their works that distance teaching and learning should include communication between all participants and that one of main goals is for students to learn how to work in different types of interaction environments. Savolainen et. al. (2018, p. 165 – 166) state that activity-based learning includes conversations and interaction highlighting students' own thinking and imagination. Using these methods, the learning becomes more active, group work skills get better, students can focus better, their self-esteem and self-knowledge get better.

### *Togetherness*

The third and final sub theme within the main theme of activity is the feeling of togetherness. The feeling of “us” being “us”, togetherness, is seen as an integral part that must be taken into notice in distance teaching. This was mentioned several times both in the interviews, and in the planning phase of the workshop and the theoretical slides presented in the workshop. Salo (2019, p. 9) argues that in the best class activities, that involve games and playing, everybody feels that they are an important part of the class community.

In one of the e-mail chains, it was stated that the combination of learning atmosphere and possibility for group work is an important factor that supports distance teaching and learning. Further on, in the slides that were about the part of the workshop it was stated that students also want to be there, where the other students are also and it is important for the students who study in distance teaching and learning environments, that they feel that they belong in the class and group.

*Students want to be there, where the other students are also. They want to be part of the group. (Theory slides)*

In the e-mail chain, one of planners mentioned that they were earlier asked tips and advice on how to create this close knitted group in distance teaching and learning. From this, it can be deducted that there are teachers who view this as

an important part but are unsure of how to enforce that. This same thing also came up in one of the interviews:

*It would be great that regardless of distance the group would form a great team spirit and fellowship, and naturally interact with each other (e-mail interview 5)*

Leskinen et. al. (2016, p. 14) have stated that activity-based learning enhances the fellowship and togetherness in the classroom. This can happen also in distance teaching and learning, and teachers hope and view it as a requirement for successful distance teaching and learning. Activity-based learning also helps the students to develop their interaction skills. (Leskinen et. al., 2016, p. 14). Pitowski & Robertson (2017, p. 47) have argued that one way to build a class spirit and feeling of togetherness in distance teaching is to incorporate effective close contact teaching practices that would engage students with discussion and listening.

In on the interview's activity-based learning is seen as a tool that enhances the groups feeling of togetherness and that feeling of togetherness is not tied to location. It was seen in one the interviews that it is important that the students play and study together despite of the distance. This is also important between student and teacher, not only between students. In the theoretical slides, it is stated that the presence of the teacher is crucial. The teacher must be present both visually and virtually since it supports student's well-being. There must be contact, cooperation and chance to have individual interaction between teacher and student.

*That students and teachers could talk with each other's, do pair or group work, or just that we would not let not being in the same physical phase bother us, but we could work together nevertheless (phone interview 1)*

Based on this case and supported by other works it seems that activity is already somewhat embedded in distance teaching and learning, at least in Finnish

context. The themes of interplay and versatility, and their importance in distance teaching and learning, is already mentioned in school of air. Nevskaya (2018, p. 200) states that students must be interactive while they learn and study and that students are connected, not only with each other, but with the teacher also. Using versatile tools in the learning experience interchange between students is described to be extremely important.

All in all, activity and its subthemes of versatility, interplay and togetherness does not seem to be too big of an issue for neither teachers who have little to no experience on distance teaching nor for the distance teaching specialists. Yet, this theme comes up again in the pedagogical adaptations theme, where the subtheme of games & tasks is talked about. Even if games and tasks is under a different theme it is closely related to activity theme since games and tasks is one of the tools which helps to create ways to enable versatility, interplay and togetherness in distance teaching and learning.

## 4.2. Technological matters

The second major theme is technological issues. This theme is formed from three sub themes: time, does it work and online learning environments. All these sub themes are somehow tied to technological matters that has to be taken into account in activity-based distance teaching. This theme includes most of the worries and anxieties related to activity-based distance teaching.

### *Time*

Time can be seen as a general worry, that is not only related to distance teaching and learning or to technological matters. Nevertheless, the issue of time came up several times in the interviews and every time it came up, it was related to technological matters. The issues concerning time did only come up in the interviews, but this again is an issue that cannot be solved by attending workshop.

*In distance teaching it just takes so much more to plan the lesson (than in a regular class) (phone interview 2)*

The factor of how much time there is to plan the lessons is a huge issue in teaching, and it is not only related to distance teaching. The main concern related to time is, is there enough time to plan and make good lessons for the students, and especially for the ones who study from a distance? This is heavily connected to a situation, where teachers do not yet have sufficient knowledge about the possible ways to organize the lessons. One answer to a question about what kind of worries do have about teaching from a distance?

*The time it takes to prepare the material and lesson (e-mail interview 1)*

Another time related issue that came up is a pressure teachers feeling that they have to constantly create new tasks and games. Finding and learning how to use new apps and programs was also considered time consuming. Finding useful apps, programs, games and tasks take a lot of time because they cannot be just “something”, but they need to support the pedagogics that are applied.

*It feels like when planning the lessons there is always a huge pressure to try and develop something new and great, because it feels that all ideas and adaptations gets old very fast (e-mail interview 5)*

The planning aspect of the class is also one factor that takes a lot of time, which is always a valuable asset. It was said in multiple interviews that planning a distance class takes more time than planning a regular close contact class. However, this was a concern mainly for those teachers who had little or no experience on distance teaching. More experienced distance teachers also said that it takes a lot of time but for them it was not an issue.

*Well... The lesson must be planned and structured pretty carefully, to think and try beforehand to see how it actually works (phone interview 1)*

Time is also seen as constrictive factor when wanting to implement activity-based learning into distance teaching. In one of the interviews, it was stated that it would be great to use more activity-based learning but the curriculum is so full of different topics that must be covered that some topics just have to be done in a more lecture type teaching or go through some topics a little bit faster.

*Like, if there would be more time then there would be a chance to use more activity-based learning methods so that the students could find out about things, try to find solutions for them and so on... But it is of course slower in distance teaching and learning than it is in regular lessons (phone interview 2)*

Time was one of the subthemes within technological matters subtheme. This worry was shared between all the teachers that I interviewed. On the other hand, time seems to be a general issue that does not only concern distance teaching and learning but is affecting teaching comprehensively. In the interviews it is stated that creating good distance teaching and learning lessons takes a lot of time, especially when first starting distance teaching.

Giving teachers more time does not seem a possibility, or at least something that cannot be done via workshops. Getting more time to get acquainted with new technology and apps would need a more comprehensive reform on a national level. In the meantime, the pressure related to time can be eased by other ways; it could be done in collaboration between teachers, attending workshops and by support from the schools. If teachers would have tutors or mentors of some sort, they could share knowledge and ideas thus teachers who are starting distance teaching would not have to spend too much time on trying to reinvent the wheel. This could be a one way to try and save time.

*Does it work?*

Maybe the greatest worry that came up in the interviews is a concrete worry whether the technology, that is being used, will work properly. This came up in several interviews, and also multiple times in the planning phase. However, this was mainly a concern for those teachers who had little or no experience on distance teaching.

*Before starting as a distance teacher, I thought that it would be hard, but I have been positively surprised how well and smoothly everything have gone (e-mail interview 5)*

As this chapter's name states the anxiety whether the technological solutions will concretely work were a big one. The worry was not as much in whether the solutions will work from a pedagogical point of view. This aspect came up in three e-mail interviews and in one phone interview and the connective factor for these were that they had little, or no experience about distance teaching.

*Using technology and how it will work (e-mail interview 1) (on what worries in distance teaching)*

Early in the planning for the workshop day, it was stated that one of the factors that supports distance teaching and learning is to teach teachers how to use teaching technologies. This refers that the experts on this field know that there are worries about how the technology will concretely work. In the theoretical slides of the workshop day, it is stated that technological issues are frustrated for teachers and students alike. But according to the slides when teachers are prepared for the issue and students are informed about occurring issue it will make the situation easier.

*There have been some technological issues when starting the class but nothing major. ICT support have been a great help. Starting the class*

*might have taken a bit longer but never so badly that I would not be able to hold the class (phone interview 1)*

Teachers have considered ICT support their schools provide as a great help and as one of the reasons why technological issues have not been too bad. In some cases, when having a distance lesson there is ICT support present on the class, or at least on duty so that they can be easily reached.

*After a rocky start with bad connections and software troubles it (distance teaching) has been good. Although, I think extra education is needed to improve distance teaching (e-mail interview 3)*

Technology related issues and especially does it work-subtheme was interesting. In this, the distance teaching experts had recognized inexperienced teachers' anxieties about using distance teaching technologies. Teacher who had no experience in distance teaching were worried on how the technology will work. Yet this might be a reasonable worry from the more inexperienced distance teachers, because technology is the first tool one must work and teachers to know how to use before they even can start the teaching. It is also one of the few physical and more concrete matters for teachers to work on, so it also might be easy to direct their anxieties on. Also, there is a fair possibility, that teachers who do not have experience on distance teaching do not know what else is required from them as distance teachers, so technological issues come up first.

However, in the interviews the teachers who already had experience in distance teaching did not worry about technology and were pleased how well everything had worked for them eventually. Also, the experts wanted from the beginning to take these anxieties into notice and offer help and advises to the technology related worries. In Hannum's, Irvin's, Banks' & Farmer's (2009, p. 5) quantitative study about distance education it is stated that technological issues were not a barrier in distance education. The barriers in distance education in their study were not related to the lack of technical expertise, lack of technology,



inadequately maintained technology or connectivity problems. However, Hannum et. al. (2009, p. 5) also found out in their study that technological issues can be viewed as “start-up barrier” meaning that the beginning of distance education and distance teaching can be problematic because of the lack of required technologies and lack of trained people. Yet, they also state that this is a problem that only has to be solved once.

Based on this case, the worries of starting or inexperienced distance teachers towards functionality of technology cannot be ignored. Sharma and Mishra (2007, p. 5) state that faculty support is extremely important in the beginning of distance teaching implementation. It is a real worry and taking it into notice when planning further workshops is important. When these anxieties reduce it will be easier to focus on the pedagogical solutions, as Øgaard (2018, p. 12) has stated: technology should just be a tool from which through pedagogical practices are implemented.

### *Online Learning Environments*

The matter of online learning environments was a major part when planning the upcoming workshop. It was mentioned in the first meeting memo that it is important to enforce activity-based learning through online learning environments. Another matter that was discussed in the first meeting was the importance of including what kind of online tools and pedagogical adaptations could be used; this matter was underlined in the e-mail chain where more planning was done.

In the theoretical slides presented in the workshop, it was stated that teaching that happens from a distance should be planned extra carefully. This is because there are so many possibilities but also pitfalls. This same matter was taken into account in the e-mail chain, where it was discussed that learning how to use online learning environments, that are suitable for distance teaching and learning, is an important factor that must be taught to teachers.

*Plan the online teaching carefully. There are a lot of possibilities and pitfalls (theory slides)*

In this case online learning environments were talked about as the place where students and teachers gather for the lesson. The underlying aspect in basic education through distance teaching and learning in Finland is tied to the fact stated in the *Finnish National Core Curriculum 2014* that distance teaching can be implemented if it meets the same criteria for safe learning environment as in contact teaching. Practically this means that distance teaching and learning should be arranged synchronously, and this makes choosing online learning environments rather challenging.

The concern for how to use online learning environments was not a pressing concern or at least it was not addressed in the interviews as a big concern. There were, however, a concern on how to find new environments and apps. In these interviews online learning environments were more non-traditional, for example Google docs, Seppo and online dices, instead of the traditional ones, Moodle, Optima.

*I have been going through different digital apps in different workshops and there we have figured out there (in the workshops) which app goes together with which task and in which situations to use them. That has been very useful for me (phone interview 2)*

In many of the interviews it came up that there is a need to find the suitable applications. The feeling was that there are so many options available, so it creates kind of an information overflow which is considered in one of the interviews as a stressor. The need for learning how to use applications and to which applications to use came up in the interviews.

*There comes constantly new apps and electronic doodads. That creates an "app anxiety" ja there is a constantly a feeling of being inadequate*

*because you are not providing the most stimulating experiences for the students (e-mail interview 2)*

The same matter that Kotilainen (2015, p. 73) and Øgaard (2018, p. 37) have stated is related to the issue that online learning environments and technologies should be tools by which pedagogical solutions are enabled. When looking through the interviews, it seems that the interviewed teachers have taken this in to account and have spent a lot of time considering it. What they especially want to learn in the future about online learning environments is exactly the functional part of them. They want to learn what online learning environments are suitable for teaching and which of them serve their purpose.

### 4.3. Pedagogical Implementation

The third major theme is about pedagogical implementations. There are four categories this is based on, and they all represent some side of pedagogical solutions that needs be taken into account when planning activity-based distance teaching. These pedagogical issues revolve around relatively practical matters and address the concerns of the teachers I interviewed and the practicalities that have come up in the planning phase of the workshop.

#### *Games and Tasks*

This subtheme of games and tasks is based on the similar wish that was expressed on the learning environment subtheme. This differs from it because this is not tied to learning technologies or technology at all. Even in distance teaching and learning it is not desirable that all learning is tied to technologies. In the e-mail chain it is mentioned that in general teachers would like to get concrete tips and advises on how different tasks and games would work in distance teaching. Sharma and Mishra (2007, p. 4) have stated that one of the benefits in e-learning, is that new material is easy and cost affordable to download and create new

material. This also came up in one of the interviews, where it was stated that especially when teaching Sámi, it is easier to find new study material, since there are very sparsely traditional books. In internet it is easy to share for example Sámi news, Sámi music and other material that would not be available otherwise.

In one of the interviews one teacher expressed that they would like to play more educational games especially with the younger students. It is also stated, that when it comes to younger students, who cannot yet read sufficiently, do not have any shyness or prejudices toward the fact that the interaction happens via internet.

*With the younger students, who cannot yet write, interaction is very unre-served because they like to answer out loud. But when the kids get older and they have learned how to write, then they might get shy to talk out loud and they move to writing their answers and questions on the chat (phone interview 1)*

In the same interview it was underlined that younger students, who cannot read yet, do not have prejudices on having to communicate through video connections. They talk freely and are more active altogether. It was stated that it is easy to play different games with them and do tasks that are more activity-based. Yet, there is a pressure on trying to create new games and tasks all the time since ideas and applications get old very fast. Although, it was said that more formal teaching has the same issue.

*There is a pressure on trying to create something new and awesome since ideas and apps get old fast. There are only few things that carry through-out the year (e-mail interview 5)*

The issue of games and tasks is of course tied to the ages of the students' and at what grade they are in. Leskinen et. al. (2016, p. 14) state that activity-based learning is based on tasks that activate students in different ways, mentally,

physically, socially and cognitively; thus, making learning more comprehensive. Finding tasks that are activity-based can be challenging even in a formal classroom, but it can get especially hard in distance teaching and learning. However, teachers in the interviews were not pessimistic about this, they just felt like they need a better source for games and tasks.

In other interview, where the teacher teaches students in upper level of comprehensive school, it is stated that the interaction is quite easy with the students. In the interview the teacher reflected that students that age are so accustomed to different technologies that they do not even pay notice to it too much. Another aspect that came up is the possibility for more independence in doing the required tasks. Staikopoulos et al., (2014, p. 344) argues that in activity-based learning some of the responsibility of learning is placed as a students' own responsibility, and it happens through practical activities. If the student wants to really understand the subject at hand, they must engage with it actively for example through workshops, field trips and social interactions

*They (students) like to be in the online classroom, I guess they enjoy the fact there is a bit more freedom. Like they can decide that in whether they will do this or that first, in what order and they can listen to music while doing the tasks (phone interview 2)*

Leskinen et. al. (2016, p. 14) have stated that activity-based tasks enhance students' own activity, independence and participation. Students get to take part in the planning of the tasks and activities, they get to be part in the preparation and production of them. These aspects can be extremely valuable when designing activity-based learning for older students. As said in the phone interview 2, students enjoy the freedom and the fact that they can affect on how to do the required tasks.

*Monitoring*

The sub-theme of monitoring came up with interviewed teachers who did not have experience on distance teaching. For those who had experience in distance teaching this was not issue or worry. Neither the distance education specialist considered monitoring as an issue nor substantial. Monitoring only came up in the theory slides used in the workshop.

Based on the data, monitoring the class is not only about seeing the students and knowing that they are physically fine, but teachers' also need to know that the students are following teaching and what is going on in the class. So therefore, there must be a way to also monitor the learning progress.

Monitoring the students was seen in one interview as a slight difference to a traditional teaching when comparing those two. It was considered that distance teaching does not differ from traditional teaching very much, but the important difference is that the teacher cannot monitor the class as whole or that they cannot monitor the class or individual students at all. In two other interview the worry on monitoring the students were more focused on how present the students are during the teaching moment.

*The most worrisome part is how present the student is during the class... But that kind of monitoring, I guess, would be through following how they do the assigned tasks and just to look from there whether they are doing progress... I guess that that's the only way... (phone interview 3)*

Another matter that raised concern in the interviewees was the student's activity during the class. It was wondered if the students are going to work as actively as they would in classroom teaching and how it would be possible for the teacher to monitor that. In other interview one teacher described how they monitor older student's, secondary school, work from a distance.

*We have these shared google docs where they write and what I can observe in real-time, so I constantly see what they write in there. And if the*

*tasks don't progress sufficiently, I can share them to separate group spaces and there we can check and discuss about the problem. So, I can monitor the activities that way (phone interview 2)*

This is a valid concern from the distance teachers who have little to none experience on distance teaching since the Finnish Basic Education Act states that: "education must be provided by the school in a safe learning environment at given times". (Finnish National Agency for Education.) This is related to the technological issues and on the worry whether the technology will work properly. Therefore, the solutions for this problem is really similar as in the does it work- part. These teachers mainly need reassurance and guidance on how to use the technologies.

### *Motivation*

Motivating students in online learning environments and more generally in distance teaching came up multiple times both in interviews and in the distance teaching experts planning materials. This was not seen as an issue per se, but as a something that teachers want to develop in.

Motivation is not only important issue in distance teaching and learning, but it comes up also in traditional, close contact, teaching also. Motivating students can be described as a universal issue and point of development. For learning to happen, students must be motivated and; therefore, it is important for the teachers to find ways to motivate students.

The need to present ideas and tools for teachers on how to motivate students in distance teaching came up several times in the e-mail exchange and already in the first meeting memo. This subject was covered in the theory slides also and there it was stated that:

*It is important for the teachers to learn how to support and strengthen student's motivation in distance learning environments and to make sure that they learn something (theory slides)*

To motivate students, who are studying by using distance teaching and learning technologies, the way to motivate them differs from traditional, close contact, teaching. The aspect of motivation also came up in the activity theme where teachers considered versatility, interplay and togetherness being important factors when motivating the students. In their opinion when distance teaching and learning is activity-based.

In the interviews motivating the students came up different contexts. In the interviews, motivation was not mentioned word-for-word, but was embedded in the subtext. It was described that the lessons should be exhilarating and participative so that students would want to work more and to do independently some tasks. It was also stated that:

*Will teaching be versatile enough so that the students will not get bored despite of them studying physically alone (e-mail interview 3)*

In interviews it was also thought that distance teaching to succeed and come out well it absolutely needs motivated students. Thus, when students are motivated, they will work without continuous supervision and guidance. One of the interviewees had noticed that younger students are very taken up with everything new and they are eager to try new things.

*And of course, it is needed that the students are excited because that's when they will work enthusiastically. The little students are very unre-served, they will try anything new (phone interview 1)*

All in all, the subtheme of motivation is very closely connected to several other themes and subthemes. Theme of activity, its subthemes and games and tasks



are very important when motivating students. In Hannum's et. al. (2009, p. 5) study, the most commonly used reason for teacher to stop distance teaching was the students disinterest and lack of motivation and participation to distance teaching. So, based on my study when the lessons are based on activity, it is easier for the students to motivated instead if they were just sitting alone and listening the teacher to talk and "lecture". Again, games and tasks are important tools which enable the activities and activity-based teaching.

### *Evaluation*

Out of all sub-themes and themes, evaluation was the one with most differences between the interviewees and distance teaching experts. When planning the workshop, the importance of evaluation was brought up multiple times and it is also presented in the theory slides.

*Evaluation is important from a pedagogic-didactic point of view (theory slides)*

Whereas evaluation did not come up even once in the e-mail interviews. In the phone interviews, which were made on the basis of the preliminary analysis, I asked about evaluation in distance teaching but none of the interviewees considered it being very different from evaluation in close contact teaching.

*I guess not, not it is not different. The only nuance is that one cannot be sure who is answering to the questions unless there is a camera on. But it is not different technically speaking (phone interview 2)*

Evaluation was one the most dividing points in this study. Teachers, whether they were experienced or had no experience in distance teaching, did not consider evaluation as a challenge or as issue in any way; whereas, distance teaching experts considered it as an integral part of distance teaching and learning. The

reason for this difference of opinions did not come up in the interviews nor in the planning material of the workshop.

In the phone interviews I asked about evaluation and more specifically how it differs from evaluation in close contact teaching. One matter that was mentioned being challenging to evaluate was the activity during lesson, especially the interviewee who had no experience in distance teaching thought that.

*Maybe the traditional activity during class might be harder to evaluate, and that could be a challenge (phone interview 3)*

In another interview it was described that evaluating activity during class depends on the group that is being taught. If the group as a whole was not being active or was otherwise passive the activity during lessons was considered harder to evaluate, and in those situations the activity during lesson was evaluated based on the tasks that were done during the lesson.

*Activity during lesson can be evaluated in the same way as in close contact teaching, students raise their hands, they answer and write if they already can do that (phone interview 1)*

Evaluation is carefully defined in the *Finnish National Core Curriculum 2014* where a whole chapter has been devoted for evaluation. In there, reasons for evaluation are well defined and reasoned, it is stated that “the purpose of evaluating is to guide and encourage studying and develop students’ requisites for self-evaluation” and “the focus is on evaluation that furthers learning.” (Finnish National Agency for Education.)

Even though evaluation is carefully covered in the *Finnish National Core Curriculum 2014*, it does not explain the major difference between distance teachers and distance teaching experts. The only part in the interviews any concern about evaluation was expressed was from the teacher who does not have experience

from distance teaching. Their concern was about whether they could evaluate the student engagement during the lesson. However, this might have something to do with not having knowledge about the learning technologies because technological solutions affect on how to observe the students during lessons.

Yet, evaluation cannot be discarded because the teachers did not consider it as an issue, because the distance teaching specialist consider as a major pedagogical matter. They have reasons to keep evaluation as one of the key points in distance teaching and learning, and they consider it being significantly different - or having aspects that does not appear in traditional, close contact, teaching - than evaluation in close contact teaching.

#### 4.4. Diverse situations

The fourth and final major theme is the diverse situations. There are two categories this is based on and they both represent some sort of diverse situations that would require, or would be helped by, an activity-based distance education. These situations revolve around matters why teachers think activity-based distance education is needed or how it could improve students learning.

##### *Distance*

Distance-based issues was the most frequently mentioned situation where distance education was considered needed. This was mentioned once in the e-mail chain, but that was the only time it was mentioned by the distance teaching experts, however, this is most likely because one of the premises of the ArkTOP-project was that distance education must be provided nationwide and to sparsely populated areas.

*Distance teaching makes studying possible for students from small municipalities and in sparsely populated areas (e-mail interview 4)*

The reason why this came up so many times in the data, is probably related to the structures and policies in the Finnish education systems. The Basic Education Act states that: "Basic education act does not enable education in distance teaching where student chooses the time and place for education. Regardless, it is possible to use remote access, for example through video or computer, as long as the previously mentioned criteria for contact teaching are fulfilled." (Finnish National Agency for Education). For these reasons, teachers have a strict and rather narrow frame on when to distance teach. Distance teaching and learning can basically happen only when there is no other ways to organize teaching.

Especially distance language teaching was considered important. Distance teaching makes it possible to teach different languages in places where certain specific language teachers are not available. This came up specially when talking about indigenous languages, in this this case Sámi languages.

*When teaching Sámi, I know that the students would not otherwise get any education about Sámi at all, and when talking about endangered languages it is important (phone interview 1)*

Utilizing possibilities for distance teaching is extremely important when there is talk about teaching indigenous and endangered languages. In Finland there are not many qualified teachers who are native Sámi speakers or have fluency in Sámi and; therefore, providing Sámi language teaching requires distance teaching. The distances in the northern Lapland are long, and it is not possible for students to go to other schools for a lesson. They need the education at their own school, and distance education provides that. Distance education is an important factor when talking about education in low population density areas since it enables more equal opportunities for all. This issue not only relevant in the northern parts of the world, but also for the other rural areas.

However, language teaching is not the only case where the interviewees considered distance teaching being important. Cases where students are spending a longer period of time abroad was also considered as a situation where distance teaching could be helpful. In some interviews it was just about holidays, but one interviewee also brought up high schools focusing on sports and exercises.

*Students who attend high schools focusing on sports and exercises or are doing their exchange studies could study from abroad (e-mail interview 2)*

One more situation was mentioned where distance teaching would be important from the student's point of view. In two interviews student getting sick was considered a reason when distance education would enable the student to take part in the compulsory education.

*I work in a hospital school and there are students who, for one reason or another, cannot physically come to school. So that (distance teaching) could be a thing that could be brought more to hospital schools (phone interview 3)*

This part of the interviews was really different from the other interviews. Teaching in hospital schools can be arranged by utilizing distance teaching connections and ICT. This makes it possible for the student to take part in their own classes lessons or enable conversation between other students or with the teacher. However, it always has to be discussed with the student and their parents whether they will want to start use distance education methods. (terveyskyla.fi, 2018) If utilizing distance education in hospital schools, the health condition of the students must be carefully evaluated, and the decisions made based on that. This shows, that distance teaching and learning is not only relevant when talking about geographical distances but also in variety of situations.

*Differentiation*

This subtheme is the second category that forms the theme of diverse situations. Kotilainen (2015, p. 74) has stated that studying online makes it possible to pay more attention to different learning styles and different kinds of students. This can happen when ICT solutions are right and efficient, and support learning in the areas and levels where individual differences have been blocking the learning process. (Kotilainen, 2015, 74.) In the first meeting memo came up a need to find a way on how to answer for students need for support in distance teaching environments. This was also considered important in the interviews. In one of the interviews differentiation was not seen as an issue in the form of written tasks and homework. But the challenge was considered being:

*How could I offer the needed support? I do not think that would be an issue either, but it would require some one-to-one time with the student separate from the group. I think it would be hard when the rest of the group is present, to pay notice right there, it would take one-on-one discussion (phone interview 3)*

There is always a need to take notice on students' personal needs regarding education and learning. Everybody is an individual and have their individual needs. Activity-based learning concludes from variety of different learning methods, and this makes it easier to take students' individual need into notice. (Leskinen et al. 2016, p. 14; Norrena, 2016, p. 13; Foster et al. 2010, p. xi.) Another feature that came up in the interviews was the existence of different types of learners. In one interview it was mentioned that some students might want to work in online environment because of their personal desires, some students might prefer working alone and avoiding face-to-face group work, maybe because of social anxiety. In another interview it was suggested that some are braver when there is not physically present.

*There are a lot of people who like to write, but do not want to talk, so they can get in touch with the language through writing and then learn to speak the language (phone interview 2)*

In contrast of providing extra support for the students who need it, differentiation can work the other way too. In the interviews working independently was mentioned several times, and to students who are ahead of schedule, distance learning could be solution. In high school level, distance teaching was seen as a way to increase the students' independency, which was seen as a positive.

*Distance teaching enables students to learn more independently, which is a good thing considering the possible future university studies (e-mail interview 2)*

It is important to take time and have one-on-one conversations with students' also in distance teaching and learning. As stated before, the individual needs of the students' must be taken into notice. There should be more opportunities to discover what kind of differentiation methods could be applied in activity-based distance teaching and learning. In the *Finnish National Core Curriculum 2014* (2014, p. 30) that differentiation is one the key principles when deciding on the pedagogical tools that are going to be used in teaching. Differentiation is based on the individual needs of the students' and for the possibilities for the students choose themselves what kind of learning methods they prefer and work in their own pace. (Finnish National Agency for Education.) When taking this into an account, it can be stated that activity-based distance teaching and learning is a good way to enable differentiation in distance teaching.

## 5. Discussion and Conclusions

Both, distance teaching experts and commencing distance teachers consider activity-based learning being an integral part of distance teaching and learning. Both groups consider that the teaching and learning should be versatile so that students would get and stay motivated in spite of being physically alone. It was also considered that interplay is important between teacher and student and between students. Distance teaching experts expressed that it is important that there are chances for group works, since the pair is highly valued. Also creating the feeling of togetherness for the students was considered important by the distance teaching experts and commencing distance teachers. The way to make the tasks more versatile also brought up by the commencing distance teachers in the theme of pedagogical implementations and there in the subtheme of games and tasks. The games and tasks must be versatile enough and there must be possibility of group work so that students stay motivated despite of being physically far from the teacher and possibly classmates. These are also factors, that improve the feeling of us being “us” and the feeling of togetherness within the class; which also enhances the motivation of students.

Technological matters did not concern distance teaching experts, nor they were considered very important. Whereas, online learning environments were considered being important when planning the workshop. They were considered being very important, since they are the tools which distance education is applied through. Choosing the right online learning environments were also considered important by both, distance teaching experts and commencing distance teachers, because they are in a big part when using activity-based learning in distance teaching. Without proper and suitable online learning environments activity-based distance teaching would not be possible. However, the workability of technology was highlighted in the commencing distance teachers views on activity-based distance teaching. They were worried, that the technological solutions would not work properly, or that they would not know how to use them. Even if



technology is only a tool through which the pedagogics is applied through it is important, because without it, distance teaching would not be possible organize.

Distance teaching experts consider evaluation being one the key points of activity-based distance teaching. Evaluation was mentioned several times in the planning phase of the workshop and especially as part of activity-based distance teaching and learning. This was also one of the key focuses that was planned for the workshop. However; commencing distance teachers did not consider evaluation being very important aspect in activity-based distance teaching, or at least not as a difficult part or as something that worries the. Motivating the students in activity-based distance teaching was considered highly important by both, the distance teaching experts and commencing distance teachers. However, the fact that teaching and learning is activity-based was seen as a way to motivate students again by both groups. Also, games and tasks were considered highly important by both, the distance teaching experts and commencing distance teachers, since games and tasks are the way activity-based learning can be implemented in teaching and learning. Monitoring students' and their work was also considered being important by both, the distance teaching experts and commencing distance teachers.

Distance related issues are one the most central reason why activity-based distance education is needed. Distance teaching experts stated that they would wish to improve distance teaching and learning throughout Lapland. This comes from the fact that in Finnish Lapland distances are long and the schools in sparsely populated areas do not necessarily have the same opportunities and resources than in big cities, for example regarding language teaching. This was also one view that came up from commencing distance teachers, but I was not the only reason they considered activity-based distance teaching being important; being sick, staying abroad for a longer period of a time, or being in a high school that is specialized in sports were also reasons why activity-based distance teaching was considered important. However, this difference between distance teaching experts and commencing distance teachers might be related to the fact that the

workshop was a part of the ArkTOP-project, which is focused on arctic pedagogy and mainly to distance related issues and; therefore, the distance teaching experts were concentrating on educational issues related to distances. Differentiation was also viewed important in activity-based distance teaching by both, the distance teaching experts and commencing distance teachers. Especially it was seen important, that differentiation could be done in distance teaching and that different learning styles could also be taken into account; and this is where activity-based learning becomes an important part of distance teaching and learning, since activity-based learning concludes from variety of different learning methods, and this makes it easier to take students' individual needs into notice.

As a conclusion, the in-service training needs of teachers related to activity-based learning in distance teaching varies. The workshops that are about activity-based distance education should include training on: how to teach in ways that are versatile, includes interplay and enhances the feelings of togetherness; what kind of games and tasks could be implemented and used in activity-based distance teaching, what are the best ways to monitor the class and students' learning, how to motivate students so that they will not get frustrated while studying physically alone, and how to evaluate students work.

In the theme of technological matters, the issues that were worrying some distance teachers were mostly related in whether the technology that is used, will work properly. This was taken into notice by the distance education specialists who were planning the workshop; however, there is little point to take these matters as part of workshops, since there is not much that can be done during the workshops. Thus, the workability of technology is not necessarily an education need, but an issue that must be taken into an account since it was one of the most major issues that was concerning distance teachers with little to none experience on distance teaching. The issues with time and the workability of technology are important to take into notice, but workshops might not be the best place for that either. In this kind of cases tutoring could be arranged. In the matters of the workability of technology and time the schools' responsibility of their

teacher grows and a proper support system must be provided by the school, especially for the technological matters. The issue with online learning environments was also closely related to the subtheme of games and task, since a lot of the tasks and games are executed in the online learning environments. In workshops different online learning environments could be introduced and taught how to use them.

As can be seen from the results, distance teaching experts and starting distance teachers have on some areas differing opinions on what is challenging, what should be paid more notice on and what matters are self-evident. Creating strong tutoring networks for activity-based distance teaching would help all professionals who are working with matters that are related to distance teaching and learning. Distance teaching experts would get to share their knowledge and spare commencing distance teachers from reinventing the wheel. Experts would have a partner who is just starting, who might have new insights and views on the topics they might have overlooked, forgot or just have not thought about. This would be beneficial for both parties. This could also help educational policy makers, since they could get opinions from teachers who are working in the field and from distance teaching experts.

The data for this research was gathered by different people and in different times during the ArkTOP-project and also in different times during my research process. Most of the data I have used in my study was not indented as a research material when they were conducted: the meeting memos, e-mail chains, Power Point presentation about activity-based distance language teaching, and the comments about the themes covered in the theory part of the workshop. Only the e-mail interviews and phone interviews were indented being research material. I got the data that I had not gathered myself or that was not indented being a part of the research first in the research process. That set a frame and showed the direction where the research would go, but it also gave an opportunity to look into the original ideas of the distance teaching experts and see what they considered

being important. Therefore, those materials are very authentic, and they have not been affected by my research or its framework.

If there would have been more time and other resources, it would have been interesting to interview also the distance teaching experts and get more into the “whys” of their ideas and views on the matter. Also, since this research is a case study, the results of it cannot be generalized and the results are tied to this case. With more time and other resources, it would have been interesting to use also quantitative methods so that I could have gotten a broader view on the teachers’ in-service training needs related to activity-based learning in distance teaching. Nevertheless, now I was able to get deep in the descriptive reasons behind the education needs and get an insight also on why activity-based learning is important part in distance teaching.

For future research it would be great to do a quantitative research of this topic and see if the results of this study could be generalized. It would be also interesting to research how schools are prepared to support distance teachers, and especially activity-based distance teaching. Since, based on this study the support from school is needed especially in the technological matters and whether there is time to plan and learn how distance teaching works. If activity-based distance teaching tutoring networks would be developed, it would also be extremely interesting to study how tutoring between teachers would work and would it help commencing distance teachers to start.

Teaching in distance learning environments differs from the traditional close contact teaching and there must be in-service training for that. Tutoring could be one solution for the demand of in-service training of teachers, if a strong tutoring network would be formed, it would help both, the commencing distance teachers and experienced distance teachers. Teachers with more experience could help the commencing distance teachers to get to know what are the issues that must be taken into notice, and all could share ideas for example, on games and tasks that works in activity-based distance teaching.

Creating tutoring networks for activity-based distance teaching would promote shared expertise between teachers, workers on education field and policy makers. Tutoring could happen locally, then local issues and matters could easily be taken into notice; but it could also be done on a national level and even internationally. If the tutoring would happen via distance teaching technologies, it would promote to further the know-how on technological matters and even reduce the anxiety towards them.

However, workshops and other trainings are extremely valuable, since there distance teaching experts are able to share the newest research in the field and share their expertise on the matter. That will help commencing distance teachers get valuable information of what is going on the field and especially, what are the important aspects that must be taken into account in activity-based distance teaching. Workshops are also a great meeting place for distance teaching experts and commencing distance teachers. As it is stated in this study, commencing distance teachers need and want support on how to make the tasks and games more activity-based, how to differentiate teaching, how to monitor the students' learning and participation, how to motivate students, how to evaluate distance learning and what kind of online learning environments are functional. In these situations, workshops and other trainings that are directed for in-service teachers, have an important role to play. Also, the distance teaching experts get new insights from workshop participants of what is happening in the school field and what kind of requirements there are.

Quality distance teaching is extremely important in achieving equality in the sparsely populated areas where distances are long and where are not so many opportunities to choose from. For example, music-oriented classes are not available in every town and the opportunities to study different languages in secondary schools are fewer in sparsely populated areas. Activity-based learning is a way to improve the quality of distance teaching and they should be combined as a default.

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## Appendices

### Appendix 1 / Sähköposti haastattelukysymykset – E-mail interview questions

1. Millä luokka-asteella sinulla on eniten opetusta? Varhaiskasvatus, alakoulu, yläkoulu, lukio, ammatillinen toinen aste, amk, yliopisto, vapaa sivistystyö, muu, mikä? – At what grades do you mostly have distance teaching? Early childhood education, primary school, secondary school, high school, vocational school, university of applied sciences, university, adult education, other, what?

2. Jos opetat etänä, kuvaile omaa ja oppilaiden osallistumista etäopetukseen käytännössä. Valitse seuraavista tai kuvaile, miten muutoin etäopetus on toteutettu: - if you do distance teaching, describe your and your students participation in practice. Choose from the following or describe, in what other way distance teaching has been executed:

A) opettaja yksin etäyhteydessä, - teacher alone at a distance

B) kaikki oppilaat omilla etäyhteyksillä, - all students with their own distance education connections

C) osa oppilaista etäyhteydessä - osa luokassa, opettajan kanssa – some students via their own distance education connections – some in the class with teachers

D) osa oppilaista etäyhteydessä - osa luokassa, opettaja etänä – some students with their own distance education connections – some in the classroom, teacher from a distance

E) osa oppilaista yksin etänä, osa oppilaista yhdessä etänä ja osa oppilaista lähiopetuksessa, - some of the students by themselves in a distance, some of the students together in distance and some of the students in closecontact teaching

F) muu, mikä? - other, what?

3. Mikäli olet toiminut etäopettajana, - If you have been a distance teacher,

a) kuinka kauan olet tehtävääsi hoitanut? – How long?

b) millaisia kokemuksia sinulla on etäopetuksesta? - What kind of experiences do you have from distance teaching?

4. Ellet ole toiminut etäopettajana mutta mahdollisesti tulet toimimaan, mitä odotuksia ja/tai mitä epätietoisuutta se sinussa herättää? – If you have not been a distance teacher but you might be, what expectations and/or uncertainties you feel?

5. Millaisessa tilanteessa etäopetus on tarpeellinen? – In what situations distance teaching is important?

6. Mitä mielestäsi on toiminnallisuus etäopetuksessa? – What do you think activity-based distance teaching is?

7. Kuvaile, minkälaista toivoisit toiminnallisen etäopetuksen olevan? – Describe what kind of you would hope activity-based distance teaching being?

8. Minkälaiset asiat sinua toiminnallisessa etäopetuksessa askarruttavat? – What kind of things worries you in activity-based distance teaching?

9. Mitä lisäarvoa toiminnallisuus tuo etäopetukseen? – What activity-based learning adds in value to distance teaching?

## **Appendix 2 / puhelinhaastattelukysymykset – Phone interview questions**

Oletko opettanut etänä? – Have taught from a distance?

Kuinka pitkään? – How long have been a distance teacher?

Oletko kohdannut teknisiä ongelmia? Miten olet hoitanut ne? / Huolettaako tekniset ongelmat? Uskoisitko saavasi apua, mikäli niitä tulee? – Have you encountered technical problems? How have you handled them? / Do technical issues worry you? Do think, you would get help if you would encounter technical issues?

Mitä e-oppimisympäristöjä olet käyttänyt? / Mitkä e-oppimisympäristöt ovat tuttuja? – What e-learning environments have you used? / What e-learning environments are familiar to you?

Onko/Olisiko etäopettaminen mielekästä? Miksi/miksi ei? – Is/would distance teaching be pleasant for you? Why/why not?

Mitä toiminnallinen etäopetus on? – What is activity-based distance teaching?

Tahtoisitko käyttää enemmän toiminnallisuutta etäopetuksessa? /

Hyödyntäisitkö toiminnallisuutta etäopetuksessa? – Would you like to use activity-based learning methods in distance teaching? / Would you utilize activity-based learning methods in distance teaching?

Mitä toiminnallisen etäopetuksen onnistumiseen tarvitaan? / Mitä uskoisit tarvittavan? – What is needed for successful activity-based distance teaching? / What do you think would be needed for successful activity-based distance teaching?

Miten perinteisen luokkahuone opetuksen toiminnallisuus eroaa etäopetuksen toiminnallisuudesta? / Mitä arvelisit eroiksi? – How the activity-based learning in distance teaching differs from the activity-based learning in close contact teaching? / What do you think the differences would be?

Minkälaista on etäopetuksen arviointi? Miten arvioit etäopetuksessa? – What kind of evaluation is in distance teaching? How do you evaluate in distance teaching?

Poikkeaako arviointi siitä, miten perinteistä opetusta arvioidaan? Miten? – Is the evaluation different from what it is in close contact teaching? How?

Mitä tukea tarvitsisit toiminnalliseen etäopetukseen? Olisiko sitä saatavilla? – What kind of support would you need for distance teaching? Would you get it?

Missä tahtoisit kehittyä etäopettajana? – In what areas would you want to develop as a distance teacher?

Minkälaista kanssakäymisestä on etäoppilaiden kanssa? – What kind of is your relations with distance students?

Miten valvot etäoppilaiden opiskelua/luokkahuonetta etänä? – How do you monitor distance students learning in distance teaching?

Oletko eriyttänyt etäopetusta? Miksi? Miten? / Eriyttäisitkö? – Have differentiated distance teaching? Why? How? / Would you?

Mikä etäopetuksessa motivoi? – What motivates in distance teaching?