

THE USE OF TECHNOLOGICAL DEVICES IN ENGLISH TEACHING AS EXPERIENCED BY TEACHERS

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<p>Teknologiaa on käytetty osana opetusta jo vuosikymmenten ajan. Tekniikan kehitys ja saatavuus ovat kuitenkin muuttuneet laajalti vuosien aikana. Nykyään sekä koulun tarjoamat, että oppilaiden omat laitteet ovat vahvasti läsnä kielten opetuksessa. Laitteiden kirjo on moninaistunut uusien laitteiden myötä. Luokassa saattaa olla hyvin laaja kirjo erilaisia laitteita, joita opettaja voi hyödyntää osana opetustaan.</p> <p>Tutkimuksen tarkoituksena on selvittää tämän hetkistä tilannetta englannin opetuksessa yläkoulussa ja lukiossa. Tutkimus kartoittaa, minkälaisia laitteita opetuksessa käytetään, ja miksi. Lisäksi pyritään selvittämään millaisia hyötyjä ja haittoja teknologian käytöstä on vieraiden kielten opetuksessa. Tutkimuksessa pyritään myös löytämään samanlaisuuksia ja erilaisuuksia eri luokka-asteiden opettajien teknologian käytössä.</p> <p>Aineisto koostuu kolmesta yläkoulun- ja kahdesta lukion opettajan haastattelusta. Tutkimus on luonteeltaan vertaileva laadullinen tutkimus ja vastaukset analysoitiin sisällönanalyysin avulla. Tuloksista käy ilmi, että englannin kielen opetuksessa käytetään nykyään yhä enemmän teknologiaa. Laitteiden käytössä ilmeni sekä hyötyjä, että haittoja ja opettajien kokemukset olivat melko samanlaisia yläkoulussa ja lukiossa.</p>	
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1 INTRODUCTION

Technological devices have become an integral part of foreign language teaching. It is not a new phenomenon and the use of technology in teaching has been studied for decades. However, developments are rapid and new devices and applications are launched all the time. The ways technology can be used in foreign language teaching transform and develop all the time and teachers need to adapt to the changes. All these developments can have both positive and negative changes to teaching. Teachers need to try out different possibilities to find the ones that are suitable for their teaching. Consequently, by trying out different things teachers gain experience of the strengths and weaknesses in using technology in foreign language teaching.

The present study aims to find out the variety of technological devices that are used in secondary and high school teaching of English today. Also, the positive and negative effects of the integration of technology are examined to discover how and to what extent technology is nowadays used in foreign language teaching. By interviewing teachers from secondary and high school the answers can be compared and contrasted to find out how similar or different the use of technology is in different school levels. Such comparison has not been specifically done in previous studies. Since the developments in technology are rapid, the study is needed in order to give an overview of the current situation in English classes.

The second chapter introduces the theoretical background related to the present study. In that chapter, similar previous studies are also examined. In chapter three, the methodology and data gathering are introduced. Thereafter, the findings of the study are discussed in chapter four with example data from the interviews. Finally, chapter 5 discusses the findings in more detail and suggests topics for further studies.

2 THEORETICAL BACKGROUND

Technological devices have been used in foreign language teaching for decades. Computers were introduced to foreign language learning field already in 1960s (Al-Mahroogi and Troudi 2014: 1) and the developments in technology have brought many new devices into teaching ever since. The diversity of devices used in classrooms has increased and besides computers, mobile devices, such

as tablets and smartphones, have also become a part of teaching activities. In this section, the concept of computer assisted language learning (CALL) is introduced as a background for this study. Also, the possibilities and challenges in using technology in language teaching are discussed and some previous studies reviewed.

2.1 Computer assisted language learning (CALL)

A widely-used term in the studies of technology use in language learning is *computer assisted language learning (CALL)*. The term was first used in the 1960s and originates from the United States (Thomas, Reinders and Rüschoff 2012: 38). Both second language acquisition theories and trends in language pedagogy have modified the meaning of the term ever since (Davies, Otto and Rüschoff 2012: 36). In addition, the changes in technology have shaped the term. Ever since the use of portable digital devices, such as laptops and smartphones, have become a norm in people's lives, CALL has become more recognized as an innovative area of scholarship (Thomas, Reinders and Warschauer 2012: 23). During the last 30 years, the term has established itself as an integral part of language teaching and research. Nowadays, the development of different devices and applications has developed CALL to a point where national conferences are held and support is given by prominent international associations (Thomas, Reinders and Warschauer 2012: 23-24). The study of CALL has become more popular, since different applications are more and more incorporated into language teaching and thus there are constantly new aspects to study.

The variety of technological devices and the possibilities they offer have diversified over the years. Since the changes have been rapid, teachers have had their doubts about the use of technology in classrooms. The reasons behind their hesitation to include technological devices in their teaching might be their own lack of skills as users of such devices as Thomas, Reinders and Warschauer state (2012:23). Therefore, it is important for teachers to stay in track of the new inventions in technology, to benefit from the new opportunities they can offer for language teaching. In addition to the technology, the concept of CALL itself has also gone through a massive change. The previous behaviourist principles have been replaced by collaborative learning environments, where technology is used to enhance students' participation and communication with others (Thomas, Reinders and Warschauer 2012: 24). Also while learning a language, students can simultaneously

improve their digital skills and cross-cultural knowledge and communication. Therefore, there can be lots of positive effects in CALL.

2.2 Possibilities and challenges of using technology in foreign language teaching

The development of technology has changed our way of life. Computers, tablets and smartphones have become an integral part of our everyday lives. They provide us easy access to limitless amount of information and sources. Studies have shown that students have become *digital natives* (Mahrooqi and Troudi 2014: 2). Therefore, it seems natural to include technology in language teaching. However, it is a challenge for teachers to provide students with meaningful ways of using the devices for learning, so that the technology can be a useful tool. Not only has the access to knowledge radically increased in the multimodal world, but also the authorship and ownership of knowledge has gone through a change (Taalas 2005). One can find vast amounts of information on the Internet and in addition create and share one's own documents for the world to see. However, students may not be aware of the ways technology can be used in language learning and therefore teachers are challenged to show their students the possibilities technology provides for them.

Technology provides new possibilities for language teaching. All the new language learning applications, e-dictionaries and e-books offer both teachers and students endless opportunities for learning. Open-access resources allow the teachers, and also the students, to easily share material in online platforms. Computer assisted language learning can also promote the use of target language and create authentic tasks (Thomas, Reinders and Warschauer 2012: 26). Students can relate to authentic tasks in real life environments and thus their motivation to use the language may increase. Such tasks can give them the opportunity to, for example, get to know people from other cultures who can give them insight to the way of life in other countries. Besides the contact with the outside world, teachers can enhance their classes with up-to-date texts, videos and other material (Motteram 2016: 88). Thus, authenticity can be enhanced in multiple ways. In addition, mobile devices can be used pretty much anywhere, which can take the language learning outside classrooms. Students can, for instance, use the learning applications whenever they want to or continue talking with foreign people online. Consequently, mobile devices also enhance students' independence in foreign language learning.

Teachers have a key role in students' *e-functioning*, which means, for instance, guiding them in the use of multiple new modalities (Dooly 2015: 14). Even though the younger generation can be competent users of technology in their free time activities, they might not be able to use the same media effectively for learning. Teachers should use fairly simple exercises and applications in their teaching since the point is to engage the students with the learning content rather than to spend lots of time understanding the complexities of the applications. Also, teachers need to guide their students in the correct way of using technology, especially considering privacy, copyright and security in an online environment (Thomas, Reinders and Warschauer 2012: 26). No matter how competent the students are in the use of technology, teachers need to make sure that they understand their responsibilities. As Dooly (2015: 19) states, technology is an integral part of today's society, and therefore raising students' competence in using technology, teaches them skills that they will need in the future.

2.3 Previous studies on the use of technology in foreign language teaching

A study by Boukadi (2014: 83-105) examined teachers experiences and perceptions of the uses of technology in foreign language teaching. The study took place in a tertiary institution in the United Arab Emirates in a well-resourced college when it comes to technology. In the study three teachers were interviewed. The first finding of the study was that these three teachers felt that students still needed training when it comes to technology. Despite the talk about the younger generation being "digital natives", the teachers felt that it was not necessarily the case and they need assistance in ICT. Still, they all agreed that use of technology can make their teaching more effective and better meet the varying needs of the students. They also agree that teachers nowadays are, and should be, competent in using technological devices. Nevertheless, there were still difficulties in using more advanced applications due to the lack of experience. The teachers' attitude toward learning to use new applications, however, was overall positive. Negative aspects that arose from the study included, for example, the need for more ICT training and the fact that teachers' need to spend more time in learning how to use various new devices and applications (Boukadi 2014: 96-97). All

in all, the teachers saw technology use as an enhancement for teaching purposes. However, they need support and experience in order to have the full benefit of the new innovations

The possible problems of the use of mobile devices in foreign language teaching was previously studied by Silla (2015). His study focused on the problems that have occurred when mobile devices have been brought to classrooms for the first time and the problems in using them. An online questionnaire was administered, which also included open-ended questions. There were 36 foreign language teachers who filled out the questionnaire. Teachers' own skills of using the devices, the lack of devices for all students and problems with the internet were some examples of the problems that occurred in the teaching of the teachers. In addition, some teachers claimed that they do not know how mobile devices could be beneficially used in foreign language teaching. Since the teachers had problems with the use of devices, they should be provided with more training about how various devices can be used for teaching purposes. In addition to more training for teachers, teacher training should also provide future teachers with proper skills in using mobile devices (2015: 63). This way, they can be able to sufficiently teach their students with the use of mobile devices.

The use of technology in language learning is extensive. Besides traditional devices such as computers, more modern mobile technologies have provided new ways of teaching foreign languages. However, according to the previous studies, they can cause various problems. Therefore, it is interesting to see to what extent teachers have integrated different technological devices into secondary school and high school English language teaching and how successfully. Also, by interviewing teachers from both secondary and high school, the answers can be compared and contrasted for similarities and differences.

3 THE PRESENT STUDY

In this chapter, the aim of the present study and the research questions will be introduced. Also, the choice of methodology, participants and the data gathering are explained. Finally, the data analysis method is discussed.

3.1 Aims of the present study

The idea of this study is to first identify all the different technological devices teachers nowadays use in teaching English. In addition, the positive and negative experiences related to the use of technology are discussed. Consequently, the study aims to find out the strengths and weaknesses of using technology in teaching English. The questions this study aims to answer are:

1. How is the use of technology present in the language classrooms and which devices are used and how?
2. What are the
 - a) positive aspects of using technology in English teaching
 - b) negative aspects of using technology in English teaching

The interviews consisted of questions that were related to the different devices and how they are used. In addition, teachers' opinions and experiences of the use of different technological devices in teaching English were discussed.

3.2 Data collection

In this section, the data collection method and the reasons why it was chosen are explained. First, the participants of the study are introduced. Second, the interviews and theory motivating the choice of data gathering method are discussed.

3.2.1 Participants

Five English teachers were interviewed for this study. Three of the teachers teach in a secondary school and two in a high school. Both schools are situated in the Eastern part of Finland. The idea was to gain information from two different school levels in order to make a comparison of the answers. All the teachers were female and have been teaching English from seven to twenty years. Most of the teachers also teach another subject besides English, such as German, Swedish and Russian. Still, this study focused only on the teaching of English. They all had at least some

experience of teaching in another school level, but had been teaching in their current schools for most of their careers. In this study, the teachers are referred to as teacher 1, teacher 2, teacher 3, teacher 4 and teacher 5. Teachers 1, 3 and 4 are secondary school teachers and teachers 2 and 5 teach in a high school. All the teachers signed a written agreement indicating that the interview data could be used for this study.

3.2.2 Interviews

The data was gathered by conducting five semi-structured interviews with the teachers (in the appendix 1). Dufva (2011: 132) indicates, that interviews are a sufficient method to find out opinions and experiences of the examinees. A semi-structured interview is constructed by determining the main themes of the research and constructing the interview questions based on these themes (Tuomi and Sarajärvi 2009: 75). Thus, the interview questions were constructed to not only learn about all the different technological devices these teachers use in their teaching, but also their experiences and opinions of the positive and negative effects those devices have on their teaching. The number of examinees' (five teachers) was sufficient for the study, since the main idea of a qualitative research is to collect data from participants that have experience and thus can give valid information of the subject matter, rather than receiving as extensive data sample as possible (Tuomi and Sarajärvi 2010: 85).

The interviews were conducted individually and the teachers had a couple of minutes before the interviews to familiarize themselves with the upcoming questions. The discussion was based on the questions, but the teachers also shared some additional information related to the theme. The interviews were conducted in Finnish, since it was the native language of the teachers and thus any language barriers could be avoided. All the interviews were recorded and transcribed and the analysis was accomplished by using the transcriptions of the interviews. The lengths of the interviews varied from 7 to 15 minutes. The data examples in chapter 4 are English translations of the original data. Original Finnish versions of the examples can be found in Appendix 2.

3.3 Data analysis

In transcribing the interview data a set of rough transcription conventions was used, adopted from Alanen (2006: 222, as quoted by Dufva 2011: 145), because the study focused on content rather than small details. The data was analyzed through content analysis. Tuomi and Sarajärvi (2009: 108-120) introduce three different types of content analysis: data-based, theory driven and theory-based content analysis. The chosen theory for the present study was data-based content analysis, because the study focused on the gathered data. First, the data was examined carefully and the relevant information was highlighted and noted from the material for further use. Second, the similarities and/or differences from the data were examined and classified into different categories. Finally, the categories were reviewed in more detail to form theoretical concepts that provide answers to the research questions. All the different devices the teachers mentioned were noted. Subsequently, both positive, and negative aspects and experiences of using technology were categorized and then analyzed further. The findings will be discussed in the next section.

4 FINDINGS

This chapter is divided into three sections: the used devices and how they are used, positive and negative aspects of using technological devices in English teaching. The examples used in this chapter are translations of the original interview material. The original Finnish versions of the examples can be found in the Appendix.

4.1 The devices used and how they are used

In this section, the devices that are used in English teaching are discussed. They are divided into two sub-sections. In the first section, the use of computers and document cameras is described in more detail and the second one focuses on the use of tablets and smartphones.

4.1.1 Computers and document cameras

All of the teachers agreed that the use of technological devices is nowadays extensive in their English teaching. When asked about the devices they used in their English teaching, all of them mentioned the use of computers and document cameras. Today, the teachers had most of their current teaching material either on their computers, or on the publishers' web pages. The document cameras were then used to show the material in classrooms (see example 1):

Example 1

I definitely use the document camera in every lesson. (...) one can show a text from the book or the answers of the exercises from the internet. and of course it is connected to computer so computer is also used. all the lesson plans are on the computer. all the practical Wilma things and things like that are obviously also on the computer. (teacher 5)

In addition to classroom use, the teachers also had other practical information, such as study plans on their computers and communication with the students' parents mostly happened online. It was also becoming increasingly common for students to have their own computers in classrooms, especially in high school, where two of the teachers worked. There, students were assigned to buy a computer for study purposes. Teacher 5 also said that most of the work that was previously done with paper and pencil, was nowadays done with their own computers, as illustrated in example 2:

Example 2

well, they are used more and more all the time. Right now there is this transition period going on and so, with third year high school students, we still do a lot of work with pen and paper but with first year students we mostly use computers. (...) so most of the first year students now have their own computers and some even have electronic course books. And with those students, we try to do all the exams on computers as well, vocabulary tests and also course exams. (teacher 5)

Computers were used more and more in the classroom. Students did a lot of school work on their computers, and they were also used in classrooms, for example, to take exams.

4.1.2 Tablets and smartphones

Tablets were not regularly used in the teaching of these teachers, since not many of their students owned tablets and these schools did not have any tablets for them. The secondary school had discussed the possibility of providing their students with tablets, but that had not resulted in purchasing them yet. Still, at times the teachers talked about students' devices in general, which included all the possible devices students might own, including tablets.

All the teachers interviewed gave examples of the use of students' smartphones in teaching. With smartphones, students used online dictionaries, played educational games and searched information. The reason why smartphones had become useful in classroom activities was the fact that most students had their smartphones with them at school. Therefore, they provided a chance, for example, to quickly look up a word from a dictionary, as in example 3:

Example 3

when for example the dictionary or something else is used. then it is really good and really convenient. and maybe the use of smartphones particularly for the search of information or something like that, since it is the most convenient way to do it, since they (the students) always have their smartphones on them. computers they do not necessarily have on them and it is slow to use. (teacher 2)

Besides searching for information, playing educational games was also mentioned by the teachers while talking about the use of smartphones. They provided an easy access to different kinds of game applications, which could be used in teaching. Two of the secondary school teachers mentioned Kahoot, which is a game-based learning platform where one can create multiple choice questionnaires related to any subject. The game can be played by using different devices and therefore it can be played with any device students have with them. In addition, Teacher 5 mentioned that some new course books had exercises that required an application, as described in example 4:

Example 4

in the most recent course book series, there even is such exercises where the students are asked to use the course books' own application for a vocabulary related exercise for example. (teacher 5)

Since some exercises involve the use of an application, students need devices to complete them. Therefore, it can be assumed that the use of devices such as tablets and smartphones will be increasing because of their transportable size and easy access to applications. The use of

smartphones brought forth both positive and negative experiences, which will be reported in sections 4.2 and 4.3.

4.2 Positive aspects of using technological devices in English teaching

Technological devices are nowadays used to such an extent that we are starting to have a hard time without them. In most schools, teachers have different kinds of devices available for classroom use, which can enrich their teaching. The teachers I interviewed for my study had lots of positive experiences related to the use of various technological devices, which will be discussed in this section. This section is divided into three sub-sections: easier access to information, teaching cultural knowledge and motivating the students.

4.2.1 Easier access to information

The first thing most of the teachers thought about when talking about the use of technological devices in their teaching was the easy access to vast number of sources and information these provided for teaching. Since all the teachers claimed to use at least computers and document cameras in their lessons, they had indeed become useful tools in classrooms. In the interviews, the teachers exchanged their views on the effect the development of different technological devices had had on their teaching. Since some of the teachers had been teaching English for almost two decades, they shared their experiences that the changes in technology had had on their teaching, as in example 5:

Example 5

it has changed a lot, when in the first years of my career I did transparencies by hand, nowadays there is no need to do those. the work is now done on computer. It makes it quicker, for example when the making of exams and material for classes is considered. There is no need to cut and glue things so work is done more quickly...with the technology and on computer. (teacher 1)

As a result of the extensive use of technological devices, online materials had become available for teaching purposes. The work the teachers used to do with paper and pencil was mostly done on computer or other devices. Since material could be found online or saved to computers for further use, the teachers saved a lot of time compared to previous working methods, when technology was not so extensively used. One could search for suitable material related to different subjects and

show students for example videos, newspaper articles or extra material from the publishers' website, as teacher 5 and teacher 2 explained in the following examples 6 and 7:

Example 6

it has made some things easier for example the book series have really good online materials that can be used. the series of books Sanoma pro that we use have their ready-made presentable materials for teachers and so I only have to log on to their website to access all the material. basically, i can click the answer to be visible for the class and it has helped that kind of practical work during a class a lot. (teacher 5)

Example 7

well if you think about presenting a new topic, many times there can be a video or a newspaper article or something like that, that is most convenient to show in class with the document camera. A song or something like that. (teacher 2)

Due to the comprehensive online material of the books, the teachers could easily present new topics and show students correct answers to exercises they have completed. Since there was more material ready for the teachers to use, the classroom activities were easier to carry out. In addition to the books' online material, there was an unlimited amount of other material that could be used either in classroom activities or by the students themselves if they were interested. The teachers gave their students further sources, if they wanted to know more about a specific topic (see example 8):

Example 8

there is of course tremendous amount of material online and therefore I can say to the students where they can find more information about almost any issue. vocabulary, or grammar related issue, if someone wants to look for more information. (teacher 5)

In addition to the easier access to online material, the online platforms, in which information could be stored, had made both the teachers' and the students' work easier. The work that was previously done and collected on paper could now be written on computer and submitted in an online environment, as teacher 5 described in example 9:

Example 9

we have that...eduserVICES (edupalvelut), which means onedrive that is used as our school's own system and so in some courses, all the material can be uploaded there available for the students. and they can return their exercises there and I can then easily check have they done their exercises. and so there is no need to collect all exercises for me to read them, but the students can return them electronically and then I can just check that they have done them (...) and write the feedback there. (teacher 5)

In an online platform, the teachers could keep track of the students' work and also give feedback there, which reduced the use of paper and printer. Also, other material related to the course could be stored there. Since all materials for the course could be stored in the same place, it was easy for

the students to find them. Consequently, the use of technology had given both the teachers and students new, better access to information that assisted the teaching of English.

4.2.2 Teaching cultural knowledge

Languages are used in various cultural environments by a vast amount of people. These people have their own habits and traditions, which have been shaped by their ways of life. Since languages are related to cultures, one cannot be taught without the other. Therefore, the teaching of cultural phenomena related to English was also discussed with the interviewed teachers. The teachers agreed that educating the students about different cultures affecting the English language was important. However, it could be problematic to give the students a realistic and interesting overview of the cultural phenomena. To be able to do that, the teachers claimed that technological devices worked as essential tools that provided them with multiple practical ways to share cultural knowledge with their students, as in example 10:

Example 10:

especially in language teaching in familiarization with cultures and other phenomena (...) and maybe also the geographical dimension, one can easily go and see what a city looks like or make a walk through a city somewhere, for instance in London and get to know the sights of London. so yes it has brought many new aspects...many new dimensions and also timeliness and authenticity to teaching. (teacher 3)

Technology provided ways to teach cultural phenomena and knowledge in multiple ways. It also provided a new way to teach geography, since it was for example possible to make a walk through a city by using technology (e.g. Google Earth). Thus, it gave the students a more genuine picture of the surroundings of cities. It also brought authenticity to the teaching, since rather than looking at pictures, they got an overall view of the surroundings. Besides making walks through cities, authenticity could be increased with the help of exercises. Teacher 1 gave an example of a pair work, where students were instructed to plan their own dream holiday to the United States (see example 11):

Example 11

I was just thinking of an exercise for a eight grade's English class, when we talk about the USA, that they would do with pairs, or of course alone too if they want, a plan for their own dream holiday to the USA where they would search for flights and all like they would seriously book a trip for themselves. Flight tickets, hotel and how much it would cost. where they would go and which places they would visit on their trip. (teacher 1)

Such an exercise gave the students an opportunity to learn about the destination and get an idea of how much preparations and money their dream holiday would require. Thus, they got a realistic picture of what it is like to plan a trip. While searching for the activities they wanted to do and sights they wanted to see, they simultaneously learned cultural knowledge of the destination, which made the exercise multidimensional.

The teachers also discussed how technology assisted them in bringing the culture close to the students. When going through chapters from the course book, they were constantly being introduced to unfamiliar cultural phenomena, which were difficult for them to fully comprehend. On such occasions, the use of technology provided the teachers multiple ways to bring the culture into their classroom, as is seen in example 12:

Example 12

if we think about presenting a new topic if it is related to a theme or a topic or there comes an unfamiliar term in the language teaching, or a food or something related to a specific culture like the Haka dance in New Zealand or other. then the information can easily be searched and pictures can be shown and things can be brought close to the student. (teacher 3)

As discussed earlier, technology gave an easy access to information, which helped in giving students a comprehensive picture of cultural phenomena. Besides pictures and text, the teachers searched for videos and other material, which gave the students a more realistic view of the topics discussed. All in all, the technological devices were used to broaden the students' knowledge of cultural phenomena.

4.2.3 Motivating the students

Technological devices bring new dimensions to the teaching of English. Besides the benefits on the teacher' work, they also provide the students with multiple new ways of doing exercises. The changes in the classroom work can be seen as both a positive and a negative thing, since students' levels of skills in using new devices differ a lot. Some can feel completely puzzled with technology, while others are totally comfortable with it. The teachers gave evidence that technology could be a motivating thing in their teaching. Even the students who had weaker language skills had a chance to show their expertise, if they were confident in using technology. In addition, the more proficient ones could help other students, who were not familiar with the use of technology. Teacher 3 gave

examples of the positive experiences weaker students had had in their classes, when technology was used as an aid (see examples 13 and 14):

Example 13

as a motivating factor. one can be very good in languages but have weak skills in using technology. so actually considering the use of technology among students with different levels of language skills in many cases it is a good thing for the weaker ones since they get to show off their skills since many times they can use the equipment and technology a lot better. especially boys since they play a lot of games (...) on the internet...and vocabulary...so actually it is good for students of different levels of language skills since the weaker ones' get to have positive experiences. (teacher 3)

Example 14

boys are really skillful with the devices. even though they have lower skills in the traditional classroom activities and in written tasks and in this way they get to really show off their skills. even though they wouldn't have so good language skills they can get really motivated in that situation. and they feel at home in the situation. (teacher 3)

Some of the students were not comfortable with the more traditional classroom activities, but were proficient in using technological devices and therefore able to get successful experiences when the devices were used in teaching as well. Consequently, the skills students had learned while gaming and doing other activities in their free time could be used in learning languages, too. Not all students, or even teachers, were proficient users of such devices. Therefore, some students were able to help the teacher and got a chance to share their knowledge with others (see example 15):

Example 15

it has brought a lot of new things (to teaching) and then also it is nice that students get a chance to teach the teacher since the teacher does not know what and how to do things and they know such things in a totally different way. (teacher 1)

It is important for all students to have successful experiences in language learning, even though their language skills might be lacking. The technological devices offered some students the opportunity to show their skills in other ways. It was beneficial for both the students and the teacher, since they got to help each other in using the devices and applications that were unfamiliar to them. Overall, making use of technological devices which were vastly used in students' free time, in teaching was a motivating factor for some students. Although students' and teachers' skills in using technology varied substantially, they could learn from each other and thus become more confident users of technological devices. In the next section, negative aspects of using technological devices in English teaching are discussed.

4.3 Negative aspects of using technological devices in English teaching

Even though technology can enhance teaching in multiple ways, it can also cause problems. There can be problems with the devices themselves and teachers and students might not yet be comfortable enough with technology to benefit from the use of it in teaching. Besides the positive aspects, the teachers also shared their experiences of different negative impacts considering the use of technology in their teaching, which will be analyzed in this section. The findings are divided into three sub-sections: problems with the use of devices, problems with students' concentration and the correction of essays.

4.3.1 Problems with the use of devices

Even though technological devices can enhance teaching, they do not always work perfectly and there can be other problems related to the use of technology, such as problems with the internet connection. Even though modern technology is highly developed and the teachers relied highly on technology, problems occurred and they caused difficulties for the teachers. Therefore, the teachers needed to have a backup plan, if they suddenly were not able to use the material they had on computers or online (see example 16):

Example 16

From time to time these systems crash and then all the traditional things such as black boards are needed. (teacher 1)

The more traditional teaching equipment, such as black boards, compensated for modern technology, if problems occurred. Even though technology had replaced many traditional teaching equipment, those were not forgotten. One could never be completely certain that technology worked, which caused problems. If a teacher had planned a lesson where computers were used and for some reason there was a problem with the internet connection, it caused difficulties (see examples 17 and 18):

Example 17

when you are prepared to do things in a specific way and then it for some reason does not work. cannot for instance connect. then you feel like confused what to do next (...) then one needs to go back to the old habits like writing things on a black board. (teacher 4)

Example 18

there always has to be a...plan b. what if they (students) do not have their computers with them. what if the internet does not work or what if. (teacher 2)

The teachers claimed that they could not rely on technology completely, since sudden problems with the use of it could disturb and hold up their teaching. Both problems with the internet and problems with the use of devices were mentioned as reasons why the teachers needed to have alternative plans for their classes. Another factor that took up a lot of time was getting to know all kinds of different applications and devices. Although variety in teaching methods was seen as a positive thing, without testing different options, one could not know which ones were suitable for teaching. Thus, a lot of time could go to waste, since not all devices and applications turned out to be beneficial for teaching purposes, as described in example 19:

Example 19

i feel that a lot of time goes to learning about different applications and to use different devices. and then you notice that this wasn't good and this wasn't needed after all and there is no use for this. (...) a lot of time goes to getting to know and testing new applications and devices. (teacher 5)

The fact that there were many new possibilities also meant that teachers needed to take their time to learn how and if different devices and applications could be suitable for their teaching. Thus, learning how to incorporate new technology into teaching meant more work for the teachers. In addition to teachers' own use, students had a vast variety of different devices. If those devices were incorporated in teaching, teachers wanted to be able to assist students in their use, which was sometimes problematic. Also, practical issues related to technological devices caused problems with their use, as teacher 5 explained in example 20:

Example 20

mostly the fact that nowadays students have so many different devices. the spectrum is huge. and then one should basically be able to advise everyone how to use different things. and I'm not an expert in that field. so maybe the practical use of technology in lessons is a challenge. plus the fact that battery can die especially if a student has used the device the a whole day for studying. and then we are unable to recharge the battery and so there are mostly such practical problems with the technology. (teacher 5)

English teachers are not required to be experts in the use of technology. However, students can have problems with using different devices. The teachers obviously wanted to be able to help their students, but it was challenging since there were so many devices used in classrooms that they were not familiar with. Furthermore, practical issues with the use of technology, such as low battery caused problems. In summary, the teachers felt that although technology provided variety to

teaching, there were still problems with the use of it. Learning to use different devices took time and the devices were not always completely reliable.

4.3.2 Problems with students' concentration

Since technological devices provided an easy access to information, students could easily use them for their own purposes during a lesson. Even if they were advised to do specific tasks, it was difficult for the teachers to keep track on everything that happened in a classroom. Thus, rather than doing their tasks, students used social media or did other things they were not supposed to with their devices. Therefore, they lost their concentration on the subject and disturbed the lesson, as explained in examples 21 and 22:

Example 21

for example the use of smartphones in class. that it would not cause disturbance and the students wouldn't go to their own socializing sites. they should obviously be used for learning. they can be used for studying with teacher's permission. but other than that their use is forbidden in normal situations to avoid problems with concentration. (teacher 1)

Example 22

the only thing is that everyone actually does the exercises with their smartphones rather than their own things with the phone. the teacher needs to keep track of it. (teacher 4)

It was problematic for the teachers to make sure that students actually did what they were supposed to. One secondary school teacher said that they had forbidden the use of smartphones and they could be used only if permitted. The teacher claimed that smartphones disturbed students' concentration and were therefore not allowed to be used at all times.

Teacher 2 shared her view on why students failed to concentrate when their own devices were included in the teaching. Although there were a lot of good exercises and games to be used, students did not yet understand the benefit they have on learning purposes. In their opinion, smartphones, for example, were used for their own entertainment and not as a learning tool. Therefore, they got easily distracted and started to do their own things with their phones. Thus, smartphones in teaching still did more harm than good (see example 23):

Example 23

right now smartphones maybe still do more harm than good. students don't understand that it could be useful (...) nowadays there are vocabularies and vocabulary games and other things but the problem is that the students do not see it as a tool. (...) they see it as entertainment. so the fact that you get them focused on just to do the vocabulary exercises with an application. (teacher 2)

Students should understand that when their devices are used in lessons, they should only concentrate on the actual exercises. However, many students started to do other things with their phones. Therefore, teachers needed to keep a close eye on students during exercises with their devices to make sure that they did what they were supposed to, Teacher 2 also said that if students could not concentrate because of their own devices, these needed to be taken away from them (see example 24):

Example 24

i always try to appeal to students own awareness of the fact that it disturbs their concentration and if they cannot stay away from their device, then they should give it to me. i can put it to a charger on my desk. and some students willingly give them to me. or well i kind of make them give it to me since there are these persistent users (...) and if they understand to use them for learning then sure it is okay. but if it is something else then i must confiscate them so to speak. (teacher 2)

The teacher said that some students understood that their use of devices disturbed their concentration and willingly gave their devices to her. Still, there were situations where the teacher had no other choice than to confiscate the phones. Students should realize that besides entertainment, their smartphones could be used for learning purposes, as a teacher stated in example 25:

Example 25

i really hope that this hype of smartphones passes by. that students would realize that it is just an ordinary tool that can be useful. (teacher 2)

Even though smartphones had already been used for a while, the teacher said that there was still a “hype” of smartphones. In their free time, students spent a lot of their time on their phones and therefore found it difficult to see their phones as learning tools. Consequently, some students had problems concentrating on learning and did not benefit from their own devices being used in English classrooms.

4.3.3 The correction of essays

A problem that only emerged from the interviews with the high school teachers was the correction of essays. In the interviews with the secondary school teachers, none of them mentioned anything about this subject. Both high school teachers explained that they had not found any practical way to correct essays as easily on computer as by hand. They both said that it took more time to mark and explain students' mistakes on computer, and therefore they still preferred doing it by hand (see example 26):

Example 26

the only major weakness is essay. one needs to be able to make notes and give feedback on essays and electronically it is really slow to click the right place and to try to get the feedback in correct places for everyone. it takes time. so for that it isn't (good). at least i haven't been able to come up with a solution for how to correct them as fast as by hand. (teacher 5)

Making notes and giving feedback in correct places of the essays was seen as a problem when essays were corrected electronically. Teacher 5 claimed that it took more time than correcting by hand, which was an obvious problem. Teacher 2 also said that essay correcting programs should be significantly improved to become better than the traditional way of correcting essays with paper and pencil (see example 27):

Example 27

in writing, the word processors are excellent. one can correct one's own text easily and so on. but then how it is sent to the teacher and how the teacher corrects it cause big problems. I have tested many different platforms and programs for correction of essays and all the ones I know are unfortunately a lot clumsier, slower, and more difficult to use than the traditional way of correcting with pen and paper. so they should be improved a lot. (teacher 2)

Even though the teacher claimed that it was easier for the students to write an essay on computer, returning it to the teacher and correcting it was more difficult. Various programs and platforms had proven to be inconvenient to use and thus the traditional pen and paper was still seen as a practical alternative. All in all, neither of the teachers had yet found a suitable program for essay correction, or the existing ones needed improvement to make the electronic correction of essays more convenient. In the next chapter, the comparison between the secondary school teachers' and the high school teachers' opinions are discussed in more detail.

5 DISCUSSION AND CONCLUSION

In this study, the teachers explained which technological devices they use in their English teaching and how. They also shared their positive and negative experiences related to using them. To sum up, the way these five teachers used different devices was quite similar. All the teachers said that at least computers and document cameras were used in every lesson. They were used, for example, to search for information and exercises or to present material. Teacher 2 and teacher 5 said that nowadays high school students have to buy a computer for school purposes. Therefore, in high school, computers were not only used by the teachers, but also by the students during classes. In contrast, in secondary school, the teachers said that the use of computers was mostly limited to teachers using them. The schools did not have many computers for students to use and they did not have to own computers or bring their own devices to school. Mobile devices, however, were used similarly in both schools. Neither of the schools could offer tablets for the students, hence all the teachers agreed that the use of tablets in their teaching was minimal. Smartphones, in contrast, were used in both schools and all five teachers gave various examples of how they have integrated them to teaching English.

All the teachers gave similar positive experiences of using technology in teaching English. They discussed the easy access to information, teaching cultural knowledge and motivating students, which were discussed in section 4.2. They all agreed that information online provided them with various possibilities to, for example, teach cultural knowledge, as Thomas, Reinders and Warschauer (2013: 24) also stated. Also, using technology was natural for some students and they got motivated, if they had a chance to use their ICT skills in learning English. The students indeed were “digital natives”, as Boukadi mentioned in her study (2014: 83-105) and therefore had positive experiences because of CALL. Considering the negative aspects discussed in section 4.3, both the secondary and high school teachers shared similar experiences of problems with the use of devices and problems with students’ concentration in sections 4.3.1 and 4.3.2. Students’ skills in using technology still varied substantially, which caused problems, as Boukadi also claimed in her study. In addition, there were practical problems, such as the internet not functioning. Teacher 2 mentioned that students did not regard smartphones as tools for learning, which could cause problems for them to concentrate in class. The same problem was also discussed in the article by Thomas, Reinders and Warschauer (2013).

Only the high school teachers mentioned the correction of essays as a problem. Both teacher 2 and teacher 5 considered it easier for the students to write and return their essays electronically, but the correction and giving feedback was a problem. As teacher 5 explained in section 4.3.3 in example 26, she had not found any way of correcting essays as fast electronically as with paper and pencil. Possible reasons for the problem could be teachers' lack of experience since correcting essays electronically is a rather new phenomenon. There are also different types of essay correcting platforms and perhaps these teachers have yet not found a suitable one for them. The teachers need experience to become confident users of new devices and applications, as Boukadi stated in her study.

The risk of misinterpreting the answers of the teachers were minimized by asking unambiguous questions in the interviews. Also, I explained the questions in more detail, if there was confusion among the teachers. Still, interpreting someone else's sayings may cause misinterpretations and therefore affect the reliability of the results. The sample of the study was fairly small and the study therefore does not give a comprehensive picture of the overall use of technology in schools.

Based on the present study, it can be suggested that the use of different technological devices in secondary and high school English teaching is extensive. Both the more traditional and modern mobile devices are used. The devices and applications provide new possibilities for teaching English but it does not come without problems. Teachers need training and experience in order to become confident users of the new technology. In addition to teachers, students also need experience in using technological devices in learning to become accustomed to using the devices as learning tools.

For further studies, more teachers could be interviewed in order to get a broader view of the matter. Additionally, the same subject could be examined in quantitative manner to get large-scale insights. Also, the experiences of students could be examined to find out their opinions of using technology in foreign language learning. Thus, teachers and students' opinions could be compared in order to discover the most effective ways of using technology in foreign language teaching. All in all, technology use is an integral part of teaching English these days and more and more devices are used during lessons. With the help of experience and working devices, technology can enhance English teaching in many ways.

BIBLIOGRAPHY

- Boukadi, S. (2014). Critical approach to integrating ICT into second language learning. In R. Mahrooqi and S. Troudi (eds.) *Using technology in foreign language teaching*. Newcastle upon Tyne: Cambridge Scholars Publishing. 83-105.
- Davies, G., Otto, S. and Rüschoff B. (2012). Historical perspectives of CALL. In M. Thomas, H. Reinders and M. Warschauer, (Eds.) *Contemporary computer-assisted language learning*. Bloomsbury Publishing PLC. 36-53.
- Dooly, M. (2015). Learning to e-function in a brave new world: language teachers' roles in educating for the future. In A. Turula and B. Mikolajewska, (eds.) *Insights into technology enhanced language pedagogy*. Peter Lang AG. 11-25.
- Dufva, H. (2011). Ei kysyvä tieltä eksi: kuinka tutkia kielen oppimista ja opettamista haastattelun avulla. In P. Kalaja, R. Alanen, and H. Dufva (eds.), *Kieltä tutkimassa: tutkielman laatijan opas*. Helsinki, Finland: Finn Lectura. 131-145.
- Farr, F. and Murray, L. (Eds.). (2016). *The Routledge handbook of language learning and technology*. Milton Park, Routledge.
- Mahrooqi, R and Troudi, S. (2014). Introduction: using technology in foreign language teaching. In R. Mahrooqi and S. Troudi (Eds.) *Using technology in foreign language teaching*. Cambridge Scholars Publishing. 1-7.
- Silla, A. (2015). *Mobiiliteknologian käytön ja käyttöönoton ongelmia vieraiden kielten opetuksessa*. Unpublished Pro Gradu Thesis. University of Jyväskylä, Department of Mathematical Information Technology. <https://jyx.jyu.fi/dspace/handle/123456789/46144>
- Taalas, P. (2005). *Change in the making: strategic and pedagogical aspects of technology integration in language teaching Towards multimodal language learning environments*. Jyväskylä: Centre for Applied Language Studies.
- Thomas, M., Reinders, H. and Warschauer, M. (2012). Contemporary computer-assisted language learning: The role of digital media and incremental change. In M. Thomas, H. Reinders and M. Warschauer, *Contemporary computer-assisted language learning*. Bloomsbury Publishing PLC. 21-31.
- Tuomi, J. and Sarajarvi, A. (2009). *Laadullinen tutkimus ja sisällönanalyysi*. (6th edition) Helsinki: Tammi.

APPENDICES

Appendix 1: Interview schedule in Finnish

1. Kuinka kauan olet opettanut englannin kieltä?
2. Opetatko muita kieliä kuin englantia, jos opetat niin mitä?
3. Millä asteella opetat englantia? Oletko opettanut muilla asteilla?
4. Millaisia työskentelytapoja ja apuvälineitä käytät opetuksessasi? Miten ja miksi? (tehtävätyypit, oppikirja, muut lähteet yms.)
5. Onko teknologian kehitys ja laitteiden käytön yleistymisen vaikuttanut omaan opetukseesi? Vertaile.
 - a) Jos on, miten ja miksi?
 - b) Jos ei, miksi?
6. Käytätkö opetuksessasi teknologisia apuvälineitä? Jos käytät niin mitä (esim. dokumenttikamera, tietokone, tabletti, älypuhelin yms.) miten kyseiset laitteet ovat käytössä ja miksi? Erittele laite kerrallaan.
7. Käyttävätkö oppilaat teknologisia apuvälineitä oppitunneilla?
 - a) Jos kyllä, mitä ja miten?
 - b) Jos ei, miksi?
8. Millaisissa opetustilanteissa käytät teknologiaa hyväksesi? Esim. uuden asian esittely, kappaleen läpikäynti, tehtävät, ryhmätyöt
9. Onko teknologian käyttö opetuksessa sopinut joissakin tilanteessa hyvin ja toisissa heikommin? Kerro kokemuksiasi.
10. Miten teknologian käyttö sopii eri tasoisille oppilaille? Onko heidän teknologian käytössään eroja? Kerro kokemuksia.
11. Onko teknologian käytöstä hyötyä opetuksessa? Miten ja miksi?
12. Onko teknologian käytöstä opetuksessa miinuspuolia? Jos on, mitä ja miksi?

Appendix 2: Original data examples in Finnish

- (1) dokumenttikameraa käytän joka tunnilla ihan ehtottomasti. (...) voi näyttää tekstiä, kirjan tekstiä tai sitten just niitä aiheistettuja ratkasuja netistä. ja tietenkin just tietokoneeseen on yhteydessä joten tietokonetta käytän kanssa. kaikki tuntisuunnitelmat on koneella. kaikki käytännön wilmajutut ja muut on tietenkin tietokoneella. (opettaja 5)

- (2) no siis koko ajan mennään siihen suuntaan enemmän että käyttävät. Et nyt on just kun on tää murrosvaihe niin oikeestaan abien kanssa me tehään hyvin paljon vielä paperilla ja kynällä kun taas ykkösten kanssa pääsääntöisesti sitten koneella. (...) että ykkösillä rupee olemaan jo niitä koneita ja sähkösiä kirjojakin. ja siihen pyritäänkin et he tekis kaikki kokeetkin, sanakokeet ja kurssikokeet jo sitten koneella. (opettaja 5)
- (3) ku esimerkiksi käyttää sitä sanakirjaa tai jotain muuta. niin sehän on hirveen hyvä ja se on tosi näppärä. ja ehkä niinku just se kännykän käyttö siihen tiedonhakuun tai muuhun niin se on kaikkein sujuvinta, koska niillä on aina ne kännykät mukana. tietokonetta ei välttämättä oo ja se on hidas. (opettaja 2)
- (4) näissä uusimmissa kirjasarjoissahan on ihan jotain semmosia tehtäviäkin missä pyydetäänkin käyttämään jotain kirjasarjan omaa sovellusta johonkin sanastotehtävään esimerkiksi (opettaja 5)
- (5) onhan se vaikuttanut paljonkin, kun miettii just uran alkuaikoina teki hienoja kalvoja ihan käsin, niin nykyään ei semmosia tartte tietenkään enää ite väsäillä. että se on siirtyny kyllä tietokoneelle. Kyllähän se nopeuttaa, kun miettii ihan jotain kokeiden tekoa, materiaalin tekoa. ei tartte kopioit liimaa leikkaa, vaan ne käy paljon nopeemmin kyllä tuolla...tekniikan avulla tuolla koneella. (opettaja 1)
- (6) se on helpottanut joitakin asioita esimerkiksi kirjasarjoilla on omia tosia hyviä nettimateriaaleja mitä voi hyödyntää. Sanoma pro:n kirjasarja mitä me käytetään niin heillä on siis nämä tämmöset esitysmaalit opettajille valmiina elikkä mun ei tarvii kun kirjautua niitten nettisivuille mulla on kaikki niitten niinku. periaatteessa mä voin sieltä klikkailla vastaukset esille ja et se on tosi paljon helpottanu kyllä semmosta käytännön työskentelyä tunneilla. (opettaja 5)
- (7) no jos aattelee uuden asian esittelyä, niin monesti saattaa löytyä joku video tai joku lehtiartikkeli tai joku joka on kaikkein kätevintä näyttää sillä dokumenttikameralla siinä luokassa. joku laulu tai joku muu. (opettaja 2)
- (8) tietenki se että materiaaliahan löytyy ihan älyttömästi netistä et voi sanoa opiskelijoille melkein mistä vaan asiasta. sanastoasiasta tai kielioppiasiasta että mistä löytyy sitten lisäinfoa jos joku haluaa etsiä sitä. (opettaja 5)
- (9) meillä on tuo...edupalvelut elikkä onedrive sekä koulun sisäisenä systeeminä niin joillakin kurseilla pystyy tekemään siis niin et laittaa kaikki maalit suoraan sinne opiskelijoille nähtäville. ja he pystyy sinne palauttamaan tehtäviä ja mä voin sieltä niinku helposti katsoa et onko joku tehtävä tehty. et ei tarvii enää kerätä kaikkia tehtäviä niinku itelleen luettavaks paperilla vaan ne voi opiskelijat voi palauttaa ne sähköisesti ja sit mä vaan katon et se on tehty (...) ja voi kirjottaa sinne palautteet ja muut. (opettaja 5)
- (10) varsinkin kielenopetuksessa eri kulttuureihin tutustumista, eri ilmiöihin tutustumista (...) ja ihan tämmöstä niinku maantieteellistä ulottuvuutta ehkä, että voidaan mennä helposti kattomaan jotakin kaupunkia tai tehdä kaupunkikävely jossakin vaikka Lontoossa ja tutustua Lontoon nähtävyyksiin. et onhan se tuonu aivan mielettömästi...mielettömästi noita uusia ulottuvuuksia ja semmosta niinku ajankohtasuutta ja autenttisuutta opetukseen. (opettaja 3)
- (11) just mietin englantiin kasiluokalle, kun on kun USA:sta puhutaan että he tekisivät sitten pareittain tai miksei yksinkin sitten voi tehdä semmosen. esim miettivät oman unelmamatkansa sinne Amerikkaan ja sitten kattoo ihan lentojen hinnat, että varaavat itelleen tavallaan "leikisti" matkan sinne. Lentolipun, hotellin, et paljonko se maksas. mihin he menee ja missä käyvät siellä. (opettaja 1)
- (12) jos ajatellaan et mennään uuden asian esittelyyn jos se liittyy johonkin teemaan tai aihepiiriin tai jos kappaleessa tulee esille joku semmonen vieras termi kielenopetuksessa. tai joku ruoka tai joku tiettyyn kulttuuriin liittyvä vaikka joku haka-tanssi Uudessa Seelannissa tai muuta. niin sitten voidaan ettiä näppärästi se tieto ja kattoo kuvia ja tuua se niinku lähelle oppilasta. (opettaja 3)
- (13) tämmönen motivoiva. et voi olla erittäin hyvä kielissä mutta taas teknologian käyttö on tosi huono. että oikeestaan siinä tämä teknologian käyttö eritasoisille että siinä niinku nämä monesti heikommat on hieno homma heille et he pääsee näyttämään kykyjään ku he taas osaa monesti näitä koneita käyttää paljon paremmin ja teknologiaa ja tekniikkaa. pojat etenkin kun he pelaavat niin paljon (...) näitä pelejä netissä ja tietävät...ja sanastoa...että melkein että eritasoisille sinällään he just saa positiivisia kokemuksia nämä heikommat. (opettaja 3)
- (14) pojathan on hirveen näppäriä. vaikka ne oli heikko tasosia niinku ikäänku tämmösessä perinteisessä luokkatyöskentelyssä ja kirjallisissa tehtävissä näin hehän pääsee niinku todellakin näyttämään taitojaan. sitten vaikka se ois puutteellinen se kielitaito, mutta motivoituvat sitten kyllä hyvin usein siinä tilanteessa. Ja tuntevat sen niinku omaksensa. (opettaja 3)

- (15) se on paljon tuonu uutta (opetukseen) ja sitte just tämä kiva et oppilaat pääsee opettamaan opettajaa koska opettaja ei osaa, eikä tiedä niin ne sitten tietää ihan eri tavalla. (opettaja 1)
- (16) Välillä nämä kaatuu nämä systeemit, niin sitten tarvitaankin perinteisiä liitutauluja ja kaikkia. (opettaja 1)
- (17) ku siihen varautuu että kaikki niiku menee, tai toivon mukaan menee sen systeemin mukaan ja sitten kun se ei pelaa jostakin syystä. ei saa yhteyttä vaikka jonnekki, niin sitte se on vähä semmosta noni no mitäs nyt tehään (...) sit taas siihen vanhaan systeemiin että taululle kirjetellaan. (opettaja 4)
- (18) aina pitää olla sit semmonen... varavaihtoehto, että entäs jos ei oo konetta (oppilailla), entäs jos netti ei toimi tai entäs jos (opettaja 2)
- (19) musta tuntuu et hirveest menee aikaa semmoseen että opettelee erilaisia...erilaisia sovelluksia ja erilaisia laitteita käyttämään. ja sit huomaakin et tää ei ollukkaan hyvä ja tätä ei tarvinnukaan ja tästä ei oookaan mitään hyötyä. (...) tosi paljon menee työaikaan siihen niinku eri sovellusten ja laitteiden niihin tutustumiseen ja kokeiluun. (opettaja 5)
- (20) no tällä hetkellä lähinnä se että on niin erilaisia laitteita opiskelijoilla. se kirjo on ihan valtava. ja sitten pitäis osata periaatteessa jokaselle kuitenkin neuvoa että miten joku juttu toimii. ja en ole kuitenkaan sen alan asiantuntija. niin ehkä se niinku se käytännön teknologian toimiminen tunneilla on haaste. plus sitten tää että akku loppuu ja varsinkin jos opiskelee koko päivän eli käyttäny sitä niin akku loppuu. ja sitte ei saaha lisää virtaa ja eli niinku tämmösiä käytännön teknologisia ongelmia lähinnä. (opettaja 5)
- (21) esimerkiksi kännykän käyttö tunnilla. just, ettei se häiritse ja sit ettei siellä olla omissa..omissa seurustelupalstajutuilla sitten siellä että. et tietenki oppimiskäyttöön. opiskeluun niitä saa käyttää, et sitten ku on opettajan lupa, niin käytetään. mutta niinku normitilanteessa käyttö on kielletty ettei se vie sitä keskittymistä. (opettaja 1)
- (22) ainoo ehkä tossa on se että ne kaikki tosiaan menee sit tehtävän tekemiseen sinne kännykkään, eikä sitten mee niitä omia juttujaan tekeen et se on se mistä pitää vähän kattoo ja pitää huolta (opettaja 4)
- (23) ehkä niinku sitä tällä hetkellä kännyköistä on vielä ehkä enemmän haittaa kun hyötyä. tai oppilaat ei tajua, et siitä vois olla hyötyä(...) nykyään sieltä löytyy sanastoja, sieltä löytyy sanasto oppimislejää ja muuta, mut ongelma on se, että oppilaat ei miellä, että se on työkalu. (...) ne mieltää et se on huviväline. et se et ne saa pysymään siinä, että nyt harjotellaan näitä sanoja tällä ohjelmalla (opettaja 2)
- (24) mä koitan sit aina vedota sitten siihen, että ymmärrähän itsekin, että se häiritsee sinun keskittymistä ja jos et pysty pysymään siitä laitteesta erossa, niin ole hyvä ja anna se minulle, minä voin laittaa sen lataukseen tuohon minun opettajanpöydälle. Ja jotku antaa sen ihan vapaaehtaisesti. tai puolipakolla mä sen tahon mut jos on tämmösiä kroonisia tapauksia (...) et jos sitä älyää käyttää oppimiseen niin ok toki. mut jos se on sit jotain muuta niin sit joskus täytyy kyllä niin sanotusti takavarikoida niitä. (opettaja 2)
- (25) mä toivon kovasti et tää tämmönen älypuhelin, semmonen hype niin menis vähä niinku ohi. et sitte tajuttas et se on vaan tavallinen työväline, jota vois käyttää hyödykskin. (opettaja 2)
- (26) ainut se tosi iso heikkous on se kirjotelma. et miten niinku ku sinne kirjotelmaan pitää pystyä kuitenkin tekee niitä merkintöjä ja antamaan palautetta niin sähköisesti se on tosi tosi hidasta klikata siihen oikeeseen kohtaan ja sinne jokaiselle sitten yrittää saaha ne oikeisiin paikkoihin ne. siinä menee aikaa. et siihen se ei (ole hyvä). en oo vielä ainakaan keksiny mitään ratkasua siihen että miten sais sähköisesti korjattua yhtä nopeesti kun käsin. (opettaja 5)
- (27) kirjottamisessahan tekstinkäsittelyohjelmat on ihan huippujuttuja. pystyy korjaamaan ja se on helppoa ja niin edelleen. mutta sitten se että mitä kautta se opettajalle laitetaan ja miten opettaja sen korjaa niin siinä on kyllä suuria ongelmia. olen kokeillut useita erilaisia alustoja ja ohjelmia joilla aineita korjataan ja kaikki tämänhetkiset mitä itse tiedän ovat valitettavasti paljon kömpelömpiä, hitaampia, hankalampia käyttää, kun se että paperille kynällä ihan normaaliin tapaan. eli siinä kyllä kehitystyötä on edelleen tehtävänä aika paljon. (opettaja 2)