PRE-SERVICE TEACHERS' PERCEPTIONS OF ONLINE TEACHING AND THEIR EFFECTS ON SELF-EFFICACY BELIEFS

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Tiivistelmä – Abstract

Maaliskuussa 2020 julistetuista poikkeusoloista johtuen koulut ympäri Suomen joutuivat siirtymään etä-opetukseen koronavirustartuntojen ehkäisemiseksi. Nämä poikkeusolot vaikuttivat myös Jyväskylän yliopiston toimintaan ja englannin opettajaopiskelijoihin, jotka joutuivat suorittamaan keskeneräisen opetusharjoittelunsa loppuun etäopetuksen välityksellä. Tämä haastoi opettajaopiskelijoiden jo luotuja käsityksiä omasta opettajuudesta ja minäpystyvyydestä sekä edellytti uusien opetusmetodien omaksumista.

Pro gradu -tutkielmani tavoitteena oli selvittää, mitkä minäpystyvyyden lähteet ovat englannin opettajaopiskelijoille merkittävimpiä opetusharjoittelun aikana. Tavoitteena oli myös tutkia opettajaopiskelijoiden käsityksiä etäopetuksesta ja sen koettuja vaikutuksia heidän minäpystyvyytensä. Tutkimus toteutettiin puolistrukturoituna teemahaastatteluna, ja haastattelut analysoitiin laadullista sisällönanalyysia käyttäen. Haastattelut toteutettiin marras-joulukuussa 2020, ja tutkimukseen osallistui kahdeksan Jyväskylän yliopistossa opetusharjoittelunsa maalis-huhtikuussa 2020 suorittanutta englannin opettajaopiskelijaa.

Tutkimuksen tulokset osoittivat, että osallistujille merkittävissä minäpystyvyyden lähteissä oli hajontaa, mutta keskisimpinä esiin nousivat vuorovaikutus ohjaavien opettajien kanssa ja heiltä saatu tuki, opiskelijatovereiden opettamien tuntien observointi ja niistä voimaantuminen sekä henkilökohtaiset onnistumisen ja epäonnistumisen kokemukset opettaessa. Tutkimustuloksista kävi myös ilmi, että käsitykset etäopetuksesta olivat jakautuneita. Negatiivissävytteiset käsitykset liittyivät vuorovaikutuksen puutteellisuuteen, teknologisiin vaikeuksiin, ja lisääntyneeseen ajankäyttöön tunteja suunnitellessa. Positiiviset käsitykset puolestaan liittyivät pääosin ohjaavien opettajien aiempaa ymmärtäväisempään vuorovaikutustyyliin sekä osallistujien aiempaa matalampiin henkilökohtaisiin odotuksiin. Tutkimustulosten mukaan etäopetuksen vaikutukset osallistujien minäpystyvyyden tunteeseen olivat joko positiivisia tai merkityksettömiä. Etäopetus uutena taitona koettiin minäpystyvyyttä lisäävänä tekijänä, mutta sen irrallisuus kokemuksena esti sitä vaikuttamasta merkittävästi perinteisessä luokkahuoneessa omaksuttuun opettajaidentiteettiin ja minäpystyvyyden tunteeseen.

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1   INTRODUCTION

The spring of 2020 marked the beginning of the ongoing Covid-19 pandemic, and on the 15th of March, the Finnish government enforced a four-week lock down, during which social contact between people was minimized. This also affected Finnish schools, which were forced to move away from contact teaching and switch to teaching online at a distance. Prior to the pandemic, fully online teaching at such a scale had never been implemented, and schools were faced with the challenge of providing teaching at a distance that still met learning and teaching goals effectively.

The transition from contact teaching to online teaching also affected pre-service teachers completing their year of teaching practice at the University of Jyväskylä. Along with in-service teachers, pre-service teachers had to learn how to manage themselves in a fully online classroom and finish their year of teaching practice without the physical co-presence of their students. These fundamental changes in the conditions of teacher training presented pre-service teachers with new technological and pedagogical challenges.

Previous research on fully online teaching has presented it as an alternative approach to teaching, which fundamentally differs from contact teaching (Boettcher and Conrad, 2016; Major, 2015; Miller, 2014; Palloff and Pratt, 2013): communication is technology mediated, student engagement and interaction is reduced, and the importance of technological competencies is emphasized. However, most of these studies have not considered the prospect of a mandatory transition to online teaching, nor the effects it can have on pre-service teachers still completing their teacher training. Given that online teaching involves radical changes in teachers' approaches to instruction and managing a class (Major, 2015), it also affects the way they perceive themselves as teachers.

Bearing in mind that online teaching prior to the pandemic had never been included in the teacher training program at the University of Jyväskylä, pre-service teachers in the spring of 2020 had to adapt to an unforeseen change in teaching conditions, which included collective feelings of uncertainty and anxiety for many. The way an individual can overcome such challenges in their personal and professional lives is connected to the concept of self-efficacy. Self-efficacy defines how well-equipped an

individual is to carry out tasks in specific areas of life (Bandura, 1997), and in the case of pre-service teachers, the foundation for their self-efficacy beliefs about teaching is constructed during their teacher training.

The present study focuses on the construction of self-efficacy beliefs during the year of teaching practice. It also examines the perceptions of online teaching and its effects on self-efficacy beliefs held by English pre-service teachers at the University of Jyväskylä. By analyzing interviews by eight English pre-service teachers, the goal is to investigate which sources of self-efficacy they perceive as influential in the construction of their self-efficacy beliefs, and also how these beliefs were affected by the transition to online teaching. This study will also focus on pre-service teachers' perceptions of online teaching and how they differed from contact teaching.

First, the concept and nature of self-efficacy and the construction of self-efficacy beliefs is introduced and discussed (Chapter 2). This chapter will also examine pre-service teachers' self-efficacy in relation to ICT use. Then, drawing on previous research, online teaching as an alternative approach to contact teaching will be presented, followed by an evaluation of its affordances and constraints (Chapter 3). After the theoretical framework for this study has been introduced, the aim and contents of the present study will be discussed in more detail (Chapter 4). In this chapter, language teaching practice at the University of Jyväskylä will be described, followed by a rundown of the data collection and interview processes. The main methods of analysis will also be presented. The main results of the analyzed data will be presented in Chapter 5 and a discussion of the main findings will be presented in Chapter 6. Finally, Chapter 7 will provide the concluding statements for this study.

2 SELF EFFICACY

The first part of this chapter introduces the concept of self-efficacy, drawing on Bandura's (1995) four-way categorization for the sources of self-efficacy beliefs, as well as other existing studies on self-efficacy by Tchannen-Moran, Woolfolk-Hoy and Hoy (1998), Kiili, Kauppinen, Coiro et al. (2016) and other scholars. Secondly, studies and previous literature on the experiences and beliefs of pre-service and in-service teachers (Lazarides & Warner, 2020; Valcke, Sang, Rots et al. 2010; Valtonen, Kukkonen, Kontkanen et al. 2015) will then be presented to demonstrate the contexts in which their self-efficacy beliefs are constructed. The third part of this chapter is dedicated to discussing self-efficacy and its connection to Information and Communication Technologies (ICT), with focus on the experiences and attitudes of pre-service teachers, the role of formal teacher training as well as the relevance of general self-efficacy in relation to ICT use. This third section examines the developing role of ICT in teaching and how the recent technological advances in the field of teaching have presented new challenges for both in-service and pre-service teachers. These challenges have been widely studied (Alenezi, 2016; Biminglas, 2009; Drent & Meelissen, 2008) and they have been found to have effects on teacher self-efficacy (Kiili et al., 2016; Wang, Ertmer & Newby, 2004).

2.1 Self-efficacy beliefs

Self-efficacy refers to the way an individual perceives and judges their own ability to carry out and perform specific tasks (Bandura, 1997). Albert Bandura (1995;1997) is renowned for his social cognitive theory and he is also applauded by many for his extensive body of work on self-efficacy. Bandura (1995:3) himself describes this theoretical framework for self-efficacy as follows:

A comprehensive theory that explains, within a unified conceptual framework, the origins of beliefs of personal efficacy, their structure and function, the processes through which they operate, and their diverse effects.

Thus, self-efficacy beliefs indicate how confident one feels in succeeding in specific areas in life. Self-efficacy, however, should not be confused with other seemingly similar concepts, such as "self-worth" or "self-esteem", as self-efficacy is task specific (Tschannen-Moran et al. 1998) and it affects an individual's way of responding to environmental challenges and opportunities (Bandura, 2006). People strive for a feeling of control in almost everything they do, and a lack thereof "breeds apprehension, apathy or despair" (Bandura, 1995:1). In contrast, positive experiences with challenging tasks can boost one's confidence and result in increased self-efficacy. Therefore, self-efficacy has a pivotal role in one's personal and professional life, as it affects the amount of effort one dedicates to given endeavors and their perseverance in the face of challenges or adversity (Bandura, 1997). Thus, the framework exists to provide a way to examine and determine how an individual's beliefs about their own capabilities of succeeding affect their personal agency in various areas of life.

In addition to providing a comprehensive theoretical framework for the concept of self-efficacy, Bandura has also devised four-way model for the sources of self-efficacy beliefs (1995). According to this model, an individual's self-efficacy is affected by receiving information from four different sources (Bandura, 1997), and within this model, the sources are listed top-down from the most effective to the least effective. These four sources are: (1) mastery experiences, (2) vicarious experiences, (3) social persuasion and (4) enhancing physical status, reducing stress and correctly interpreting emotions. According to Bandura (1997), it should be noted that the four sources of self-efficacy in the presented model do not work in isolation from one another, and the extent to which these sources affect an individual's self-efficacy beliefs is largely dependent on one's ability to interpret the related experiences.

Through the first source of self-efficacy beliefs, which is mastery experiences, Bandura states that an individual receives concrete evidence whether they can carry out a certain task or not. Successful mastery experiences build and strengthen an individual's beliefs of self-efficacy, while failures and unsuccessful attempts have an undermining effect (Bandura, 1997). According to Bandura (1997), mastery experiences should not be related to tasks that are too easy and result in quick success, or else they may discourage an individual in the face of failed mastery experiences. It should also be noted that not all failed mastery attempts will automatically undermine self-efficacy. If one believes in their capability of succeeding in a task, but acknowledges that the current approach is not yielding desired results, failure in this task will not necessarily lower self-efficacy (Bandura, 1997), nor will an occasional failure after many successful mastery experiences (Shunk & Usher, 2011, as cited in Kiili et al. 2016:

4). Additionally, if a successful or a failed mastery attempt is the result of luck or someone else intervening, it is not likely to affect self-efficacy (Bandura, 1993; Pintrich & Schunk, 1996, as cited in Tschannen-Moran et al. 1998).

The second source of self-efficacy beliefs in Bandura's model are vicarious experiences (1995). Vicarious experiences are experiences in which an individual can observe people like themselves, such as their colleagues or peers, succeed or fail in relatable situations in similar tasks. Witnessing people in similar life situations succeed can provide much needed affirmation that one is also capable of succeeding. Such social reference points can provide an individual concrete examples of how to perform similar tasks themselves, which automatically increase self-efficacy and their probability of succeeding (Howardson and Behrend, 2015). According to Bandura (1995), vicarious experiences either increase or undermine self-efficacy, based on how similar the observed model behavior is. If an individual cannot identify with the observed model behavior, i.e., the similarity between tasks is not strong enough, vicarious experiences can have adverse effects on self-efficacy. A decrease in self-efficacy through vicarious experiences can also take place, if the observed model behavior is followed by a "subsequent performance failure" (Urdan, 2016: 73). In contrast, if the individual identifies strongly with the observed model behavior, vicarious experiences can increase self-efficacy.

The third way of affecting an individual's self-efficacy beliefs is social persuasion (Bandura, 1995). When faced with challenges, an individual can be verbally persuaded and convinced of their chances of succeeding, which can increase in the amount of time and effort put into the task, and thus increase the chances of success as a result (Litt, 1988; Schunk, 1989, as cited in Bandura, 1995: 4). Social persuasion can also take place after completing a task, through performance evaluations, for example (Urdan, 2016: 253). Given the plausible positive effects of social persuasion on self-efficacy beliefs, it is also important to acknowledge that social persuasion should not exceed realistic expectations, so that a subsequent failed experience should not be more detrimental to self-efficacy (Bandura, 1995)

The fourth and final source for self-efficacy beliefs in Bandura's model (1995) is one's ability to correctly interpret bodily sensations, such as stress or elevated heart rate. Bandura's model suggests (1995: 4) that the different ways in which people interpret emotional and psychological states can be beneficial or detrimental to their sense of self-efficacy. For example, anxiety prior to performing a specific task may be interpreted as a lack of related competence, thus undermining self-efficacy. However, if an increased heart rate is interpreted as a sign of excitement and readiness to face a challenge, it may work to enhance their performance (Bandura, 1997). Additionally, positive mood enhances perceived self-efficacy, whereas negative mood undermines it (Kavanagh and Bower, 1985, as cited in Bandura 1995: 4).

2.2 The role of self-efficacy beliefs in teacher development

Bandura's self-efficacy theory has been applied in several professional contexts, one of which is the development of teacher self-efficacy. Teacher self-efficacy has been widely studied (Bandura, 1997; Skaalvik & Skaalivik, 2010; Tschannen-Moran et al., 1998; Yeşilyurt, Ulaş & Akan, 2016) and it can be defined as the way in which the teacher feels capable of meeting student learning goals effectively by applying their different academic, social, and professional skills in teaching related contexts.

Even though a general definition for teacher-self efficacy has been created, its exact nature remains rather unclear (Tchannen-Moran et al., 1998). This is most notably due to the malleable and fluctuating nature of self-efficacy and because it is unclear whether the traditional ways of assessing it, such as Bandura's models (1995; 1997) are applicable when measuring teacher self-efficacy. Tschannen-Moran & Hoy (2001) point out that the definition of teacher self-efficacy may be fleeting because teachers do not necessarily feel as efficacious in all teaching situations, as efficacy in one subject matter does not guarantee efficacy in another (Bandura, 1997, as cited in Tschannen-Moran et al. 1998: 219). This is further supported by Bandura (2012), who states that an individual's self-efficacy is not shared across all tasks in all areas of life.

Still, Bandura's four-way model of the sources of self-efficacy can also be used to gauge the development of pre-service teachers' self-efficacy beliefs (Tschannen-Moran et al., 1998). However, Lazarides and Warner (2020), drawing on Morris, Usher and Chen (2017), point out that the way in which the four sources in Bandura's model work in relation with each other has made it difficult to provide empirical evidence of how each of the sources affect teacher self-efficacy individually. It should also be noted that Bandura's Teacher Self-Efficacy Scale (1997) has been deliberately excluded in this section as it covers areas of teaching that far exceed what is expected of pre-service teachers. Therefore, this section will primarily examine how Bandura's four sources of self-efficacy (1995) are connected to teacher development.

Teacher training has been found to have significant effects on the construction of self-efficacy beliefs of pre-service teachers (Tuchman & Isaacs, 2011; Valtonen et al., 2015), and that they are more likely to change than those of more experienced teachers (Valcke, Sang, Rots et al, 2010). In fact, a longitudinal study by Hoy (2000) focused on the changes in pre-service and novice teachers' self-efficacy before, during and after an extensive period of teaching. The results suggested that the participants perceived self-efficacy decreased with actual teaching experience. The changes in self-efficacy were correlated with personal and contextual factors, such as feelings of success and satisfaction in one's own performance, as well as the perceived difficulty of teaching tasks and the amount of support (Hoy, 2000). These findings resonated with those by Woolfolk and Hoy (1990), who found out that self-efficacy beliefs of pre-service

teachers tend to decrease when theoretical coursework is replaced by actual student teaching. Tschannen-Moran et al. (1998) link this to pre-service teachers' tendency to overestimate their capabilities during the early stages of teaching, resulting in unsatisfactory perceived performance, which can result in lowered standards in the future.

When pre-service teachers are concerned, two main sources from Bandura's model (1995) can be seen to play an important role in the construction of their self-efficacy beliefs: mastery experiences and vicarious experiences. First, the role of mastery experiences becomes evident in the case of pre-service teachers (Juuti et al., 2018). Throughout their studies, pre-service teachers are subjected to numerous teaching contexts through coursework and hands-on training. This is a crucial time period in regard to their professional lives, as the fundamental beliefs about teaching are well established before or during pre-service teachers' training, and these beliefs create a system that is difficult to change, i.e., the beliefs of teachers about their profession and their capabilities can remain rigid. (Valcke et al. 2010, Hoy 2000). Mastery experiences during the early stages of teaching, such as teacher training, have also been found to be some of the most important self-efficacy defining factors among inexperienced teachers (Hoy, 2000). A study by Spector (1990, as cited in Coladarci, 1992: 325) revealed a linear increase in self-efficacy beliefs among pre-service teachers during their fourth year, which involved extensive student teaching. However, Hoy (2000:5-6) emphasizes that too drastic a transition from theoretical coursework directly to teaching can be harmful to pre-service teachers' beliefs about their self-efficacy.

Additionally, the ways in which teacher training is organized varies from university to university and faculty to faculty. Therefore, pre-service teachers do not share the same trajectory in their pedagogical studies and are therefore not subjected to the same experiences. In Finland, for example, English pre-service teachers complete their teaching practice during a single year, whereas in some other faculties, this is carried out less intensively over the course of several years. Regardless, these experiences have a pivotal role in pre-service teachers' professional development, which is pointed out by Day (1999). Day (1999: 18) states that "teachers must be provided with growth opportunities which go far beyond the instrumentalism which pervades much current practice if they are to be encouraged to meet student learning needs effectively". This entails that pre-service teacher should be given the opportunity to gain experiences in emergent approaches in the field, such as novel teaching methods and teaching technologies, grounding their beliefs in personal experiences in teaching, rather than an ideal model (Uibu et al, 2017).

Moreover, according to Hoy (2000: 5), many pre-service teachers maintain a level of optimism in their studies, but this optimism "may be somewhat tarnished when confronted with the realities and complexities of the teaching task". Sancar Tokmak and Karakus (2011) also inferred that pre-service teachers may struggle with using

their theoretical knowledge about teaching in practice. Both findings align with those by Wideen et al. (1998, as cited in Valcke et al., 2010: 625), who suggest that pre-service teachers foster a level of naïveté when it comes to their expectations about teaching. Consequently, these expectations can result in the pre-service teachers feeling overwhelmed during their first hands-on experiences in the classroom.

The second important source of self-efficacy beliefs in teacher development are vicarious experiences, which present a social context for the development of pre-service teachers' self-efficacy. The most evident vicarious models available for pre-service teachers are observing their peers teach classes and undertake similar tasks with varying levels of success. For example, the pre-service language teachers in Finland are obliged to observe a certain number of classes taught by their peers during their year(s) of pedagogical subject studies. These classes function as sources of inspiration, as well as a way for pre-service teachers to witness their peers perform in front of the class as teachers. The observed classes are often those of one's own major or minor subject, and thus there is a strong similarity in the social models, which according to Bandura (1997, 2012), influences the construction of self-efficacy beliefs. However, the extent to which pre-service teachers can identify with their peers and the observed models is subject to change, as no pre-service teacher teaches the same course material to the same class more than once.

Thirdly, studies suggest that the role of teacher educators is one of significance when the development of pre-service teachers' self-efficacy beliefs are concerned (Bandura, 1997; Uibu et al, 2017; Juuti et al., 2018). Social persuasion, the third source of self-efficacy beliefs in Bandura's model (1995) is tightly connected to the teacher education system in Finland, as pre-service teachers actively cooperate with their supervising teachers during their teaching practice. Juuti et al. (2018: 428) emphasize that not only is supervisor feedback essential for the development of self-efficacy beliefs of pre-service teachers, but the active support which the supervising teacher educators provide can also help pre-service teachers overcome teaching situations that could otherwise negatively affect their self-efficacy. This is also suggested by O'Neill and Stephenson (2012), whose survey study of 573 Australian pre-service teachers found out that among a multitude of factors influencing self-efficacy during their teaching practice, feedback from their cooperating teachers or tertiary advisors was ranked among the most influential. This positive effect was amplified, if the pre-service teacher saw their supervisors as competent (O'Neill & Stephenson, 2012).

However, research evidence on the importance of feedback on self-efficacy seems to be inconclusive. If a pre-service teacher judges their supervisor to be incompetent to provide feedback, the perceived significance of feedback and its subsequent effect on self-efficacy can be diminished (Bandura, 1997; O'Neill & Stephenson, 2012). The results of some studies, for example by Juuti et al. (2018) and O'Neill and

Stephenson (2012) also suggest that supervisor feedback has very little influence on some pre-service teachers' self-efficacy overall.

Finally, in addition to formal teacher training, a study by Tuchman and Isaacs (2011) points towards a strong correlation between pre-service teachers' informal education experiences and teacher self-efficacy. Positive experiences as camp counsellors, youth advisors or daycare supervisors was revealed to correlate with nearly all measures of self-efficacy.

2.3 Pre-service teachers' self-efficacy with ICT

In addition to effectively managing numerous areas of teaching with confidence, teachers in the 21st century are expected to enter working life with skills that enable them to use technology in their teaching in innovative and pedagogically meaningful ways (Lemon & Garvis, 2015; International Society for Technology in Education [ISTE], 2008, as cited in Kiili et al. 2016: 3). These skills should be acquired during the years of pre-service teachers' studies (Lähdesmäki & Valli, 2017; Voogt & Roblin 2012). As discussed in Section 2.2., pre-service teachers' self-efficacy beliefs are heavily affected by their experiences during their studies in the teacher training program, and in addition to learning how to manage themselves in the classroom, pre-service teachers also learn to utilize ICT during classes. The first sub-section (2.3.2) focuses on previous research and literature on pre-service teachers' experiences and attitudes in relation to ICT (Abbitt & Klett, 2017; Inan & Lowther, 2010, as cited in Kenttälä & Kankaanranta, 2017: 2; Kiili et al., 2017; Rikala, Hiltunen & Vesisenaho, 2014). The second sub-section (2.3.2) examines the effects of formal teacher training and related studies (Valtonen et al., 2021; Valcke et al., 2010; Wang et al., 2004), and the last sub-section provides a brief overview about the importance of general self-efficacy in relation to ICT use (Oliver & Saphiro, 1993; Lee & Lee, 2014; Wang et al. 2004).

2.3.1 Experiences and attitudes of pre-service teachers in relation to ICT

ICT equips teachers with tools to create diverse and engaging learning environments for their students, and all teachers should possess the necessary skills to teach confidently with technology (Kiili et al., 2016). However, many teachers tend to use ICT mostly for presentational purposes (Lähdesmäki & Valli, 2017) or their use of ICT may be reserved (Valtonen et al. 2015). The same seems to be the case with many pre-service teachers as well. Although pre-service teachers' attitudes towards ICT in teaching seem to be overall positive (Myllyviita & Lavonen, 2014, as cited in Lähdesmäki & Valli, 2017:10; Teczi, 2011) and many see a lot of potential in ICT (Haydn & Barton, 2006), studies indicate that many pre-service teachers feel unprepared to utilize ICT

in teaching (Drent & Meelissen, 2008; Kay, 2006; Barton & Haydn, 2006; Teczi, 2011). Valtonen et al. (2015), drawing on Lei (2009), link this to pre-service teachers' lack of experience with ICT and this notion resonates with the results by Teczi (2011) and Bozdogan and Özen (2014), which indicate that a lack of general knowledge on how to integrate technology into teaching can make it challenging for many pre-service teachers. Similarly, a study by Alenezi (2017) indicated that even experienced teachers may feel uncomfortable using technology due to a lack of related competence. Therefore, if teachers wish to integrate ICT into their teaching effectively, they need to gain hands-on experience (Kiili et al., 2017: 2), as well as possess sufficient tools and techniques for their use (Rikala et al., 2014), as unfamiliarity and a lack of competence with ICT inhibits teachers from taking full advantage of its potential (Ferrari, Cachia & Punie, 2011; Rikala et al., 2014).

Valcke et al. (2010) and Schrum (1999, as cited in Lemon & Garvis, 2015) emphasize that, regardless of experience, if any kind of meaningful integration of ICT in teaching is to take place, teachers need to perceive ICT as intrinsically valuable to their teaching. The use of technology in classrooms should strive towards bringing additional value to teaching, instead of merely supporting traditional ways of teaching (European Commission, 2001, as cited in Tezci, 2011: 494), but according to Bang and Luft (2013), the latter is often the case. Ways to avoid such practices are offered by Kenttälä and Kankaanranta (2017: 10), who suggest that choosing more innovative ICT over traditional computers may encourage teachers to implement them in more innovative ways.

2.3.2 The role of teacher educators and formal teacher training

In addition to personal experience, pre-service teacher's self-efficacy towards ICT in teaching is affected by the support and instruction they receive from their educators. As early as in the 1990's, Downes (1993, cited in Wang et al., 2004) discovered that out of the multiple factors affecting pre-service teachers' use of ICT, observing their educators was perceived as the most valuable. Findings by Wang et al. (2004), Goktas, Yildirim and Yildirim (2008) and Tondeur, van Braak, Sang et al. (2011) on ways to increase pre-service teachers' self-efficacy towards ICT and preparing them for its effective use, aligned with those by Downes (1993), suggesting that vicarious experiences with ICT are particularly important as a source for self-efficacy. Similar conclusions highlighting the importance of observing teacher educators effectively and innovatively integrate ICT in teaching have been reached by other researchers as well (e.g., Enochson & Rizza, 2009; Barton & Haydn, 2006). Still, how significant an effect teacher educators have on pre-service teachers' ICT use may vary due to different levels of ICT efficacy among educators (Goktas et al. 2008).

When the overall self-efficacy towards ICT among pre-service teachers is concerned, a more recent longitudinal study by Valtonen, Hoang, Sointu et al. (2021) revealed that even though pre-service teachers seemed to begin their studies lacking confidence with ICT in teaching, they assessed their confidence to have increased because of their teacher training. This positive development was linked to acknowledging the use of technology as an area of learning (Valtonen et al., 2021), which further highlights the value of formal teacher training as a source of self-efficacy. Studies on pre-service teachers' self-efficacy towards technology integration by Lee and Lee (2014), as well as Valtonen et al. (2015) revealed that course work dedicated to learning and practicing the use of ICT increased pre-service teachers' self-efficacy in relation to it and encouraged them to use it in teaching contexts.

Moreover, another study on what pre-service teachers perceived as useful to their ICT self-efficacy by Barton and Haydn (2006) also emphasizes the importance of teacher educators as role models during pre-service teacher's studies in the teacher training program. In addition to offering vicarious experiences, according to Barton and Haydn (2006), teacher educators should not provide pre-service teachers with merely vague suggestions as to where and when ICT could be implemented, but also give them hands-on guidance. In a study on pre-service teachers' experiences and competencies, Chen, Lim and Tan (2010: 637) suggest that teacher educators should also "provide a conductive and non-threatening environment for pre-service teachers to experience success in ICT for teaching and learning". A lack thereof can consequently be seen to place too large a responsibility on pre-service teachers, who may already feel overwhelmed with the amount of ICT resources available (Barton & Haydn, 2006).

2.3.3   General self-efficacy as teachers and in relation to ICT

Pre-service teachers have "good access to mainstream ICT devices" (Chen et al 2010: 637), but studies on the connection between self-efficacy in relation to ICT and the way it affects pre-service teachers' ability to successfully integrate it into their teaching have yielded inconsistent results. Niederhauser and Perkmen (2010, as cited in Teczi, 2011) found out that higher self-efficacy with ICT motivated pre-service teachers to use ICT in the classroom. Similar findings have been presented by Lee and Lee (2014), who found out that pre-service teachers with higher self-efficacy beliefs about ICT use in general are more likely to use it more effectively. These results also aligned with findings by Ertmer et al. (2003, as cited in Lee & Lee, 2014: 127), who suggest that pre-service teachers' positive attitudes towards technology use is a critical factor in its integration.

Additionally, higher teacher self-efficacy in general does not directly mean efficacy with ICT (Wang et al., 2004), as the two concepts are relatively separate from one

another (Kiili et al., 2016). However, a higher level of general teacher self-efficacy can indicate an increase in pre-service teachers' confidence in adopting new technological approaches to teaching and their successful implementation (Oliver & Saphiro, 1993).

3   ONLINE TEACHING AND ICT

According to Major (2015), despite a growing number of faculties adopting online and distance learning courses in the curricula, the effects of these teaching methods remain rather unclear. These web-based teaching and learning environments present major challenges and opportunities to the teacher when it comes to learning and utilizing teaching tools effectively, and this chapter will aid in understanding the fundamental changes that emerge when transitioning from classrooms to online teaching. The first part of this chapter will examine online teaching as an instructional form, with emphasis on synchronous online teaching, and introduces technology mediated teaching and learning contexts as they have been studied and presented by Boettcher and Conrad (2016) Major (2015), Miller (2014), Palloff and Pratt (2013) and other scholars. The second part of this chapter provides an overview of the main affordances and constraints that emerge with the replacement of contact teaching with online teaching. These will be discussed in their own sub-sections in relation to four aspects of teaching: 1) time management 2) communication and interaction 3) student engagement and 4) implementing information and communication technologies. Finally, the third part of this chapter will look at the role of ICT in online teaching with an emphasis on the teacher's perspective. This sub-section sheds light on the types of positive and negative effects different ways utilizing technology in teaching can have on online teaching and learning.

3.1   Approaches to online instruction

Advances in the field of computing technologies and their rapid adoption in teaching contexts since the 1980's has presented schools with the opportunity to provide teaching that does not take place in the physical classroom (Major, 2015; Palloff & Pratt, 2013) and it has become ubiquitous (Palloff & Pratt, 2013: 4). This technology mediated

teaching in an online context is fundamentally different from standard classroom teaching (Major, 2015), and new teaching strategies, technologies and approaches to course design need to be adopted (Boettcher & Conrad, 2016). What is more, to understand the challenges and opportunities these alternative teaching environments can provide, the nature of synchronous online teaching should be understood better. This sub-section will aid in understanding the core features of online teaching and how it differs from contact teaching.

In online teaching, ICT provides the necessary context for communication and instruction (Major, 2015), and despite the evident lack of a shared physical learning space, online and standard classroom teaching share a lot of fundamental features. Thus, to some extent, the same criteria by which the effectiveness of classroom teaching is evaluated, can be applied to online teaching as well (Tobin, 2015). However, as Boettcher and Conrad (2016) emphasize, efficacy as a teacher in a classroom does not directly translate to efficacy in an online teaching environment. Additionally, transitioning to online teaching is not as simple as copying pre-existing course materials or applying "tried and true models of pedagogy" in a different context (Palloff & Pratt, 2013: 21, Todd, 2020). This is also highlighted by Lähdesmäki & Valli (2017: 9), who state that teaching with ICT "requires combining the use of the technology and the pedagogical practices". Thus, when face-to-face communication is replaced with technology mediated instruction, the teacher must re-evaluate their methods and approaches if they are to successfully achieve student learning goals online. According to Major (2015: 180), replacing a physical learning space with online teaching "requires and ensures fundamental changes to the ways in which teaching and learning happen", and the extent to which a teacher needs to change their approach to teaching depends on whether the teaching is synchronous or asynchronous (Palloff & Pratt, 2013), the target group, as well as the teachers' aptitude for learning and utilizing ICT effectively in their teaching (Vesisenaho, Valtonen, Wulff et al., 2016).

Synchronous online teaching, which takes place in real time, either through a video connection or a real-time chat (Palloff & Pratt, 2013) is the closest alternative to classroom teaching that any easily accessible form of technology mediated teaching can provide. It gives the teacher the means to engage with their students during the lesson and allow them to change the structure of the lesson if the need arises (McBrien, Cheng & Jones, 2009). This two-way engagement is important, since real-time communication is a way to ensure the students have the chance to play an active role in the learning process. This has been studied to be one of the key factors in achieving learning goals effectively (Swenson & Taylor, 2012; Vesisenaho et al. 2016). Many students also feel that being able to participate during the class is important (Palloff & Pratt 2013). However, according to Miller (2014), synchronous online teaching

removes the freedom to tailor a personalized schedule, which is often the reason students choose online courses that do not require real-time attendance.

Alternatively, online teaching can also be carried out asynchronously without a direct video, voice or chat connection between the teacher and the students. This form of online teaching is more student oriented and requires a certain level of independence, as the simultaneous presence of the teacher is removed (Major, 2015). This means that teaching does not coincide with specific time slots in the teacher's schedule, but rather, they can pre-record videos and prepare a week's worth of material during a single teaching session, which they then make available for the students daily of weekly. Additionally, Stone and Perumean-Chaney (2011: 396) state that any form of online learning, whether synchronous or asynchronous, requires that the students assume a more independent role and reach out for help if needed, as the presence of teachers in online teaching is reduced and they cannot read the room or present questions to ensure understanding (Davis, Gough & Taylor, 2020).

In addition to changes in interaction and communication, teachers need to make conscious adjustments to their personas when switching from classrooms to online teaching (Major, 2015: 164). The questions raised by Major (ibid.: 165) about teachers' online personas include whether teachers should try to replicate their classroom persons as accurately as they possibly can or not, or whether it is easier to present a more stripped-down version of oneself, seeing as online communication does not allow for the emotional and non-verbal nuances of face-to-face interaction.

3.2   Affordances and constraints of online teaching

It is important to acknowledge that the *de facto* effectiveness of traditional classroom teaching has never really been questioned (Miller, 2014: 19) and when online teaching is considered, its methods and achieved learning outcomes tend to face more scrutiny than those of traditional classroom teaching. However, according to Miller (2014: 14), the outcomes and effects of technologically mediated, fully online teaching should be examined. Although "online and face-to-face teaching share core teaching behaviors" (Tobin, 2015: 18), the fundamental changes in communication, instruction, student engagement and the use of ICT force the teachers to re-evaluate their teaching. Thus, this section will look in detail at the affordances and constraints of synchronous online teaching and their concrete effects on teaching and learning. This section is divided in to four sub-sections, the first of which introduces previous research on time management and how a teacher's time resources prior to and during classes are allotted differently when teaching online. The second sub-section focuses on the fundamental changes in communication and interaction as the physical co-presence of students and

the teacher is removed and replaced with video and/or audio mediated instruction. The third sub-section looks at how student engagement is altered when transitioning from a traditional classroom to a fully online learning environment. Finally, the fourth sub-section summarizes some of the ways in which the implementation of ICT in online teaching can pose challenges, but also opportunities for both teachers and students, focusing on related teacher and student (in)competencies, as well as the resources available to teachers, students and schools.

3.2.1 Time management

On the one hand, there is a dominant perception that online teaching requires more planning and investment from the teacher (Dumont & Raggo, 2018; Fish & Gill, 2009; Stone & Perumean-Chaney, 2011, Everson, 2009; Esani, 2010). When designing online classes, the teacher needs to become more aware of their own teaching (Ko & Rossen, 2017: 19-20) and when the physical presence of the students is removed, the teacher needs to plan more carefully how they wish to carry out specific tasks or how they want to schedule the classes (Vesisenaho et al. 2016: 7). However, investing more time in the planning process and the subsequent heightened awareness of one's own teaching has been shown to result in improved performances in regular classrooms (Ko & Rossen, 2017: 19-20). This is supported by Stone and Perumean-Chaney (2011), whose study on the benefits of online teaching shows that teachers felt like they were better equipped to apply technologies in classroom teaching after having used them in an online environment. Additionally, planning online classes may help teachers cut down unnecessary content from their teaching and focus on what is "essential for the students' understanding and learning" (Stone & Perumean-Chaney, 2011: 398).

On the other hand, as mentioned above, preparing for online classes can be very time consuming (Stone & Perumean-Chaney, 2011; Everson, 2009; Esani, 2010), and many teachers perceive it as one of the major challenges relating to online teaching (Dumont & Raggo, 2018). Deciding which platforms to use, creating materials, or assigning tasks in a way that makes sense for the students in a fully online environment requires more effort than doing so for a traditional classroom environment (Stone & Perumean-Chaney, 2011). This instructional change can feel overwhelming, and Palloff and Pratt (2013: 22) point out that many teachers continue to feel unprepared to teach online classes, which Stone and Perumean-Chaney (2011: 393) link to the teachers' and students' lack of experience with online teaching and learning environments. Moreover, not only does online teaching require additional training, but a lack thereof can lead to reluctance in adopting online teaching approaches or negatively affect their perceived value among teachers (Fish & Gill, 2009: 7).

However, since there is no need for physical, at-school or on-campus presence of either the teacher or students, online teaching can provide a lot of flexibility when

it comes to time management and scheduling other personal work (Davis, Gough & Taylor, 2020). From this perspective, online teaching can be beneficial, as it allows for the teaching to take place, whether the students and the teacher can physically make it to the classroom or not (Esani, 2010: 189).

3.2.2 Communication and interaction

In addition to time management, whether looking at synchronous or asynchronous online teaching, the nature of communication and interaction between the teacher and their students as well as amongst the students themselves changes drastically when transitioning from classrooms to online teaching (Davis et al., 2020; Miller, 2014; Esani, 2010; Todd, 2020; Major, 2015). Online communication can take place in written form, through a real-time video and/or audio connection, or through a combination of the two. Regardless of the medium of communication in online teaching, the ways in which it differs from face-to-face communication and interaction can be challenging (Davis et al, 2020; Fish & Gill, 2009; McBrien et al., 2009; Todd, 2020), but also has the potential to be rewarding and exciting (Davis et al, 2020; Weinbaum, 2016; Major, 2015).

Synchronous online teaching allows the teacher to communicate and interact with their students effectively in real time and vice versa (Palloff & Pratt, 2013: 33; Talet, 2007: 19), thus increasing the amount of perceived social interaction (McBrien et al., 2019). This is usually achieved through web-conferencing platforms (such as Zoom or Google Meet), which make it possible for the teacher to engage with their students in a way that is not too dissimilar from the way they would in a traditional classroom setting. During synchronous online teaching, in addition to their teacher, the students can also hear others talk and have their questions answered in the moment, which is valuable to many learners (Palloff & Pratt, 2013: 29), and the presence of synchronous audio can reduce the perceived distance in online teaching (Ice, Curtis, Phillips et al., 2007).

Even though video conferencing tools can work to reduce the feeling of distance during online classes (Blake, 20015, cited in Hampler & Stickler, 2012: 134), the obvious absence of physical presence in the online classroom can limit non-verbal communication and, even with a functioning video connection, the use of bodily gestures is limited (Major, 2015: 183). It is also difficult for the teacher to read their students the way they would in a classroom (Davis et al, 2020), as students can hide behind disabled cameras. This can be troublesome as, according to Davis et al. (2020), students' body language can often work as an indicator for comprehension or confusion, thus informing the teacher on whether the contents of the lesson are being understood. For example, a study on instruction-giving practices in a fully online learning environment by Satar and Wigham (2017) suggests that successful task-administration that

ensures student comprehension requires a clear distinction where instruction ends, and the task begins. As stated by Hellerman and Pekarek Doehler (2012, as cited in Satar & Wigham, 2017: 78), teachers can normally indicate this by gestures such as aligning their posture with the students or moving to a less central spot in the classroom. Given the lack of a shared physical space, doing so during an online class automatically requires more effort.

In contrast to the real-time, video and/or audio-based communication, online teaching can also involve communication that is dependent on text-based media (Esani, 2010; Murphy, Rodriguez-Manzanares & Barbour, 2011). When examining the benefits of text-based communication, it can be seen to encourage students to spend more time on their communicative output (Boettcher & Conrad, 2016: 53; Major, 2015: 183), which can lead to communication that is meaningful and reflective (Major, 2015: 169). Moreover, text-based communication can help the more reserved students feel like they have a better chance of participating and voicing their opinions than they otherwise would during a class that relies on synchronous, real-time communication. (Davis et al., 2020). A study on the effects of synchronous online teaching on student engagement by McBrien et al. (2009) suggests that shy students can feel more inclined to participate during online teaching through text-based chat options, even if the class takes place in real time, giving voices to those who tend to stay silent.

Text-based communication can, however, fall short of the multimodality of real-time, synchronous communication. Text-based communication can come across as flat and de-humanized (Palloff & Pratt, 2013: 38-39) – even sterile (Swenson & Taylor, 2012: 5). Although it is possible to convey emotions in written form by using emoticons or through other expressive choices (Major, 2015: 181), text-based communication does not allow for the non-verbal nuances of body language and gestures that accompany real talk (Miller, 2014: 59), which can easily lead to ambiguity and undesired misunderstandings (Major, 2015: 183).

3.2.3 Student engagement

With changes to communication and interaction, changes to student engagement emerge (Major 2015: 211). Major (2015: 208) defines student engagement as "the students' willingness and desire to participate and be successful in a learning process that leads them to higher-level thinking and long-term understanding". Although technology can provide the tools for effective student engagement (Kahn, Everington, Kelm et al., 2016; Miller, 2014), the extent to which students can engage with each other and the teacher during classes is heavily affected by it. This is due to the role of technology as the medium for interaction (Major, 2015: 212), and the absence of a bound physical space in which the teaching and learning takes place. Online classes can feel

intimidating to anyone who has never experienced them before (Clair, 2015:1), and if inadequate measures are taken to establish a sense of community in an online class, it can feed the students' sense of isolation, and have adverse effects on their engagement and motivation (Rovai, 2000). It can also result in feelings of anxiety and exclusion in both the teacher and the students (Palloff & Pratt, 2013: 26; Rovai, 2000).

Perhaps the most notable change in student engagement when transitioning to online teaching, is the teacher's reduced ability to directly affect it (Major, 2015: 212). Regardless of the teaching medium, teachers play a crucial role in encouraging their students to actively participate in the learning process (Mandernach, 2009) as well as finding ways to ensure the students feel motivated and connected (Rovai, 2007; Young & Bruce, 2011) This, however, becomes increasingly difficult in an online environment. As the physical learning space is removed, and the students learn in isolation, the teacher may find it impossible to determine whether their students are paying attention or engaging with the learning materials. In a shared physical learning space, bodily gestures and cues, such as raising an arm, nodding or eye contact, can indicate student engagement (Major, 2015: 212), but when teaching online, these cues may go unnoticed (Major, 2015: 2013). An interview study on the challenges of online teaching by Dumont and Raggo (2018) concluded that 30% of teachers who participated in the study (n=20) saw student engagement as one of the biggest obstacles in online teaching. These findings were in accordance with theories by Major (2015), and they revealed that the lack of feedback from the students was a major issue.

Student engagement can also be challenged by the technological interfaces utilized in online teaching (McBrien et al., 2009) as well as external distractions (Major, 2015: 212). McBrien et al. (2009) found out that some students may find the quality of on-screen stimuli in an online class inferior to those of traditional classrooms. This was linked to the perceived lack of verbal interaction during activities (McBrien et al. 2009: 13). A study by Todd (2020) suggests that this perception is also shared by English language teachers, who felt like online teaching makes it more difficult to achieve speaking objectives. Additionally, students attending class from their homes must be able to resist external distractions, such as social media and other personal technological devices (Major, 2015: 212). Some students may feel confident about multitasking during online teaching, but the subsequent partial participation can negatively affect the online community (Boettcher & Conrad, 2016: 192).

Despite the notable challenges with engagement during online teaching, it can be argued to have elements that facilitate it – especially in the case of more reserved students. The lack of real-time communication in some online teaching contexts can be beneficial for introverted students who prefer working independently and feel intimidated by the overwhelmingly social aspects of synchronous teaching (Davis et al. 2020), giving them more control over when and how they want to participate or voice

their opinions. Furthermore, what applies to both synchronous and asynchronous online teaching, as the physical presence of students is removed, is that the teacher and the students can spend less time worrying about distractive behavior (Major, 2015; Weinbaum, 2016: 21), which might interrupt the flow of the lesson. Finally, the lack of spatial constraints that affect traditional classrooms can be advantageous to learners as online teaching provides everyone with "front-row seats" (Major, 2015: 129).

3.2.4 Implementing ICT

Implementing ICT in teaching can be challenging – even intimidating (Boettcher & Conrad, 2016: 62; Vesisenaho et al. 2016). ICT is the medium for all instruction and communication in online teaching (Major, 2015: 211), and both teachers and students need to know how to use them effectively if teaching and learning goals are to be achieved. If both parties possess the required skills to navigate and operate different ICT sufficiently, teaching and learning can take place quite intuitively. However, the teaching and learning experience can be negatively affected not only by the teacher and students' inadequate technological competencies, but also by external factors such as a poor internet connection or malfunctioning devices.

One of the first ICT related challenges a teacher preparing for online classes has to face is choosing technologies that serve the purpose of the course or lesson. Palloff & Pratt (2013: 61) emphasize that "technology is not the focus of the online course and remains merely a vehicle for course delivery", i.e., a teacher needs to make conscious choices about which ICT they wish to utilize based on the contents they are about to teach. Thus, ICT are the tool with which teachers can approach educational problems (Manning & Johnson, 2011, as cited in Palloff & Pratt, 2013: 64). This is also pointed out by Vesisenaho et al. (2016: 3), who draw on Zhao (2002) and highlight the fact that not all technologies are "pedagogically neutral" and that some are more applicable for certain pedagogical purposes than others. Therefore, the choice of ICTs in online teaching can either support or undermine the students' learning processes, depending on how suitable it is for a given pedagogical context.

The available ICT to school faculty allows online teaching to take place in a way that simulates a traditional classroom (Boettcher and Conrad, 2016: 62) and teachers need to be knowledgeable enough to carry out teaching, all the while overcoming any technical difficulties and creating a learning community online (Palloff & Pratt, 2013: 34). Manning and Johnson (2011, as cited in Palloff & Pratt, 2013: 76) also assert that novel technologies always involve new related vocabulary that teachers need to learn and teach to their students to break down digital language barriers that can inhibit the learning process. According to Lewis (2003, as cited in Ghavifekr, Kunjappan, Rama-samy et al., 2016), teachers require both support and adequate resources to overcome any such technology related issues.

Even if a teacher feels efficacious with ICT while teaching online, Miller (2014: 26) asserts that despite growing up in the digital age, not all students in their teens have the prerequisites to efficiently utilize learning related ICT. Some students might not have access to certain technologies, or they might own an old device that is not optimal for attending online teaching (Palloff & Pratt, 2013: 82) and teachers should maintain an awareness of how experienced their students are with specific technologies (Major, 2015: 112).

On the one hand, as discussed above in Sections 3.2.2. and 3.2.3, the technological limitations of online teaching pose challenges to communication and student engagement (Davis et al, 2020; Fish & Gill, 2009; McBrien et al., 2009; Todd, 2020), and these challenges can become manifold due to technological shortcomings or malfunctions. Since online teaching relies on the functionality of the equipment that is available to both the teacher and their students, any related issues are likely to cause problems that negatively affect the teaching and learning processes. Not being able to access studying materials due to a poor internet connection or not being able to participate in synchronous conversations due to a microphone malfunction can reduce motivation and lead to feelings of frustration, in addition to making it hard to engage with others. On the other hand, it is due to the accessibility and rapid development of ICT that online teaching can take place as intuitively as it does in the 21st century (Watson & Sutton, 2012).

4   THE PRESENT STUDY

In this chapter, the present study will be introduced. First, the research gap this study aims to fill, as well as the research questions are discussed. Second, a general overview of the practices of language teacher training at the University of Jyväskylä is presented to contextualize the study. Third, the participants of the study are discussed, followed by data collection, and conducting the interviews. Finally, the methods of analysis with which the qualitative interviews were analyzed are presented.

4.1   Aims and research questions

The main aim of this study is to map the experiences of eight English pre-service teachers before and during the online teaching period in the spring of 2020, and how their perceived self-efficacy beliefs were affected by having to transition from contact teaching to online teaching. Given the empirical nature of this study and the considerable lack of research on the topic thus far, this study aims to help understand how such an unforeseeable change in teaching practice conditions affects the way pre-service teachers at the University of Jyväskylä view themselves as teachers and how they perceive not only teaching online in general, but also how it affects their perceived self-efficacy beliefs as future teachers.

Therefore, this study aims to answer the following research questions:

1.   Which sources of self-efficacy are the most influential to pre-service teachers during the year of teacher training?

2.   What are the perceived differences between online teaching and contact teaching according to pre-service teachers?

3. What is the perceived effect of online teaching on pre-service teachers' self-efficacy beliefs?

4.2   Language teacher training at the University of Jyväskylä

The teacher education system in Finland aims to provide pre-service teachers with the skills and experience they require to work as teachers after graduation (Juuti et al. 2018: 422). Those who study to become language teachers at the University of Jyväskylä must complete both basic and subject level pedagogical studies in order to meet the national qualifications of teachers. These studies are designed to provide the pre-service teachers with sufficient understanding in both the theoretical and practical aspects of teaching. The contents of the courses follow the national curricula and are constantly updated to meet the ever-changing needs of the teaching field.

Basic pedagogical studies, which introduce the pre-service teachers to the first fundamental theoretical aspects of teaching, are usually completed within the first two years of studying, at the end of which the pre-service teachers complete their first instructed practice period, which lasts for six lessons of 75 minutes each. This short practice period is divided into two parts: cooperative and individual teaching. Cooperative teaching takes place during the first four lessons, which a pair of pre-service teachers design and carry out together. The practice period begins with a cooperative approach, as it helps pre-service teachers plan their first lessons more effectively and overcome possible performance anxieties, as they are not forced to step in front of the class immediately on their own. The last two lessons, on the other hand, are taught individually, with both the supervising teacher educator and peer still present, but not participating in the teaching itself. This practice period works as a way for the language pre-service teachers to gain their first hands-on experiences in teaching their own subject language, if they have not had the chance to gain any beforehand. The purpose of this instructed practice period is also to introduce the pre-service teachers to the practices of the training school, which is responsible for overseeing all hands-on teacher training at the University of Jyväskylä.

After having completed their basic studies, pre-service teachers can begin their subject level pedagogical studies, which at the university of Jyväskylä are designed to be completed either within a single academic year, as is the case with language teacher students, or over the course of several years in some other faculties. Regardless of how the teaching practice is organized, they always include courses and hands-on practice periods overlapping throughout the year. At the Department of Languages, the teaching practice during subject studies is both designed and completed individually.

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During the year, the pre-service teachers complete a total of six practice periods of 5 x 75-minute lessons, attend one-on-one meetings with their supervising teacher educators as well as observe peer taught lessons. The first five practice periods take place during the courses *OPEA515 Knowing and Expertise: Instructed Basic Practice* and *OPEA525 Knowing and Expertise: Instructed Advance Practice*. During these practice periods, pre-service teachers have the opportunity to teach their subject to students between the ages of seven and 18. The sixth practice period is known as the Instructed Adaptive Practice, which the pre-service teacher can complete in a teaching environment of their choice.

In addition to planning and teaching lessons, a part of the teacher training at the University of Jyväskylä during the year of subject level pedagogical studies is to observe a set number of lessons in one's own major subject as well as in other subjects. Observing one's peers functions as a source of inspiration and also as an opportunity to give objective feedback on others' performances. Most notably, pre-service teachers need to observe the class they are about to teach for at least one or two lessons prior to teaching that class themselves. This helps pre-service teachers stay on track of the topics that were covered during the classes preceding theirs, as well as get acquainted with the students and the dynamics within that group.

Finally, pre-service teachers meet regularly with their supervising teacher educators prior to and after each class. The meetings prior to the pre-service teacher's class are dedicated to going over lesson plans and resolving any issues therein. After each class, the supervising teacher educator goes through their notes with the pre-service teacher and gives them constructive feedback.

4.3 Participants

For this study, eight Finnish speaking pre-service teachers from the University of Jyväskylä were interviewed. All participants majored in English, and in order to be interviewed, each participant had to meet two criteria: they had to have completed their subject level pedagogical studies in the academic year of 2019-2020, and either finished or completed one of their practice periods through online teaching in March-April of 2020. These criteria ensured that all participants were knowledgeable on the topic (Guest et al. 2013; Rapley, 2004). All eight participants were between the ages of 23 and 25 at the time of being interviewed and they were personally asked to participate in the study. Prior to conducting the interviews, each participant was sent a consent form via e-mail, informing them about the nature of the study. Participation in the study was voluntary and each participant had the opportunity to opt out of the interview process at any given moment.

Although each participant had completed their pedagogical studies and had spent an approximately equivalent amount of time teaching during those studies, the amount of prior experience the participants had in language teaching, or teaching in general, was somewhat inconsistent. These varying backgrounds of the participants can provide different views on certain phenomena (Rapley, 20014: 17).

Despite the differences in the quantity and quality of prior experience, the sampling of this study in its entirety is very narrow and rather homogenous, which was not seen as an issue, given the qualitative nature of the study. This, however, does mean that the results of this study cannot be generalized, as opposed to the results of a more quantitative study (Dufva 2011: 134), and they only represent a fraction of the experiences and perceptions of the number of pre-service teachers who would also have been qualified to participate in the study.

For clarification's sake, it is worth mentioning that all eight participants were friends and acquaintances of the researcher responsible for the study and conducting the interviews. This close relationship between interviewer and interviewee presents a handful of challenges and opportunities for the interviewer, which affect the flow of the interview process. These will be discussed in the following section.

4.4   Data collection

The data for this study were collected by means of a semi-structured theme interview, which in qualitative studies means that there is a set number of themes the researcher wants to discuss with their interviewee, but the formulation of questions and the order in which the themes are covered can vary from interview to interview. Therefore, there is a certain open-endedness to each interview and the equivalence between additional questions may vary slightly from interview to interview (Tuomi & Sarajärvi, 2018). The main reason a semi-structured theme interview was chosen over other data collection methods is based on two main purposes listed by Stake (2010: 95), which are 1) "Obtaining unique information or interpretation held by the person being interviewed" and 2) "finding about a 'thing' that the researchers were unable to observe themselves". While this is true about other methods of data collection as well, a structured approach of any kind is a way to ensure the purposes of the interview are achieved effectively (Keats, 1999: 47). Moreover, such interviews are applicable to a myriad of topics, and they can help understand different phenomena, in addition to just providing information about them (Guest, 2013: 113).

When conducting the interviews, a quiet, one-on-one setting was chosen to allow for ease of interaction and the removal of outside disturbances (Rapley, 2014: 18). At the beginning of each interview, the participants were introduced to the chronological

order of the main themes and some of the sub-themes that would be covered in detail, after which the recording was started. To form a comprehensive picture of each participant's self-efficacy as a teacher and how it was challenged by having to teach online, the interview was structured to create a timeline of each participant's personal journey as a teacher and how their attitudes, beliefs and aspirations had evolved after gaining an increasing amount of hands-on experience. There was a conscious choice made about not allowing the participants familiarize themselves with the topics beforehand. Although doing the opposite would have given them a chance to reflect on each theme more thoroughly, thus resulting in more detailed and thought-out descriptions of certain experiences, there is a chance the responses would have been too heavily pre-constructed and possibly altered to have catered more to the study. In short, this choice ensured that a level of spontaneity and authenticity was maintained in each interview, and that the responses were not planned. The themes covered in each interview drew from Bandura's sources of self-efficacy beliefs (1995), which were introduced in Section 2.1, with the addition of themes related to the participants experiences and perceptions of online teaching and associated ICT. The main themes and sub-themes of the interviews are listed in Appendix 1.

The interviews were conducted in December of 2020, seven to eight months after the participants had taught online, which presented some advantages and disadvantages for the study. On the one hand, if the interviews had been conducted directly after the participants had finished their online teaching periods, their answers might have been more accurate, nuanced and more detailed, as their experiences would have still been fresh. The lack of fresh memories turned out to be an issue with certain specific themes and questions, as the participants struggled to memorize experiences and feelings related those themes.

On the other hand, interviewing the participants directly after such a tumultuous period in their lives might have resulted in responses that were more emotionally loaded, potentially providing less rational responses. Therefore, conducting the interviews after the participants had had months to internalize and reflect on their experiences is likely to have provided more objective and rational, rather than emotional responses.

Additionally, as mentioned in Section 4.3., each participant was a friend of the interviewer, which was perceived to impact the interview situation in a positive way. This relationship between the interviewer and the interviewee creates a phenomenon called 'rapport', which Keats (1999: 23-24) defines as follows:

> Rapport is the term given to that comfortable, cooperative relationship between two
> people in which there are maintained both feelings of satisfaction and an empathetic
> understanding of each other's position

This is to say, when the perceived difference in status level between the interviewer and the interviewee is minimal, the interview situation is less likely to induce feelings of anxiety, judgement, or a need for excessive politeness, which is prevalent in some cultures (Keats, 1999: 23-24). This in turn works to ensure the interviewee feels more comfortable with sharing their experiences instead of choosing to leave some information undisclosed due to one or more of the aforementioned reasons.

After conducting the interviews, the data folders for each interview were pseudonymized to ensure anonymity, but also to allow further data to be linked to the already conducted interviews if the need arose. The collected data was analyzed as objectively as possible, and any possible personal knowledge or biases about the participants were minimized in the research process.

4.5   Method of analysis

The data of the present study were gathered through semi-structured theme interviews, and it was analyzed by means of qualitative content analysis. Content analysis was chosen as the main method of analysis because it can, among a multitude of other applications, be used to analyze different types of written, observed or heard data (Tuomi & Sarajärvi, 2018: 103).

Tuomi and Sarajärvi (2018) introduce three different approaches to content analysis: 1) *data-based analysis* 2) *theory-driven analysis* and 3) *theory-based analysis*. Both *theory-driven* and *theory-based analyses* rely to some extent on pre-existing theories on the research topic, i.e., the process of analysis is influenced by different theoretical frameworks or models. In *theory-driven content analysis* these theoretical frameworks can work as a guideline for analysis but reliance on them is not mandatory (Tuomi & Sarajärvi, 2018: 109). *Data-based analysis*, on the other hand, does not rely on prior knowledge or observations, but rather, the goal of data-based analysis is to exclude these factors and so that their influence on the process of analysis is minimal (Tuomi & Sarajärvi, 2018: 108).

In this study, data-based content analysis was applied, as the goal of the study is to provide a theoretical understanding of the interview data. Miles and Huberman (1994, cited in Tuomi & Sarajärvi, 2018: 114) present qualitative data-based analysis as a three-stage process, which includes the reduction, clustering, and abstraction of data. In the *reduction* stage, the researcher eliminates data that is not relevant to the study, which can be done by extracting essential parts of gathered data by color coding them, for example (Tuomi & Sarajärvi, 2018: 123). This remaining data is then *clustered*, which means it is categorized into fitting themes and subthemes that are directly linked to research goals (Tuomi & Sarajärvi, 2018: 124-125). After the reduced data has

been clustered, it is then *abstracted,* which involves moving from the emergent empirical data towards a more conceptual understanding of the phenomena being studied (Tuomi & Sarajärvi, 2018: 125-127)

In this study, following Miles and Huberman's (1994) model, the transcribed interview data was first reduced into a separate text document containing extracts from the interviews that were considered pertinent to the research questions. Then, this reduced data was clustered in the same document by placing each participant's responses under a corresponding heading, so that navigating through all responses regarding a specific theme was manageable. The sub-themes and main themes that emerged after the reduction and clustering stages of the analysis process can be seen in Table 1 in Chapter 5.

As the analysis process progressed, the interview data were reduced and re-clustered further to more accurately meet the goals of the study and this re-clustering process resulted in nine sub-themes, which then were linked to three main themes. These main themes, which are also presented in Table 1, are directly linked to the three research questions of the study. Consequently, the analyzed data is presented in the order of the nine sub-themes and their relation to the main themes is abstracted in the discussion and conclusion chapter of this study.

5   RESULTS

In this chapter the results of the interview data will be presented. As mentioned above, the data were reduced and clustered into 9 subthemes, which were then categorized under three main themes (see Table 1 below). These themes provide the fundamental structure for this chapter, and the findings in each section are discussed in their relation to their corresponding main theme. The first section (5.1) will present the sources of self-efficacy the participants expressed had influenced the construction of their self-efficacy beliefs during the year of teaching practice. The second section (5.2) is dedicated to examining the participants' perceptions of how online teaching differs from contact teaching. The third and final section (5.3) concludes with the participants' perceptions on how having to teach online affected their self-efficacy beliefs as teachers.

Table 1. Subthemes and main themes of the data

Main theme	Sub-themes
Sources of self-efficacy during teacher training	1. Communication and interaction with supervising teachers 2. Observing classes taught by peers 3. Successful and failed mastery experiences
Differences between online teaching and contact teaching	4. Student engagement and interaction 5. Lesson planning and time management 6. The changed role of supervising teachers 7. Implementing ICT in online teaching
Effects of online teaching on self-efficacy	8. The role of established self-efficacy beliefs 9. Online teaching as a new skill

5.1 Sources of self-efficacy during the year of teaching practice

In this section, the results related to influential sources of self-efficacy during the year of teaching practice are presented. The participants shared stories and expressed feelings related to the aspects of the year of teaching practice that had influenced their self-efficacy beliefs, and they will be discussed in their respective sub-sections. The first sub-section examines the ways in which communication and interaction with their supervising was perceived to influence self-efficacy. In the second sub-section, the perceived importance of vicarious experiences is discussed. The third and final sub-section focuses on the ways feelings of success and failure in front of the class affected the participants' self-efficacy beliefs.

5.1.1 Communication and interaction with supervising teachers

At the training school, supervising teachers are constantly present during pre-service teachers' classes and they offer feedback and counseling for pre-service teachers before and after each class. When the participants described their relationships with their supervising teachers, many provided detailed stories about the types of communication and interaction and how they either positively or sometimes negatively affected their self-efficacy beliefs. Extract 1 illustrates how one of the participants had felt insecure about teaching and how their supervisor had helped them overcome those feelings, resulting in a successful class. Extract 2, on the other hand, shows how a supportive supervising teacher had helped the participant manage their expectations for the first class, instead of striving for perfection:

> (1) Charlie: I was really stressed and nervous because I tend to be like that, but my supervising teacher educator was lovely, and they gave me a lot of encouraging and empowering feedback from the very beginning, and I feel like the fact that my first practice period was a success boosted my confidence a lot.

> (2) Tyler: It was nice to have them to be there to support me and to be like: "Don't stress about the first class. It's your first class and it doesn't have to be a perfect performance or anything like that". So, it felt really nice to realize that this is indeed my first class and I'm still practicing. It gave me a really secure kind of feeling".

For these two participants, the beginning of the year of teaching practice had been a cause of stress, and these feelings were better managed with the help of their supervising teachers. For Charlie, their supervisor had worked as a source of encouragement and much needed validation during times of self-doubt. This well-functioning relationship with their supervising teacher and the subsequent success during a practice period was mentioned to increase their confidence for future classes substantially. This experience resonates with findings by Juuti et al. (2018), which indicated

that by providing active support to pre-service teachers, supervisors can help them avoid experiences that could possibly undermine their sense of self-efficacy. As mentioned in Tyler's extract, their supervisor had helped them lower their expectations for the first self-taught class, which had helped them remember that they were still very inexperienced and in the process of learning to be a teacher, and that they should not try to achieve perfection during their first class. According to the third source of self-efficacy in Bandura's model (1997), social persuasion should indeed not exceed unrealistic expectations, as falsely convincing an individual of their potential can be more detrimental to self-efficacy if it is followed by a failed experience.

Retrospective supervisor feedback was also mentioned by some of the participants to affect the way they evaluated their own performance and how well they felt like they had succeeded. The following extract illustrates such a perspective:

> (3) Robbie: They gave me honest feedback but not in an exceeding way. It was always encouraging, and I always felt good about myself after our feedback meetings even if there had been some things that hadn't gone too well.

In Robbie's case, the importance of encouraging feedback is once again emphasized, but in her case, positive supervisor feedback had affected the way they perceived their own potentially unsatisfactory performance. Robbie states that by discussing the contents of the class with their supervisor in hindsight had helped them see it more as a success and to associate pleasant feelings with it. Self-efficacy beliefs of pre-service teachers have been shown to fluctuate more than those of experienced teachers (Valcke et al., 2010) and as Hoy (2002) found out, this change in self-efficacy can be the result of, for example, how pre-service teachers perceive their own performance and the related feelings of success. Thus, believing that one has succeeded can have a positive impact on self-efficacy.

In addition to maintaining a supportive atmosphere and providing words of encouragement, going through lesson plans prior to each class was mentioned by some of the participants as an important part of sufficient preparation. The following extract illustrates one participant's views on how feedback on the lesson plan had helped them gain confidence:

> (4) Jordan: In my opinion it gives you a kind of confidence that it's nice to hear whether the plan looks good and that there is still time to make changes to it if you want, so I felt like meeting before each class was useful.

In this extract it is evident that Jordan considered feedback on lesson plans important to their teaching. Given that these meetings always take place at least one day before the lesson is meant to be taught, Jordan stated that they always had time to improve pre-existing ideas based on the feedback they were given. Positive feedback on the lesson plan was also mentioned to increase their confidence in general. This

"feed-forward" type of feedback is an example of social persuasion that has a chance to increase self-efficacy, and Jordan's comments about increased confidence and making improvements to their lesson plan align with statements by Litt (1988) and Schunk (1989, cited in Bandura 1995), who argue that social persuasion can help an individual increase time and effort they put into accomplishing tasks, which is directly linked to higher chances of success.

In contrast to the positive experiences many participants seemed to have with their supervising teachers, some reported less than ideal relationships, which had reportedly undermined their confidence as teachers. Extract 5 is by a participant who, in addition to their prior positive experiences, mentioned feeling uncomfortable under the supervision of a particular supervising teacher, and that not seeing eye to eye on certain matters had manifested in feelings of failure and insecurity. Additionally, Extract 6 highlights an experience where the participant had not agreed with the feedback they had been given:

> (5) Charlie: I felt like I partially failed because I didn't see eye to eye with my supervisor. Not that it was their fault, but we just…I didn't feel comfortable around them and I felt like they didn't like me or anything that I did, so that manifested in my behavior and I was really insecure and I didn't know If what I did was good because I felt like they didn't accept me.

> (6) Robbie: There was one supervisor who I didn't enjoy working with and I didn't agree with all the feedback they gave me, but overall we did get along and I was able to pick up some useful things along the way.

Charlie's extract above shows that supervising teachers play a crucial role in building pre-service teachers' confidence and self-efficacy. For Charlie, the negative atmosphere and the lack of mutual understanding on certain aspects of teaching had made them feel uncomfortable and unaccepted as a person. In Charlie's view, these negative associations working under the supervision of this supervisor had consequently made Charlie feel like they had failed and uncertain whether their performance had actually been good or bad. As presented by Bandura (1997) social persuasion that affects self-efficacy is not always necessarily verbal, but sometimes symbolic in nature. Symbolic social persuasion can be, for example, conveying a safe and supporting working environment under a supervisor during training. Such a safe climate can reassure a pre-service teacher, for example, that it is acceptable to falter and learn in the process. However, in Charlie's case, their time under the supervision seemed to lack a secure and safe working environment, thus resulting in feelings of inadequacy and failure.

Even though Extract 6 shows that Robbie felt like they did get along with their supervisor in general, they expressed occasionally disagreeing with the feedback they were given. Evaluative feedback as a form of social persuasion can function as a source

of self-efficacy as pointed out by Urdan (2016), but if the individual providing the feedback is perceived as incompetent, or the feedback feels unjustified, it is less likely to undermine self-efficacy. This extract thus exemplifies statements by Howardson and Behrend (2015), who argue that studies on the role of social persuasion as an efficient source of self-efficacy beliefs remain inconclusive.

When further discussing the effects the supervising teachers had on the participants as pre-service teachers, it was brought up multiple times that some supervisors came across as too eager to impose their own ideas on the participants classes and that the participants did not always have the chance to carry out their own ideas. The following extract demonstrates this:

> (7) Dakota: I sort of decided not to do any of the things that I thought were nice and it was kind of…I'm sure the teacher had a point, but I still would've preferred to try some of them out and see for myself how they would or wouldn't have worked out, and how I would've reacted if they didn't. It was nice that they warned me (about Dakota's ideas not working for the class), but I still would've liked if they had let me try anyway.

Dakota's experience with an over-imposing supervisor implies a need to be able to carry out one's own ideas in the classroom and being able to observe the related consequences. According to Dakota, even if their ideas had not had the desired results, seeing their students' reaction to them first-hand would have been better in their opinion than doing simply as their supervisor told them to. Dakota does acknowledge that the teacher most likely had a point, and their concerns were most likely grounded in prior experience with the group of students in question, but Dakota still would have preferred to teach in their own way. This mentality can be seen as a sign of high pre-existing levels of self-efficacy, and that Dakota was ready to make a conscious choice of potentially failing and taking that failure as an opportunity to learn.

This clash between the supervising teacher and Dakota, and what they thought would or would not have worked, can be related to statements by Uibu et al. (2017) which emphasize the need for pre-service teachers to have the chance to gain first-hand experiences with new approaches in the field of teaching. Uibu et al (ibid.) argue that the experiences of pre-service teachers should be grounded in personal experiences, and according to Day (1999), to increase their self-efficacy, individuals need to be provided with opportunities for personal and professional growth, which in this instance were not provided to the extent Dakota would have preferred.

Overall, communication and interaction with supervising teachers during the year of teaching practice seemed to be more influential to some participants and less influential to others. On the one hand, for those who implied that a well-functioning relationship had been helpful in the construction of their self-efficacy, the importance of empowering feedback, help with managing expectations and a supportive and safe working climate were among the highlighted aspects. On the other hand, for some

participants, communication and interaction with their supervisors had been less than ideal. Not feeling comfortable or accepted around the supervisor, receiving unjustified feedback or being heavily steered to teach according to the supervisor's beliefs were reported as sources of insecurity, feelings of inadequacy and frustration.

5.1.2 Observing classes taught by peers

During the year of teaching practice, the participants had observed dozens of classes taught by others, and the related discussions revealed that many of the participants perceived such vicarious experiences, i.e., observing others in relatable situations, to have had a positive effect on their self-efficacy. The vicarious experiences the participants repeatedly brought up as meaningful to their own teaching were those in which they were able to observe their peers. Extract 8 below is an example provided by one of the participants, in which they explain how observing someone else teach the same group of students they were going to teach helped them analyze the teacher-student relationships within that group. Then, Extract 9 shows how peer-taught lessons were seen as a source of ideas for adopting successful activities for one's own classes:

> (8) Alex: Just by observing you form an image of your own class. I feel like those [peer-taught] classes are immensely important and they gave me a lot more compared to observing random language classes that were in no way related to my own teaching. Of course, you get a lot of help and ideas, but what I felt like observing the class that I was going to teach gave me more than anything was the relationship between the teacher and the students, which I began to construct while observing those classes.

> (9) Robbie: Whenever I saw a well-working activity or a task, I wrote down what it was about in my list and if I ever lacked ideas for my own classes, I could go back to that list and be like "Oh yeah, this person did this in this context and it worked really well".

In order to work as an effective source for self-efficacy, the observed social models have to be highly relatable (Bandura, 1997), and Alex's example about observing a peer taught class seems to demonstrate this. When talking about observing classes taught by others, those that were closely linked to Alex's own teaching (in the same subject, with the same students, observing a peer) were deemed more meaningful than observing classes of a different language, for example. The chance to observe the group of students they were going to teach afterwards had given them an understanding of how the students engage with their teacher. Inexperienced teachers have been found to be easily overwhelmed when confronted with the complexities of actual teaching, such as class management (Wideen et al., 1998, cited in Valcke et al., 2010: 625), and Alex's example of observing classes implies a beneficial relationship between a highly relatable vicarious experience and the way one approaches a specific group of students.

In Extract 9, Robbie emphasizes acquiring and writing down a list of tasks for specific situations after having witnessed that they had been successful. This list was said to have been helpful if they had felt like they lacked ideas. Vicarious experiences can increase self-efficacy, since Bandura's model for sources of self-efficacy (1995) suggests that they can offer information about how to carry out certain tasks successfully. Robbie's example can thus imply that they were able to observe a certain type of task being carried out successfully and learning how to apply a similar approach themselves in the future.

In addition to acquiring ideas for successfully carrying out tasks or starting to learn how to manage a specific group of students, peer taught lessons had also provided a source of encouragement, which had helped reduce feelings of anxiety before teaching. Extract 10 below is an account by one of the participants on how they had observed a visibly nervous – even frightened peer – succeed, and how this experience had increased their sense of self-efficacy:

> (10) Jamie: I sort of knew what to expect and I knew that okay, this person is clearly nervous and frightened – you could see that, but they still did really well it gave me a really calming feeling, like "they were nervous, but they managed, therefore I will manage as well".

Jamie's reflection on the importance of this experience suggests that vicarious experiences can also work to boost confidence in one's own capabilities. By mentioning that the observed peer had been visibly nervous and frightened may be an indication that Jamie had expected them to fail, given that according to Bandura (1997), negative emotional states, such as stress and anxiety, can undermine self-efficacy and decrease chances of success. Despite these possible expectations, observing their peer had given Jamie a relative understanding of their own chances of succeeding, suggesting a type of "if they can do it, I can do it"-mentality. Similar effects on inexperienced teachers' self-efficacy were found by Gael et al. (2021: 13), whose study suggested that vicarious experiences are most likely to increase self-efficacy when an individual uses them to draw comparisons between the observed model and their own relative chances of succeeding.

Although many of the interviewed participants agreed that vicarious experiences in the form of observed classes helped them improve elements of their own teaching, the significance of these experiences on their self-efficacy was perceived to diminish as the year of teaching practice progressed. The following evaluation of the importance of observing classes by Alex demonstrates such a perception:

> (11) Alex: It was important at first. During the fall semester it was important to observe your peers, but I feel like it [observing classes] didn't have much to give after the first few months, you know? When you're starting your fourth or fifth practice period (…) at that point it feels like I've seen all that there is to see.

Alex's perceptions of the value of observing classes suggests that for pre-service teachers, vicarious experiences are an important part of the year of teaching practice – especially at the start. In Alex's view, however, this importance is finite. After gaining first-hand experience through several practice periods, observing classes was mentioned to feel insignificant in relation to their own teaching. This aligns with findings by Gael et al. (2021), who found out that vicarious experiences were a meaningful source of self-efficacy when the observed tasks were novel, which often is the case at the early stages of teaching. Alex's reflection thus suggests an increase in self-efficacy beliefs as a result of gained mastery experiences during practice periods, which will be discussed in Section 5.1.3.

In conclusion, the participants of this study seemed to be rather unanimous about the importance of vicarious experiences as a source of self-efficacy for pre-service teachers. Observing classes taught by their peers had provided the participants with concrete ideas, such as successful proven activities and exercises that they could apply in their own teaching. Witnessing visibly nervous peers succeed had also been a source of increased confidence in one's own skills and capabilities as a teacher for one of them. Although vicarious experiences were praised for their role in the construction of self-efficacy beliefs, their perceived significance was also reported to decline with gained experience.

5.1.3 Successful and failed mastery experiences

When discussing their own in-class performances, the participants described instances where they had experienced feelings of success and/or failure and how these experiences had influenced their future performance or the way they saw themselves as teachers. Successful and failed mastery experiences in Bandura's model (1995) can be a potent source for self-efficacy, depending on how one interprets such experiences. In the following two extracts, one of the participants first describes a challenging relationship with one of their students and how it was difficult for them to manage that student's behavior appropriately without coming across as mean (12). Then, the second extract (13) shows how the same participant had experienced an immense feeling of success with that same student after the initial struggles:

> (12) Tyler: I had one student who had trouble concentrating, so it was really difficult for me, especially at the beginning, to be authoritative and knowing how to tell the students to be quiet in the right way, when you would just prefer to be nice to them. So that was a really challenging thing for me.

Preliminary questions in the interview revealed that Tyler was the only participant in the study who entered their year of teaching practice without prior teaching experience at the training school, i.e., they had not completed the Basic Instructed

Practice during their basic studies and they had mostly theoretical knowledge about what it was like to teach their subject. As presented above in Section 2.2, Sancar Tokmak and Karakus (2011) argued that pre-service teachers tend to struggle with the application of their theoretical knowledge in actual teaching and given that Tyler had not had prior experience in managing such challenging students, their desire to "just be nice to the students" can be seen as a sign of naïveté and optimism. This optimism, as argued by Hoy (2000), can consequently be tarnished when inexperienced pre-service teachers are faced with actual teaching tasks and class management.

However, the follow up to Tyler's account on the time they spent teaching the same student shows that despite struggling at first with being authoritative and connecting with them, achieving a level of understanding with the same student and helping them form complete sentences during an exam had felt like a major success:

> (13) Tyler: But that success on the other hand…I remember that it was the same student and we had an exam, and they just could not understand what they were supposed to do in one of the tasks and they were very unmotivated to do it because it was really difficult for them and they were about to give up like "I won't do it, I don't want to write anything here", but when I told them what the task was about and helped them out a little (…) So when they finally filled the task with answers, it felt really good since they were actual sentences and it felt like a major success that I got them to learn and do things.

As Tyler describes in the extract above, the student had been reluctant to do any of the required exercises, but with Tyler's guidance and support, they had eventually come around and managed to write down complete sentences in the exam. Getting through to the student and seeing how providing support had helped them "learn and do things", had resulted in Tyler's major feeling of success. This is an example of a mastery experience (Bandura, 1997) which has been studied to be a potent source for self-efficacy in teacher development (Gael et al., 2021, Hoy, 2000, Spector, 1990, cited in Coladarci, 1992). Moreover, mastery experiences with tasks that an individual perceives as challenging, such as in Tyler's case, usually increase self-efficacy more than tasks that result in quick success (Bandura, 1997), since low-effort tasks are less likely to result in increased motivation or increase self-efficacy (Kiili et al. 2016).

Excluding Tyler's detailed account of her feelings of success, many participants seemed to recall experiences with negative associations and their concrete ramifications in more detail, suggesting that failed experiences may leave a more lasting imprint on how the participants saw themselves as teachers. For example, two participants shared a similar experience about teaching shortened sentences in upper secondary school, which was perceived as a difficult area of grammar to teach. Consequently, they both expressed that their attempts at teaching it to their students had felt unsuccessful. The first extract by one of these two participants (14) illustrates the reasons why they had felt like they had failed, and the second extract (15) shows how

this participant had reacted to the failure before the following class with the same group:

> (14) Morgan: I taught shortened sentences which is one of the most difficult areas of grammar to teach because you need to take so many things into account. First of all, I was really tired at that point. It was a few weeks before Christmas and I felt buried under all my work and I was super stressed and I couldn't sleep. Then I taught a class where I felt like I knew quite a bit about shortened sentences, but not enough. I had errors in my teaching slides and I couldn't properly answer when one of the students asked me about those shortened sentences. After the class when the students had left, I burst out crying and told my supervisor the class had been shit.

Morgan's reflection on this particular class reveals multiple elements that had contributed to the feeling of failure. First, it shows that external factors, such as stress caused by other school work and lack of sleep, had played a part in their emotional state, which most likely caused them to burst out crying after the class. Second, their account of the events of the class itself show that their teaching slides had contained incorrect information, and that they were not confident enough with the subject matter, which had consequently been revealed in their inability answer a student's question about the topic. Although Morgan had felt like they had failed, their experience seems to resonate with arguments by Tschannen-Moran and McMaster (2009), who point out that failed mastery experiences do not always negatively affect one's self-efficacy beliefs. If the reasons behind the failure can be linked to external factors, such as stress about other work, lack of sleep and inadequate preparation in Morgan's case, the failure is less likely to be detrimental to self-efficacy.

In fact, this can be seen in the follow-up and the conclusion to Morgan's experience teaching shortened sentences. The first extract (15) below shows how their failure with teaching shortened sentences had fueled their inner drive to do better the next time they stepped in front of the class and the second one (16) demonstrates how they had already felt rather confident in their skills as a teacher overall, but the failure had motivated them to avoid similar uncomfortable situations in the future:

> (15) Morgan: It [the failed class] was my fourth class in a five-class practice period. There was a weekend in between and the next class was on Tuesday, and I really picked myself up like "I'll fucking study these shortened sentences so well that nothing about them and how they work will be unclear to me".

> (16) Morgan: I believe that the successful experiences had gradually led me to where I was and to that confidence in my own skills, but that experience of failure, the shit class that I had, had pretty long-lasting effects, as I wanted to avoid the same feeling and a similar situation in the future.

Bandura (1997) points out that mastery experiences' effects on self-efficacy rely heavily on how an individual perceives those experiences personally, rather than how

they're perceived from an objective viewpoint. Morgan's reflections are consistent with findings by Gale et al. (2021) and Morris and Usher (2011), which showed that failed mastery experiences do not necessarily lead to a decrease in self-efficacy if the experience is interpreted as a learning opportunity. In Morgan's account of their feelings of failure and the subsequent redemption, they imply that instead of making them feel less confident, it had done the opposite. They mention having dedicated time to mastering the topic so that nothing had remained unclear to them or their students. By increasing the amount of effort an individual puts into the completion of a task, the higher their chances of succeeding and the greater the increase in self-efficacy (Bandura, 1997). Morgan also made references to their established sense of confidence as a teacher after having many successful mastery experiences, which is consistent with findings by Shunk and Usher (2011, cited in Kiili et al. 2016: 4), which suggest that an occasional failure after numerous successful experiences is not likely to undermine self-efficacy.

Altogether, it seemed that both successful and failed mastery experiences in the participants' perceptions had the potential to increase their self-efficacy beliefs, rather than decrease them. Successful mastery experiences were expressed to increase confidence for future classes, and they were most frequently recalled on instances where the participants had managed to exceed their own expectations in the classroom and student management, as well as succeeding in increasing the students' motivation and engagement. Significant failed mastery experiences, on the other hand, were more subject specific and more associated with the difficulty in teaching a particular area the target language and the participants' inadequate preparation to do so. These experiences of failure had worked as an incentive to improve one's knowledge on the topic and to avoid a similar situation and the associated negative emotions in the future. These failures had also had long-lasting effects on some of the participants, as the time and effort they had put into mastering the topic after the failure had increased their self-efficacy.

5.2   Differences between online teaching and contact teaching

On the topic of online teaching, and how different the participants perceived it compared to contact teaching, the discussions covered a range of themes, and this section is dedicated to examining four of them in their respective sub-sections. To understand the connection between the participants' experiences and their perceptions of online teaching, references to previous studies on pre-service teachers' readiness to utilize ICT in teaching as well as their related self-efficacy will be provided. The first of the four sub-sections will cover the ways in which communication and engagement with

the students changed with the transition to a web-based learning and teaching environment. Second, the changed role of supervising teachers in relation to preparing the participants for online teaching is presented. The third sub-section provides an overview of how online classes required the participants to make changes in the way they approached their lesson planning processes and how they had to manage time differently. Lastly, the fourth sub-section presents findings pertinent to the implementation of ICT in online teaching and how new approaches had to be adopted to meet the teaching and learning goals of online language classes.

5.2.1 Student engagement and interaction

The participants perceptions of their time teaching online revealed that the majority of them had struggled with achieving and/or maintaining a meaningful level of interaction and communication with their students. Although all eight participants taught synchronous online classes, i.e., the teaching included either a video connection or a real-time chat option (Palloff & Pratt, 2013), many had experienced clear lack of connection with their students. The following extract showcases how, for one participant, not being able to see the students and interpret non-verbal cues such as body language and facial expressions had made it difficult to determine how well the students were engaged during the class.

> (17) Robbie: The most challenging aspect was that I couldn't see the student, because in contact teaching you can usually interpret body language and facial expressions as an indicator of whether the students are paying attention or not. In online teaching, however, you have no clue as to whether they are listening to what you're saying, or if someone doesn't understand anything or if something is too easy.

As can be seen in the extract above, Robbie had perceived the lack of the physical co-presence of the students as a challenge. Because the students were not required to always keep their cameras on during online classes, Robbie had not been able to interpret non-verbal cues, which are usually present in contact teaching, as indicators of student engagement. This had made it difficult for them as a teacher to evaluate if the contents of the lesson were too difficult or too easy for the students. A study by Durmont and Raggo (2018) found out that within their sample of 20 teachers who had taught online, 30% of them considered the reduced ability to evaluate student engagement as the largest obstacle in online teaching. These findings, as well as Robbie's views on student engagement during online classes are consistent with Major (2015) and Davis et al. (2020), who also assert that the lack of physical presence and hiding behind disabled cameras makes it difficult for the teacher to judge how the student are managing, or how their own teaching is being perceived. Additionally, Robbie had not been able to tell whether their students were paying attention to the teaching in

the first place. Since students work in isolation during online classes, they must be able to resist external distractions (Major, 2015), and eliminating such distractions in online teaching can be impossible for the teacher.

Student engagement was also perceived to be different in the extent to which students had felt comfortable about actively participating during classes. Turning on one's microphone during an online class can be a source of anxiety for students, as all eyes and ears turn to them when they activate their microphone. The following extract is by one of the participants who experienced that asking questions and receiving quick answers was easier in contact teaching, but during online teaching students were reluctant to turn on their microphones:

> (18) Tyler: Normally I could ask something in front of the class and get an answer pretty easily, but now it felt like many of the students were scared of turning on their microphones in front of the whole class while all ears were on them. So, it was really different to try and find a way to get them to participate without putting too much pressure on them.

Previous studies have indicated that attending online classes as a completely new experience can feel intimidating to students (Clair, 2015) and it can be a source of anxiety for both the students and the teacher (Palloff & Pratt, 2013; Rovai, 2000). Tyler's experiences seem to reaffirm these pre-existing beliefs that many students feel uncomfortable voicing their opinions or participating in general during online classes, as all the surrounding stimuli of a traditional classroom are removed, and all focus is given to the person who has activated their microphone. Tyler also reported having to think of ways to get their students to participate without them feeling forced to do so, which was also seen as a difference between online and contact teaching.

On the topic of online classes, one of the participants turned the conversation towards how the reduced level of interaction with their students had negatively affected the way the participant was able to convey their teacher persona during classes. The way this participant saw themselves as a teacher in front of a class had reportedly changed completely when teaching online. In the following extract, Jamie explains how the reduced level of interaction and its effects on their teacher persona had undermined their confidence:

> (19) Jamie: The lack of interaction. That's the biggest thing (…) They [the supervising teacher] told me that my biggest strength is how I present myself in front of a class, and that aspect was gone in online teaching, and with it, a big part of my teacher identity and my confidence, because I 'm just there behind the screen giving instructions and not able to let my personality and way of teaching show as much as I would like to.

Major (2015) has raised questions about teacher personas in online teaching and whether a switch from a physical classroom to a virtual one requires, or results, in a change in the ways teachers are able to express themselves. Jamie's related perception

seems to suggest that for some teachers, online classes are not comparable to contact teaching and physically presenting oneself in front of a class. The reflection in the extract above (19) implies that not being able to convey a similar persona as effortlessly when teaching online had undermined Jamie's confidence and consequently taken away a part of their teacher identity. On the topic of teachers' personas in online teaching, Major (2015) states that teachers indeed need to make more conscious choices about which aspects of their personas they wish to convey when teaching online. In contact teaching many of these aspects are conveyed rather subconsciously with body language and other non-verbal expressions (Major, 2015), but trying to replicate similar aspects in online teaching can be difficult, as can be seen in Jamie's account.

In summary, establishing and maintaining a level of meaningful interaction with their students was seen as one of the fundamental differences between online teaching and contact teaching. First, many participants reported not being able to tell whether the students were engaged during the class, given that they could hide behind disabled cameras, thus making it impossible to interpret non-verbal cues as signs of comprehension. Second, students were considered less likely actively participate during online classes than they would in contact teaching. This was seen as the result of the increased pressure student might feel about turning on their microphones and voicing their opinions as the attention of the whole class turned to them. Lastly, the reduced levels of interaction and ways to express oneself in the classroom had made some of the participants rethink the way they are able to express themselves and convey their teacher persona in an online class.

5.2.2 Lesson planning and time management

In addition to changes in communication and student engagement, the process of planning lessons was also reported to change when transitioning to online teaching. First, consistent with several previous studies (Stone & Perumean-Chaney, 2011; Everson, 2009; Esani, 2010) planning online lessons was perceived to be more time consuming that doing so for contact classes. According to some of the participants, planning online lessons was twice as time consuming because the elements of spontaneity that accompany contact teaching, such as improvising on the spot, were gone and every step of the lesson had to be planned in advance. During the planning process some participants also reported having to consider the technologies available to themselves as teachers, as well their students. The following extracts demonstrate these perspectives:

> (20) Jamie: For me personally, planning lessons took twice as much time as it would for contact classes, because improvisation is such a big part of my way of teaching and I'm usually like "We'll see how we go through this homework once we get to class", but here [in online teaching] I had to think about it really carefully.

(21) Tyler: I tried to constantly think about their [the students'] situation because I knew how many things they had to do at that moment and at the same time I tried to think about all these different technologies I could use and ones that they could use as well.

Designing online lessons that effectively promote learning can be challenging, as teachers need to take several new variables into consideration. These include choosing which platforms to use and figuring out how each task is carried out online, for example (Stone & Perumean-Chaney, 2011). In Jamie's account of their planning process for online classes, it is revealed that teachers who often feel empowered by the spontaneity of contact teaching, need to become more conscious of their teaching, therefore deciding in advance how to approach different elements of an online class. Moreover, Tyler's perspective on planning online lessons shows that one of the aspects teachers need to consider more carefully, is the ICT they want to use, and which ICT are available to their students who are studying from their homes. As argued by Vesisenaho et al. (2016), who draw on Zhao (2012), some technologies are pedagogically more applicable in certain contexts than others, and Manning & Johnson (2011, cited in Palloff & Pratt, 2013: 64) see the choice of ICT as the teacher's way of solving teaching related issues. Teachers should also be aware of their students' technological competences and how they are able to manage ICT on their own (Major, 2015). Consequently, the teachers' choices about which ICT are used in online teaching can either increase or undermine student learning.

Contrary to Jamie and Tyler's experiences, planning online classes had been less meticulous for some participants. The novelty of online teaching, and the lack of related competence had lowered expectations for personal performance, and online classes were planned with more attention on the bigger picture, rather than on the minute details. The following two extracts illustrate these experiences:

(22) Morgan: At least I personally felt like I lowered my expectations and basically expected nothing of myself. This [online teaching during a pandemic] is a new situation and there is no way I can be very good at this and that affected the planning process so that I didn't stress out about it too much.

(23) Jamie: What I noticed as the biggest difference, was that there were less of these milestones (*finnish: etappeja*) in my plans, and there was more focus on the bigger wholes, of which there were a lot less than in contact teaching.

In Morgan's experience, planning online lessons was perceived as a new skill, comparable to others that require related competence, and Morgan's lack thereof had caused them to approach the planning process with very low expectations, most likely as a pre-emptive strategy to avoid feelings of disappointment if their plan did not work. These low to nonexistent expectations had reduced the stress that was implied to accompany the planning process for contact lessons. Similarly, Jamie's time

planning online lessons was mentioned to be spent focusing more on the bigger picture, and less on specific details of each class. In fact, Stone (2011) states that teaching online can help teachers focus on the essential elements of their teaching that promote learning and understanding, and Jamie's account above seems to imply a similar process of re-evaluating what is important for their students.

In conclusion, the lesson planning process and time management during online teaching and how they differed from contact teaching was perceived in two contrasting ways. On the one hand, some participants reported having to spend more time on planning each lesson when teaching online, referring to the way it left less room for improvisation and thinking on the spot. Additionally, it was shared that they had to pay closer attention to the availability and applicability of ICT when designing online lessons. On the other hand, planning online lessons had required some participants to worry less about specific details of each lesson, and instead focus on the bigger picture. What is more, online teaching and planning the related lessons was seen as a new skill in which one of the participants explicitly mentioned lacking competence. This had reduced the usual stress related to planning lessons, as well as lowered personal expectations.

5.2.3   The changed role of supervising teachers

The role of supervising teachers was also brought up during conversations about planning and preparing for online classes. Where supervising teachers during regular contact teaching were often seen as an absolute authoritative figure whose expertise could be relied on, the transition to online teaching helped the participants and their supervisors meet more as equals. In the following extracts, such experiences are presented:

> (24) Alex: It [interaction with supervisors] was more supportive like "Hey, this is new for us too. We're also still learning this, so let's learn together. You can't go wrong because we're no experts either" So what can you do? It gave me a huge boost of confidence on top of it all.

> (25) Jordan: It gave me a feeling like we're colleagues and we really thought about things together.

The transition to online teaching had been a completely new experience for both the participants and many of their supervising teachers. According to Alex, their supervisor had reassured them that because no one had been prepared for a global pandemic and the consequent replacement of contact teaching with online teaching, their approach to supervising had become more encouraging and empathetic than ever before. As becomes apparent in both Alex and Jordan's extracts, their supervisor had emphasized that most teachers in that situation were unexperienced, thus, no one had

been at power to tell anyone else exactly how to carry out online teaching. Moreover, online teaching was reportedly approached as a shared learning experience and planning each online class had been a collaborative effort, comparable to two colleagues working together to solve a common issue. Barton and Haydn (2006) found out that pre-service teachers tend to require support with ICT use, which is particularly the case during online teaching where ICT works as the main medium for teaching, and according to Chen et al. (2010), teacher educators are responsible for providing a safe and supportive environment for learning to use ICT effectively. Furthermore, Barton and Haydn (2006) emphasize the importance of adequate support, as pre-service teachers may already feel overwhelmed with the amount of ICT available.

Although many participants had felt like their supervisors had not expected much from them, and that the participants were able to make their own decisions, one of the participants shared that their supervisor had been more specific with the plans for each class and had given direct suggestions on how tasks should be adapted to an online learning environment. The extract below demonstrates this experience:

(26) Tyler: They [the supervisor] had gone through the plan in such detail beforehand that they straight up me told how certain parts should be carried out online and then they told me that it would go well.

Where direct intervention from supervisors was perceived as unwelcome in most cases when planning contact classes, being directly told by their supervisors what to do during online classes did not seem to evoke a negative response. Tyler's extract above simply implies that they were willing to try out whatever their supervisor had told them would work, which was then accompanied by words of encouragement. This can be the result of the decreased power distance between the participants and their supervising teachers. The more cooperative approach to planning online classes many participants seemed to have with their supervisors may have increased the feeling of mutual trust, and Bandura (1986, as cited in in Hoy, 2000: 4) claims that trustworthiness plays a vital role in how social persuasion is perceived and the effects it has in an individual.

Given these perspectives, it seemed that the overall quality of interaction with supervising teachers had improved with the transition to online teaching. Supervisors were perceived less as authoritative figures and more as colleagues, who had worked with the participants more cooperatively than previously. The supervisors were reported to explicitly express their own lack of competencies in online teaching, thus lowering the participants expectations for personal performance in addition to increasing their confidence. It was also reported that direct supervisor input on how tasks should be carried out was accepted with less reluctance, possibly due to the reduced power distance.

5.2.4 Implementing ICT in online teaching

Discussions about the differences between contact teaching and online teaching also extended to the use of ICT, which in online teaching works as the vehicle for delivering content (Palloff & Pratt, 2013). This alone results in fundamental changes in teaching (Major, 2015), and the related perspectives of the participants were varied and manifold. First, teaching that relies entirely on the availability and functionality of ICT seemed to be more demanding than simply using ICT in contact teaching. The following extract shows how one of the participants had realized that in addition to teaching the contents of each class, they also had to teach their younger students how to navigate different technologies:

> (27) Charlie: They [elementary school students] are so young, so when you teach them, you also have to somehow guide them with their own technology use. When you're not in the same space with them, it's super difficult. (…) You give them a Kahoot! and they're like "What am I supposed to do?". They don't know how to press the *next*-button because they're not at that point where they'd automatically know how to do it, so you have to know how to explain such little things to them very meticulously.

Here, Charlie's experiences reflect one of the challenges that arises with online teaching according to Palloff and Pratt (2013), who argue that teachers need to possess a certain competence with ICT to effectively carry out teaching in an online environment, all the while resolving technology related issues and creating an environment for learning. In Charlie's perception, this was particularly true with younger students, whose use of technologies still requires some external guidance. This was seen as a hurdle in the flow of the lessons, as time had to be spent on carefully instructing students how to navigate different technologies at a distance. The automation of technology related skills was perceived to happen with age and experience, so older students can be expected to be better prepared to use ICT more independently. However, as pointed out by Miller (2014) growing up with technology does not guarantee that all students have the prerequisites to use it effectively.

Teaching entirely with ICT was also perceived as challenging, as it was reported to amplify the negative effects that the occasional unreliability of ICT presents (28). Teaching entirely with ICT was also reported to make adapting to unexpected situations more challenging (29). The following extracts are examples of such perceptions:

> (28) Morgan: It was more difficult because everything was dependent on it [ICT]. In a normal classroom you're able to change your approach on the go, and then my laptop was broken and that was all wonderful and I also had issues with the internet connection.

> (29) Robbie: I had problems with Gimkit where I had to assign students into groups and I had to create multiple separate games on the fly and getting them all to work would have been easier in a classroom.

Morgan and Robbie's experiences with ICT related difficulties in online teaching resonate with previously discussed perceptions of the differences between online and contact teaching, and how the former leaves less room for spontaneity. In these two participants' views, online teaching, and its dependency on the functionality of ICT, had made it harder to make improvised decisions during classes. Robbie's extract provides an example of how managing the class during activities had become more difficult when they had to figure out how to use the available ICT effectively to both resolve an emergent issue of creating multiple separate games in the moment, as well as ensure that they all worked as intended. What can be drawn from these extracts is that Morgan and Robbie would have been able to resolve similar issues with relative ease in contact teaching, but as stated by Wang (2004) and Kiili et al. (2016), self-efficacy with ICT does not directly stem from general self-efficacy as a teacher, but requires specific mastery experiences, through which teachers are able to learn and adapt new ways of teaching.

Despite the aforementioned difficulties, some participants expressed, however that teaching through ICT did not present major challenges or require drastic changes to how they approached their teaching. During online teaching, some participants had used similar platforms and applications as they would have used in contact teaching and reported no major issues with applying ICT in their teaching in an entirely online context. The following extracts illustrate these experiences:

(30) Tyler: It (using ICT in online teaching) wasn't so different because I used it during my other practice periods. There was the e-book that we used for listening exercises on the smartboard, but now it was a version on the screen on Google Meet so it was a little bit different.

(31) Jordan: During the first class I felt a bit lost, but once I figured out how screen sharing etc. worked, I had no difficulties, and my skills were enough to teach online through ICT.

These responses by Tyler and Jordan suggest that their perceived efficacy with ICT had been sufficient and it had allowed them to carry out their teaching with relative ease. The adaption of ICT used in contact teaching was mentioned to work well enough in online teaching settings as well. Even though screen sharing was pointed out as a new skill that had to be acquired, the participants mentioned having quickly adapted to using the feature during online classes. When Tyler's perception is concerned, it seems that their hands-on experience with ICT prior to online teaching had provided them with sufficient competence to effectively use it in an online context as well. Jordan's account also shows that initial struggles with screen sharing did not undermine their performance and they reported satisfactory skills with ICT. These perceptions align with previous studies on teachers' ICT use, and how hands-on

experience and familiarizing oneself with ICT use are crucial to its effective integration in teaching (Ferrari et al., 2011; Kiili et al., 2017; Rikala et al., 2014).

In conclusion, the participants' perceptions of online teaching and how it differed from contact teaching in terms of ICT use seemed to be divided. The responses revealed that teaching with ICT as the only vehicle for content delivery requires a teacher to take their students technological competencies into consideration, and that related issues are more easily overcome in a shared physical space. Also, the dependency on ICT had changed the extent to which participants were able to improvise and make spontaneous decisions during classes. In these instances, difficulties with the choice of ICT or learning platforms had required more effort to resolve than they would have in contact teaching. However, some participants reported satisfactory skills with ICT which had allowed them, in their own opinion, to carry out teaching without substantial difficulties. These perceptions were associated with prior experience with ICT during the year of teacher studies.

5.3 Effects of online teaching on self-efficacy

This section is dedicated to discussing the participants perceptions of how teaching online affected their self-efficacy beliefs as future teachers. The first sub-section presents findings pertinent to the participants' self-efficacy beliefs on the threshold of the upcoming transition to online teaching, and how these established beliefs affected the participants attitudes towards the change in teaching conditions. The second half of this section looks at online teaching as a new skill, previously unacquired by pre-service teachers, and how this novelty was significant in determining its effects on the participants' self-efficacy beliefs.

5.3.1 The role of established self-efficacy beliefs

To understand the effects online teaching had on the participants' self-efficacy beliefs, it is worth discussing the participants' established self-efficacy beliefs before the transition from contact teaching to online teaching. When evaluating their self-efficacy beliefs prior to online teaching, many seemed to agree that having taught approximately four full-length teaching practice periods under normal circumstances had been sufficient to form an idea of what the participants were capable of as pre-service teachers. These beliefs were heavily influenced by extensive hands-on experience with students of all ages, and for some, the chance to teach outside the teacher training school. Some of these positive perceptions are illustrated in the following extracts:

(32) Dakota: I felt rather confident because, after all, I had had the chance to teach students of all ages from comprehensive school to upper secondary school and I had already completed my Instructed Adaptive Practice at a so called "real school", so that already gave me some confidence.

(33) Robbie: By that time I already felt like "Hey, I can handle this and I know I can, and I didn't need to feel nervous being in front of a class. I was able to trust myself and my skills, as well as my pedagogical skills".

The participants seemed to share a sentiment that the year of teaching practice had indeed been successful in constructing a clear image of their capabilities as pre-service teachers. Extensive mastery experiences in real-life teaching contexts had provided the participants with an understanding of their skills. These perceptions are consistent with previous findings by Spector (1990, cited in Coladarci, 1992: 325) which revealed that pre-service teachers' self-efficacy beliefs are positively affected by extensive hands-on training and personal experience. Hoy (2000) has also emphasized the significance of mastery experiences as a source of self-efficacy for pre-service teachers.

In fact, further discussion about the significance of established self-efficacy beliefs prior to online teaching revealed that if online teaching had taken place before the participants had had the chance to establish their self-efficacy beliefs as teachers in contact teaching, their mindset towards the prospect of online teaching would have been more negative. Had online teaching been the participants' first experience with teaching, many felt like they would not have been able to trust themselves with seeing it through successfully. The extracts below demonstrate these perspectives:

(34) Robbie: I would have been terrified. I don't know how I could've survived it when you think about how nervous it makes you, and how uncomfortable and weird the situation is in general when you have never been in the role of a teacher.

(35) Jamie: Completely different because at that point wouldn't have had any idea of how to manage a class and a big part of that for me personally is connected to how I feel in a classroom.

Robbie's reflection reveals a stark contrast between what they stated earlier about their confidence as a teacher in Extract 33, and this hypothetical scenario, where they had not had the chance to establish a strong sense of self-efficacy prior to online teaching. Also, as can be seen in Jamie's extract, it is mentioned that contact teaching had given them an understanding of how to manage a class, implying that such understanding would have been harder to gain if online teaching had been their first experience as a teacher. Thus, both Robbie and Jamie's thoughts about such hypothetical scenario imply that contact teaching was indeed perceived as a safe and effective

way of gaining hands-on experience, which allowed them to approach the inevitable transition to online teaching with confidence.

To summarize, extensive hands-on training under regular circumstances, i.e., contact teaching, had helped many of the participants establish their self-efficacy beliefs prior to online teaching. Teaching students of varying ages in contact teaching, as well as the chance to teach outside the training school for some were among the factors that had built the participants' sense of self-efficacy and increased their confidence in relation to the upcoming transition to online teaching. The ways in which these established self-efficacy beliefs were affected after teaching online will be presented in the following sub-section.

5.3.2 Online teaching as a new skill

Discussion about online teaching and how it affected the participants' self-efficacy beliefs revealed two dominant perceptions. The first of these was online teaching as a new skill, which many participants reported to have increased their self-efficacy. Being able to teach online had required them to master a new set of skills and acquire related competence, which was directly linked to an increase in self-efficacy. The extracts below are examples of such perceptions:

> (36) Charlie: I definitely felt more competent than what I would have been without the online teaching period, because I had to learn an alternative way of teaching, so of course that increases your know-how and self-efficacy.

> (37) Jamie: I felt almost grateful in a way that I actually got the most out of the entire teaching practice, because I was able to teach in so many different situations.

These accounts of online teaching and its effects on the participants' self-efficacy beliefs illustrate that online teaching was perceived as intrinsically valuable. Charlie's extract describes online teaching as a new skill, and that learning and successfully mastering such a skill had increased their sense of self-efficacy. Similar sentiments can be found in Jamie's reflection as well, which involves feelings of gratitude about having to teach online. In their view, online teaching had provided a valuable and enriching experience, giving them an even more well-rounded image of their skills as a teacher. Given the examples above, it can be inferred that online teaching had provided a source of self-efficacy in the form of mastery experiences. As stated previously, a study by Hoy (2000) found out that pre-service teachers' self-efficacy beliefs are increased with gained experience and here, online teaching seemed to have presented the participants with an environment for gaining new experiences. In fact, the extent to which such experiences can affect self-efficacy beliefs in a positive manner may be greater for pre-service teachers than for teachers with years of experience. This is

because pre-service teachers' beliefs about their capabilities are less rigid and more likely to change than those of experiences teachers (Valcke et al., 2012).

In contrast to the perceptions of those who saw online teaching as a self-efficacy increasing experience, some described the novelty of online teaching and everyone's lack of related experience as a reason it did not have major effects on their of self-efficacy beliefs. Comparisons were drawn between contact teaching and online teaching, and how the latter was perceived as a separate experience in which even the supervisors lacked experience. Therefore, it was perceived that the effects of online teaching on self-efficacy beliefs were small to non-existent. These perceptions are presented in the following extracts:

> (38) Tyler: When you think about how online teaching and contact teaching support each other, they're really different scenarios and I didn't feel like it increased my confidence as a teacher significantly.

> (39) Alex: If anything, it made it stronger, but it didn't really change it (sense of self-efficacy) (…) I think that because it was such a new situation for all of us and nobody was an expert, it couldn't really affect the strong teacher identity that has been established in a traditional classroom. It can't affect it because it may even be a separate identity.

Tyler and Alex's reflections on the effects of online teaching on their established self-efficacy beliefs show that the experience did not have significant effects on how self-efficacious they perceived themselves as teachers. Although both stated that online teaching as a new experience and the collective lack of related competence was the reason it did not significantly increase their self-efficacy, the word choices of both participants still imply that some positive changes may have taken place, even if their perceived significance might be considered small. What is more, Alex's extract provides a reflection on teacher identities, and how in their view, teacher identities can be separate from one another. When compared to contact teaching, online teaching was perceived to be so different that experiences in an online classroom could not affect how efficacious they felt about teaching in a traditional classroom.

Tschannen-Moran et al. (1998), who draw on Bandura (1997), discuss the nature of teacher-efficacy, and how teachers can reflect on their experiences and attribute related successes or failures to either internal or external factors. Consistent with these pre-existing theories, Alex and Tyler both perceived the transition to online teaching to be an external factor that they did not have agency in, which according to Tschannen-Moran et al. (1998) can affect the way an individual judges its effects on self-efficacy. Additionally, Alex and Tyler's perceptions align with findings by Tschannen-Moran et al. (1998: 231), according to whom "the collective efficacy in a particular teaching context influences assessments about both task and personal competence". Thus, the collective lack of experience in online teaching may have resulted its effects on the participants self-efficacy beliefs to be diminished.

In conclusion, the novelty of online teaching and its effects on the participants self-efficacy beliefs seemed to present two contrasting perceptions. For some participants, online teaching had presented them with an opportunity to gain new experiences, previously unacquired by pre-service teachers at the University of Jyväskylä. These new experiences were mentioned to directly increase the participants' confidence and self-efficacy as teachers. For others, online teaching was perceived as a detached experience, which was so fundamentally different as a teaching context that its effects – both positive and negative – were small to non-existent. The expressed reasons for this were the separation between teacher identities in online and contact teaching, as well as a collective lack of competence in online teaching.

6   DISCUSSION AND CONCLUSION

This chapter is dedicated to discussing the main findings of the present study. As presented in Section 4.1., the aim of the study was to answer the following research questions:

1. Which sources of self-efficacy are the most influential to pre-service teachers during the year of teacher training?

2. What are the perceived differences between online teaching and contact teaching according to pre-service teachers?

3. What is the perceived effect of online teaching on pre-service teachers' self-efficacy beliefs?

The findings pertinent to each individual research question will be discussed in their own section (6.1). In addition to discussing the findings, this chapter will also critically review the research process, as well as examine the reliability of the study and its future implications (6.2)

6.1   Main findings in relation to the research questions

As presented at the beginning of Chapter 5, the analysis process yielded nine different sub-themes from the interview data. The final clustered and modified sub-themes were the following: 1) *communication and interaction with supervising teachers* 2) *observing classes taught by peers* 3) *successful and failed mastery experiences* 4) *student engagement and interaction* 5) *lesson planning and time management* 6) *the changed role of supervising teachers* 7) *implementing ICT in online teaching* 8) *the role of established self-efficacy beliefs* 9) *online teaching as a new skill*. The first three subthemes are connected to the first

research question, while subthemes 4-7 are connected to the second research question. The eighth and ninth sub-themes are connected to the third research question. These sub-themes contain the multitude of perceptions held by the participants concerning the construction of their self-efficacy, their perceptions of online teaching, as well as its effects on their already established self-efficacy beliefs. This section will discuss these nine sub-themes in relation to the research questions as well as their relation to previous research.

The analysis first revealed that interaction and communication with supervising teachers during the year of teaching practice was considered an influential source of self-efficacy for many of the participants. Reflections about the importance of supervisors most frequently revolved around them maintaining a supportive and safe working environment, as well as providing supportive feedback, which was often reported to increase the participants' confidence and self-efficacy. Supervising teachers were also lauded for helping the participants manage their expectations at the start of the year of teaching practice. These findings aligned previous research by e.g., Bandura, (1995,1997), Uibu et al. (2017) and Juuti et. al (2018), which have indicated that verbal persuasion from supervising teachers is linked to increases in self-efficacy in pre-service teachers. However, the analysis also showed that for some participants, interaction with supervising teachers was occasionally perceived as less than ideal or that the perceived feedback had felt unjustified. This had manifested in these participants feeling frustrated or unsure of their competence as teachers. This finding thus resonates with Bandura's pre-existing theories on self-efficacy beliefs (1995, 1997), and that negative emotional arousal because of unjustified feedback, for example, has the potential to undermine an individual's self-efficacy beliefs.

The second influential source of self-efficacy for the participants of this study seemed to be vicarious experiences in the form of observing language classes taught by their peers. Out of the main sources of self-efficacy that the participants described as meaningful to the construction of their self-efficacy beliefs during the year of teaching practice, observing their peers was most unanimously described as influential. Even though vicarious experiences were frequently described as a potent source of self-efficacy and a way to directly improve one's own chances of succeeding, their perceived value was reported to diminish along the year of teaching practice. Gael et al. (2013) found out that vicarious experiences are the most influential with novel tasks, and the participants of this study indeed seemed to imply a similar notion, as observing classes towards the end of the year were mentioned to carry little to no significance to the participants' teaching. Thus, the results of this study suggest that vicarious experiences for pre-service teachers are at their most influential at the beginning of teacher training, and their importance decreases with gained experience, as pre-service teachers begin to establish their sense of self-efficacy. These findings resonate

with previous research on the importance of vicarious experiences as a source of self-efficacy (e.g., Bandura, 1995, 1997) but also provide new insights into their perceived significance in the teacher training program at the University of Jyväskylä.

In addition to social persuasion and vicarious experiences, the participants also perceived successful and failed mastery experiences as an important source of self-efficacy. Experiences of both success and failure were recalled on many occasions, and their effects on the participants' self-efficacy beliefs were often recalled in detail. Although there is a consensus that successful mastery experiences positively affect self-efficacy and negative experiences undermine it (e.g., Bandura, 1997; Coladarci, 1992 & Hoy, 2000), the results of this study suggest that failed mastery experiences can play an important role in strengthening one's self-efficacy beliefs. For some participants of this study, experiences of failure had worked as strong incentives to avoid a similar situation in the future. For these participants, the experiences of failure had functioned as an important opportunity to learn, rather than an indication of their incapabilities as teachers. The participants were able to critically evaluate the contextual factors surrounding their perceived failure and determine that external factors had affected their performance. Tschannen-Moran and McMaster (2009) have reached similar results, implying that if not all failures directly decrease self-efficacy, especially if the failure is partially the result of external factors.

The second research question of this study concerned the participants' perceptions of online teaching and the ways in which they differed from contact teaching. The analysis of discussions related to online teaching showed that there were four fundamental differences that had emerged with the transition from contact teaching to online teaching. First, student engagement and interaction during online classes was repeatedly described as unsatisfactory and more challenging. The participants had struggled with maintaining a meaningful level of engagement with their students who often hid behind disabled cameras, thus making it difficult to judge whether they were engaged with the contents of the classes. These findings align with previous research and literature on the topic (Clair, 2015; Davis et al., 2020; Palloff & Pratt, 2013; Rovai, 2000), which strongly suggest that interaction and student engagement in an online class fall short of contact teaching, as the physical co-presence of students and teachers is removed.

Whereas the overall quality of interaction with students had decreased with online teaching, the quality of interaction and communication with supervising teachers was quite unanimously reported to increase while preparing to teach online. The participants' responses regarding this change indicated that their supervisors had lacked expertise when it came to online teaching and the related issues. This in turn had reduced the perceived power distance between the participants and their supervisors, which had resulted in the participants and their supervisors to approach the

challenge of online teaching more collaboratively. Juuti et al. (2018) state that supervising teachers have a responsibility to help pre-service teachers overcome situations that could potentially decrease their self-efficacy, and the findings of the present study seem to imply that online teaching, which had the potential to decrease the participants self-efficacy beliefs because of its novelty, was more objectively and successfully managed due to the collective incompetence of both the participants and their supervisors and the consequent collaborative approach to planning and carrying out online teaching.

The fourth and final area of teaching that was reported to have changed was the implementation of ICT during online classes. In addition to managing new platforms and ICT themselves, some of the participants had to also consider the ICT available to their students, as well as their related (in)competencies to effectively use them. These findings resonate with previous research (Ferrari et al., 2011; Kiili et al., 2017; Rikala et al., 2014), which seems to have reached a consensus about teachers' efficacy with ICT, and how meaningful integration of ICT requires specific hands-on experience. Additionally, dependency on the functionality of ICT had presented some challenges for some participants, as device or connection malfunctions were reported likely to undermine the quality of teaching. However, the analysis also revealed that for some, the implementation of ICT in online teaching presented no major obstacles. This seemed to be the case with participants who reported satisfactory levels of self-efficacy in relation to ICT use in general. Overall, the perceptions of the use of ICT as the only means for instruction yielded inconsistent results, but still suggest that general self-efficacy in relation to ICT use may work as an indicator of its effective use in a fully online learning and teaching environment.

The third and final aim of the present study was to find out how the participants experiences during online teaching affected their already established self-efficacy beliefs. First, the results of the analysis imply that many of the participants had indeed managed to establish a strong sense of self-efficacy prior to online teaching. Extensive hands-on training, also found out by Spector (1990, cited in Coladarci, 1992: 325), was shown to increase inexperienced teachers' self-efficacy. Many participants expressed feeling confident in their own skills and capabilities as teachers on the threshold of online teaching, and many indeed emphasized that it was the result of exhaustive hands-on training in various teaching contexts. However, attitudes towards online teaching would have reportedly been different, had the participants not had the chance to establish their self-efficacy beliefs under so called "normal circumstances". In fact, the analysis showed that the dissimilarity between contact teaching and online teaching, and the novelty of the latter were frequently mentioned in the participants' reflections. Online teaching and contact teaching were seen as separate from one another, and success and/or failure during online teaching reportedly had no direct

effects on how the participants perceived themselves as teachers in contact teaching. Thus, self-efficacy beliefs established in contact teaching were quite strong and relatively unaffected by the novelty of online teaching. On the contrary, there were participants who saw online teaching as a new skill and getting the chance to teach online was perceived to increase one's self-efficacy.

Previous research on pre-service teachers' perceptions of online teaching for the time being are scarce, but from the findings of this study it can be inferred that an involuntary online teaching practice period towards the end of the year of teaching practice may not have significant negative effects on pre-service teachers' self-efficacy beliefs.

6.2   Review of the research process

This section will critically examine the research process and the reliability of the present study. In this section suggestions for related future research are also presented.

First, the data sample in this study represents only a fraction English pre-service teachers studying at the University of Jyväskylä. Thus, the findings of this study cannot be generalized to represent the perceptions of all English pre-service teachers in Jyväskylä, or anywhere else - much less those of pre-service teachers majoring in a different subject. Therefore, the findings provide only a glimpse into the experiences of a very specific group of pre-service teachers during a specific time in their teacher training. However, the qualitative nature of the present study makes it possible to provide a detailed and more profound image of the participants' experiences. By using pre-service teachers as participants, the findings of this study amplify the voices of those who are in the process of becoming teachers and, more specifically, how they perceive the affordances and obstacles of online teaching during the early stages of teacher development.

Additionally, as can be seen in Table 1., the structure of the research interviews could have been improved to meet the goals of the interviews more effectively. A retrospective review of the success of each interview during the analysis process revealed that much of the interview data turned out to be irrelevant to the present study. Streamlining and properly piloting the interview structures would have helped in allotting time resources more efficiently during the research process.

Given the qualitative nature of the present study, and thus not being able to generalize its findings to represent a wider sample of pre-service teachers, a more quantitative study on the same topic could make such generalizations possible. Thousands of pre-service teachers in Finland had to adapt to online teaching because of the breakout of Covid-19 in the spring of 2020, and experiences of this tumultuous period

are likely to vary between age groups, major subjects and universities. Therefore, it could prove useful to carry out more extensive research on pre-service teachers' experiences of online teaching. The findings of this study suggest that online teaching as a new skill has the potential to equip pre-service teachers with tools that allow them to utilize their pedagogical and technological competencies in an online environment. Thus, further studies on pre-service teachers' perceptions of online teaching could provide valuable information about the potential introduction of online teaching as a part of teacher training syllabi.

Even though the findings of the present study are bound to a specific university and a small sample, they still provide important preliminary information about how pre-service teachers' construct their self-efficacy beliefs during teacher training, as well as provides detailed findings about pre-service teachers' perceptions of online teaching and how such novel teaching contexts could possibly provide them with a wider set of tools to allow them to adapt to similar unforeseen circumstances in the future.

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APPENDIX 1: THE STRUCTURE OF THE INTERVIEW

Background information
Reasons why teaching is a career aspiration
First experiences as a teacher
Experience with ICT
Before the year of pedagogical subject studies
The first instructed practice period during basic pedagogical studies
During the year of pedagogical studies (prior to online teaching)
The beginning of the year of pedagogical studies and personal expectations
The first lesson of the first practice period and associated experiences
Feelings of success and/or failure during teaching
The role of supervising teachers on own performance
The role of observing peer taught lessons
Utilizing ICT in class
Perceived self-efficacy on the threshold of online teaching
Transitioning from classrooms to online teaching
Initial reactions to online teaching
The first experiences with online teaching
The main differences between regular classroom teaching and online teaching
The perceived advantages and disadvantages of online teaching
Communication with supervising teachers
Peer support
Feelings of success and/or failure during online teaching
Using ICT in online teaching
Perceived effects of online teaching on self-efficacy as a teacher
Online teaching as an experience in retrospect
The importance of teachers having the skills to carry out online teaching
Sense of self-efficacy at the time of the interview

APPENDIX 2: ORIGINAL INTERVIEW EXTRACTS

(1) Charlie: No mä stressasin niitä tosi paljon ja jännitin tosi kovasti koska mä oon vähä sellanen luonne, mutta tota mulla oli ihana ohjaaja joka anto tosi kannustavaa ja sellasta niinku voimaannuttavaa palautetta ihan alusta asti. Ja sillee niinku koen, et se eka aalto boostas mun itsevarmuutta tosi kovasti et se suju. Se mun mielestä antaa semmoista varmuutta siihen, että kiva kuulla vielä silleen että onko suunnitelma nyt näyttääkö se hyvältä ja näin ja sitten että siihen kärkeä vielä tekemään jotain muutoksia jos haluaa, niin kyllä mä koen sen tarpeellisena sen että nähtiin aina ennen sitä tuntia.

(2) Tyler: Tuntu kivalta se että se oli koko ajan siinä silleen tukena ja että se oli sitä että älä stressaa sitä ekaa tuntia, että se eka tunti on aina eka tunti minkä sä ikinä pidät, niin sä sen ei tarvitse olla mikään täydellinen suoritus tai mitään sellaista. Niin se tuntui silleen tosi kivalta sille tajuta, että tämä on kuitenkin ensimmäinen tunti että tässä me harjoitellaan. Että se jotenkin antoi sellaisen tosi turvallisen olon siinä.

(3) Robbie: Hän antoi palautteen myös sille rehellisesti mutta se ei ollut koskaan sellaista ylittävää vaan se oli enemmän just semmoista kannustavaa, ja että aina meidän palautekeskustelujen jälkeen minulle jäi tosi hyvä fiilis vaikka olisikin ollut jotain asioita mitkä meni vähän huonosti.

(4) Jordan: Se mun mielestä antaa semmoista varmuutta siihen, että kiva kuulla vielä silleen että onko suunnitelma nyt näyttääkö se hyvältä ja näin ja sitten että siihen kerkeää vielä tekemään jotain muutoksia jos haluaa, niin kyllä mä koen sen tarpeellisena sen että nähtiin aina ennen sitä tuntia.

(5) Charlie: Mä koin, että mä osittain epäonnistuin sen takia et meillä ei menny sen harkkaopen kans kemiat yhteen kovin hyvin. Ei sillä et se ei ollu mitenkää hänen vika, mut sillee et meil ei vaa niinku mul ei ollu sellanen olo että mulla oli mukava olla hänen kanssaan ja sit musta tuntu että se niinku ei tykänny musta ja se ei oikein tykänny oikeestaa mistään mitä mä tein nii se heijastu sit mun käyttäytymisee et mä olin tosi epävarma ja sillee kaikki mitä mä tein ni mä en ollu varma et oliks se hyvää koska mä koin et se ihminen ei hyväksyny mua.

(6) Robbie: Oli kyllä yksi ohjaaja, jonka kanssa ei ollut niin mukavaa tai luontevaa tehdä töitä ja kaikesta on hänen palautteesta en ollut ihan samaa mieltä.

(7) Dakota: Mulle tuli vähän sellainen, että mä en nyt ehkä sitten tee mitään näitä niinku mun mielestä kivoja juttuja niin se oli ehkä vähän semmoinen että…Kyllä sillä opellakin varmasti oli siis pointti, mutta ehkä mä olisin kuitenkin jotakin halunnut kokeilla ja itse nähdä että toimiiko se vai ei ja sitten myös sen, että miten mä siihen reagoin jos se ei toimi.

(8) Alex: Sä saat niillä pelkillä observointitunneilla jo tatsin siitä sinun omasta luokasta. Mä vaan koen, että ne oli niin järkyttävän tärkeitä ja antoi paljon paljon enemmän verrattuna niihin että käyt vaan huviksesi observoimassa jotain kielen oppituntia joka ei ole millään tavalla koherentti tai liitännäinen sun omaan opettamiseen. Tottakai

sä saat sieltä apuja ja ideoita, mutta se mitä ne antoi ne pohjatunnit sun omalle luokalle niin minkä itse koen erityisen tärkeäksi on se opettaja-oppilassuhde.

(9) Robbie: Aina jos mä näin jonkun kivan aktiviteetin tai tehtävän niin minä kirjoitin ylös mikä se oli ja sitten jos mulla oli ideoista pulaa niin menin aina siihen listaan ja katsoin että "Hei niin toi teki tuon silloin tuolla ja se toimi tosi kivasti".

(10) Jamie: Osasin vähän odottaa mitä tulee ja sit mä tiesin et okei, tääkin ihminen siitä näki tosi paljo se oli tosi hermostunu ja se oli tosi peloissaan tavallaan et se niinku aika paljon paisto siitä mutta se silti pärjäs hyvin niin tuli itelle sellanen tosi rauhallinen fiilis että totatki jännitti mut se selvis ihan hyvin niin kyllä mäkin selviän.

(11) Alex: Se oli alkuun tärkeä. Sen syyslukukauden aikaset observoinnit niin ne oli tärkeää käydä observoimassa niitä kanssa harjoittelijoita, mutta mä koen että niistä puristettiin mehut jo ekan parin kuukauden aikana, tiiätkö? Että siinä vaiheessa kun mennään jo neljännelle tai viidennelle aallolle (…) siinä vaiheessa koen että se alkaa vähän olemaan jo nähty juttu.

(12) Tyler: Minulla oli tämä yksi oppilas, jolla oli keskittymisvaikeuksia niin jotenkin itselle on tosi vaikeaa ehkä tai oli ainakin silloin harkan alussa tosi vaikeaa saada itse siitä sellaista auktoriteettia ja olla silleen että miten käskee oikealla tavalla olla hiljaa ja saada silleen keskittymään siihen tuntiin kun tekisi mieli vaan olla sillee kiltti niille oppilaille. Niin se oli sellainen tosi haastava juttu itselle.

(13) Tyler: Mutta sitten se onnistuminen taas, niin mä muistan että se oli tämä sama oppilas ja kun meillä oli se koe, niin hän ei meinannut millään ymmärtää yhtä tehtävää, että mitä siinä pitää tehdä ja hän oli tosi epämotivoitunut tekemään sitä koska se oli tosi vaikea hänelle ja oli ihan luovuttamassa että "en kirjoita mitään, en laita mitään, en halua kirjoittaa tähän yhtään mitään". Niin sitten kun mä menin siihen ja minä selvitin että kuinka sen tehtävä toimii ja sitten just vähän silleen autoin (…) Niin sitten kun hän lopulta kirjoitti sen tehtävän ihan täyteen niitä vastauksia, niin se tuntuu tosi kivalta ja se että ne oli ihan oikeita lauseita vielä niin se jotenkin tuntui tosi onnistumiselta että sai sen niin kuin oppimaan tai silleen tekemään.

(14) Morgan: Mä opetin lauseenvastikkeita, joka on yks vaikeimmista kielioppiasioista opettaa koska siinä on niinku niin paljon huomioon otettavia asioita niin mä olin ensinnäki ihan tosi väsynyt siinä vaiheessa. Se oli ihan siis muutamia viikkoja ennen joulua ja niinku kaikki hommat painaa päälle ja ihan hirvee stressi ja en saanu nukuttuu ja sit mä pidin yhen tunnin jossa niinku must tuntu että mä tiesin jo aika paljon niistä lauseenvastikkeista mut en ihan tarpeeks kuitenkaan. Mul oli mun dioissa esimerkiks muutama virhe ja sit mä en osannu vastata yhtee kysymyksee ihan hirveen kattavasti jota yks oppilas kysy multa niistä lauseenvastikkeista niin sit sen tunnin jälkeen hetiku oppilaat oli lähteny luokasta ni mä purskahdin itkuun ja sit niinku mä sanoin mun harkkaohjaajalle et oli ihan paskaa.

(15 Morgan: Se oli mun neljäs tunti siitä mun viistuntisesta aallosta ja sit siinä oli niinku viikonloppu ja seuraava tai se viimenen tunti oli tiistaina ni oli kyl muuten semmonen sisuuntuminen siinä viikonlopun aikana mä olin sillee "vittu nyt mä

muuten opiskelen nää lauseenvastikkeet niin hyvin et ei oo niinku mitään epäselvää mulle itelleni näissä et miten nää toimii".

(16) Morgan: Kyl mä uskon et ne onnistumiset on sillee pikkuhiljaa niinku rakentanu sitä mihin on päässy ja siihen niinku sellaseen luottavaiseen fiilikseen omista taidoista mut sit just et oli toi epäonnistuminen jonka ehkä koin et se oli semmonen niinku paska tunti niin kyl mä uskon et sen vaikutukset oli kans aika kauaskantoset et halus välttyä siltä samalta fiilikseltä tai siltä samalta tilanteelta vastaisuudessa.

(17) Robbie: Haastavinta oli se, että sä et pysty näkemään niitä oppilaita ja se että kun sä opetat jotain sä yleensä pystyt kehonkielistä ja ilmeistä vähän näkemään että miten se uppoaa ja miten ne kuuntelee mutta tossa etäopetustilanteessa se on niinku sul ei oo mitään hajua et kuunteleeko ne ees mitä sä kerrot tai jos joku ei ymmärrä yhtään tai onko tää niille liian helppoo.

(18) Tyler: Normaalisti mä voisin kysyä luokan edessä just jotain kysymyksiä ja saada ne vastaavan ne oppilaat niin nyt oli ehkä vähän semmoinen että kun monilla on se että ei välttämättä uskalla avata mikkiä koko luokan edessä siinä kuin kaikki kuuntelee sitä mikkiä niin se on tosi erilainen niin että miten saa heidät osallistumaan ilman painostamatta liikaa.

(19) Jamie: Se vuorovaikutuksen puute. Se on kaikista suurin (…) Se [ohjaava opettaja] sano mulle, et sun suurin vahvuus on se et miten sä oot siel luokan eessä ja miten sä esiinnyt siellä et sitä aspektia ei oo oikeestaan ollenkaan etähommissa niin siitä lähtee yks iso osa mun opettajaidentiteettiä ja sitä kautta kanssa yks iso osa sitä mun itsevarmuutta tavallaan lähtee pois koska mä oon vaan siellä ruudun takana antamassa ohjeita mutta mä en saa niinku ehkä tietyllä tavalla myöskään näyttää sitä omaa persoonaani että niinku tyyliäni opettaa niin paljo ku mitä mä haluaisin.

(20) Jamie: Siihen tunnin suunnittelun meni ehkä tuplasti aikaa minulla henkilökohtaisesti kuin mitä paikan päällä, koska mulle improvisointi on niin iso osa mun opetusta ni mä sit vaan oon silleen että katsotaan kotitehtävät minä katson nyt sitten paikan päällä että miten minä katson ni tässä ne piti jo tosi tarkasti.

(21) Tyler: Yritin pitää mielessä koko ajan jatkuvasti sen, että miettii sitä heidän tilannetta koska tiesi sen että miten paljon tehtäviä heillä on ja sitten samalla mietti sitä että miten kaikkia näitä eri teknologia välineitä pystyy käyttämään ja mitä he pystyy käyttämään.

(22) Morgan: Ainaki must tuntu, et mä laskin sitä omaa rimaani alas et en odottanu iteltäni oikeestaan yhtään mitään et sillee tää on nyt uus tilanne ja mä en voi osata vielä ihan hirveen hyvin ni se ehkä vaikutti siihen suunnitteluun et mä en stressannu siitä niin kamalasti.

(23) Jamie: Mä huomasin mikä oli ehkä oli suurin ero, että semmosia etappeja siinä tuntisuunnitelmassa oli paljon vähemmän et ne oli enemmänki isoja kokonaisuuksia ja niitä oli paljon vähemmän kun mitä paikanpäällä ois ollut.

(24) Alex: Noh, tukemista että "Hei tämä on meillekin uusi juttu. Mekin opetellaan vasta tätä niin opetellaan yhessä. Et voi mennä pieleen koska mekään ei olla eksperttejä tässä aiheessa". Niin what can you do? Niin se anto mulle semmosen hirveen itsevarmuus boostin entisestään

(25) Jordan: Siinä tuli enemmän just semmonen fiilis, että oltiin kollegoita oikeasti että niinku yhdessä mietittiin juttuja enemmän.

(26) Tyler: Hän oli etukäteen katsonut sen suunnitelman niin tarkkaan että hän vaan sanon suoraan siitä joitakin juttuja että miten ne kannattaa toteuttaa etänä ja sitten oli silleen että "hyvin se menee".

(27) Charlie: Ne (ala-asteikäiset) on niin nuoria ja sitte ku sä opetat etänä niitä ni sun pitää jotenki opastaa samalla niitten omaa sitä teknologian käyttöä sillon ku sä et oo ees siin tilassa se oli ihan superhaastavaa (…) ne ei oikeesti osaa välttämättä.. sä laitat niille jonku kahootin ni sit ne on sillee "mitä mun pitää tehä?" Ne ei osaa painaa sitä next-nappulaa koska ne ei oo vielä siinä vaheessa et ne osaa sen automaattisesti sen tehä et sun pitää osata tollaset pikkujutut osata neuvoa niille niin yksityiskohtasesti.

(28) Morgan: Oli hankalampaa koska kaikki oli sen (teknologian) varassa. Kun luokkahuoneessa voi soveltaa ja sitten mulla oli mun läppäri rikki ja kaikki meni hienosti niin oli verkkoyhteyden kannaltakin vaikeuksia.

(29) Robbie: Gimkitissä oli ongelmia kun piti jakaa ryhmiin ja piti luoda monta eri peliä lennossa että miten sen saa toimimaan ja olisi ollut helpompaa luokkahuoneessa.

(30) Tyler: Se (teknologia etäopetuksessa) ei silleen eroo ehkä niin paljon koska mä käytin muittenkin harjoittelujen aikana oli se netti kirja mistä me tehtiin kuuntelu tehtäviä siellä älytaululla , mutta nyt se oli eri asia kuin se oli semmoinen versio se oli siinä niinku Google Meetin näytöllä niin oli silleen vähän eri.

(31) Jordan: Eka tunti oli vähän hakemista, mutta kun tajusi mistä näytönjakaminen yms. toimii niin meni sutjakkaasti, että ei ollut vaikeuksia ja taidot riitti opettamaan teknologioiden avulla etänä.

(32) Dakota: Oli ihan semmonen aika luottavainen kuitenkin kaikkia eri tasoja oli päässyt kokeilemaan tai siis niin kuin alakoulusta lukioon ja oli ehtinyt olla aamulla se soveltava harjoittelu mikä oli niin sanotusti oikeassa koulussa niin siitä jotenkin sai jo vähän varmuutta.

(33) Robbie: Silloin oli jo semmoinen että "Hei mä niinku handlaan tän ja mä tiedän että mä pystyn" ja että ei tarvinnut jännittää enää sitä että on siellä luokan edessä. Että pysty luottaa itseensä ja omiin taitoihinsa ja jo niihin pedagogisiinkin taitoihin.

(34) Robbie: Mä oisin ollu ihan kauhuissani. En tiiä miten oisin selvinnyt siitä kun miettii se että miten paljon jännittää ja miten epämukava ja outo tilanne se on niinkun muutenki ku ei oo koskaan ollut opettajan roolissa.

(35) Jamie: Täysin erilainen koska siinä vaiheessa minulla ei olisi ollut oikeastaan minkäänlaista käsitystä, että miten mä saan sen luokan haltuun ja se on tosi osa ainakin mulla henkilökohtaisesti sitä että minkälainen fiilis mulla on siellä luokassa.

(36) Charlie: Mä koin itteni kyl ehottomasti pätevämmäksi kuin mitä mä oisin varmasti ilman tota etäopetusperiodia, koska sit sä niinku piti ottaa haltuun toinen tapa opettaa niin tottakai se lisää osaamista ja minäpystyvyyttä.

(37) Jamie: Minulla tuli jopa sellainen kiitollinen olo että mä sain….Itseasiassa mähän sai mahdollisimman paljon tuosta koko opeharjoittelusta irti koska mä sain niin mahdollisimman eri tilanteissa opettaa.

(38) Tyler: Jos miettii, että miten se etäopettaminen ja luokkahuoneopettaminen tukisi toisiaan niin ne on niin erilaisia tilanteita että ei siitä tullut sellainen että se olisi hirveästi parantanut mun itsevarmuutta ihan opettajana.

(39) Alex: Maksimissaan vahvisti sitä, että se ei muuttunut millään tavalla (…) mä koen, että koska se oli niin uusi juttu kaikille meille, että kukaan ei ole siinä ekspertti, niin se ei voi oikein millään tavalla muokata jo sitä niin vahvaa olemassa olevaa traditionaalisesti luokkahuoneessa omaksuttua opettajaidentiteettiä. Se ei voi muokata sitä koska se on jopa irrallinen identiteetti.