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ESTONIAN SECONDARY SCHOOL STUDENTS' PERCEPTIONS AND EXPERIENCES REGARDING THE USE OF ICT IN LEARNING ENGLISH AS A FOREIGN LANGUAGE

MA thesis

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ABSTRACT

The advancement of technology is rapid and its use in education has become a norm. Yet it is crucial to be critical about using the technology when teaching and its effects on the students. This thesis aims to discover Estonian students' perceptions regarding the use of information and communication technology (ICT) tools in English as a Foreign Language (EFL) learning and compare them to the literature dealing with the subject.

The study consists of two main chapters. The first chapter explains the importance of the topic and covers the literature concerned with using ICT in EFL learning and teaching. Themes that are explored include the factors that influence teachers' use of ICT, the impacts ICT use has on students and how ICT can, is and should be effectively used in teaching EFL. ICT use is also examined in the context of Estonian education policy and Estonian teachers' and students' perceptions, as well as how ICT is used in EFL learning in Estonia. The second chapter of the thesis is empirical. The methodology, data analysis and results are described and discussed. Nine Estonian 12th grade students from Pärnu, Tartu and Tallinn were interviewed using semi-structured telephone and videoconference interviews.

The thesis found that students' perceptions regarding ICT use in EFL learning are mostly positive. The students found using ICT tools in EFL learning to be useful and the tools make the experience more enjoyable. Various examples of beneficial ICT use were highlighted by the students, with all of these exhibiting a purposeful use. Despite this, most students did not think that the use of ICT affected their learning outcomes. ICT was seen as a natural part of EFL learning. The negative aspects of ICT were mostly associated with the teacher's incompetence and technical difficulties, as well as some individual problems. ICT was seen as affecting all of the language skills, especially listening and speaking. No major contradictions were found between students' perceptions and literature dealing with the subject of the impact of ICT use on students.

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INTRODUCTION

There is a popular belief that, as technology plays an increasingly more substantial part in our daily lives, information and communication technology (ICT) should also be taken advantage of in educational settings. Schools in Estonia and abroad already have many technological tools that are used in teaching and learning, some of which, such as a projector and a computer, are nowadays taken for granted as the basic classroom equipment. The effects of ICT use in teaching have been studied for decades, but there are still, as with any pedagogical materials and methods, debates regarding the extent of benefits that ICT provides for teaching and learning. These discussions are not only justified by pedagogical critical discourse, but also, when electronic devices are put into a wider perspective and compared to pen and paper, ICT in education emerges as a novelty. This can be further exemplified by the fact that there are still active teachers who have taught in the past without any ICT.

According to Zuppo (2012), the definition of ICT can vary heavily depending on the context it is used in and applied to, but in general it can be summarised as "devices and infrastructures that facilitate the transfer of information through digital means" (Zuppo 2012: 13). Zuppo (2012: 20) explains further that studying ICT in a certain context requires an understanding of the relevant and possible uses of ICT in the field. Considering the aforementioned definition and the appropriate use, for the purposes of this study, ICT can be comprised of hardware, such as computers, projectors, smartboards, smartphones, tablets, and software, such as programs, applications and online environments.

The main broad factors influencing the use of ICT in education are the technology-related objectives presented in curricula, presence of ICT devices in schools, teachers' initiatives to use them, schools' administrational attitudes and leadership directions (Gil-Flores et al 2017: 442). While briefly touching on these aspects, the aim of the present thesis

is to study students' perspectives of the use of ICT in learning, which should also be considered as a factor that influences the use of ICT in education.

The ultimate goal of teaching can be considered as assisting students in acquiring, learning and processing new information. Teaching and learning happen as a result of the coeffect between the teacher and the learner via interaction and their roles as such are interdependent. This means that the opinions of both the teacher as well the student need to be taken into account for the exchange of teaching and learning to be successful. Cox and Marshal (2007: 61) explain that, in general, educational research can be hampered if effort is too narrowly put on the quantity of the knowledge acquired by learners, while leaving their cognitive processes aside. Implications as to the measurement of the effectiveness of ICT use in studying can be made when the type of ICT use and an understanding of its impact on learners' thinking are determined.

Nathenson and Henderson (1980: 13) describe how teachers are constantly using students' feedback to improve their teaching. This can happen during lessons through simply analysing the students' demeanour either consciously by, e.g., asking the class if they understood an explanation, or even subconsciously responding to the status of the class without thinking. With the purpose of always improving their teaching effectiveness, being mindful of students' feedback can be a constant source of inspiration for teachers while also benefiting the learners. Without resorting to external interpretations, gathering students' feedback should include direct involvement of the learners themselves.

Bill and Melinda Gates Foundation (2012: 2) explains that learners have awareness of the efficiency of their learning environment and it was found that student survey results can even be linked to predicting learning outcomes. Students' comments were deemed to be also more useful than classroom observations. Additionally, it was mentioned that the feedback can be used by teachers to improve themselves. Deaney et al (2003: 1) also state

that students are already at a young age capable of analysing their own learning process and can provide answers to what kind of pedagogical approaches benefit their learning. Furthermore, a study by Goodison (2002: 294) concluded that an analysis of even small-scale surveys of learner perceptions can be useful and taken into account when utilising ICT in education and determining its effective pedagogical uses. Although Goodison's study was conducted with primary school pupils, it demonstrates the potential value of student perception explorations.

Sander et al (2000: 309) compare education to a service where teachers are the providers and students the receivers of the service. Sander et al also point out that in such a scenario providing quality service depends on being aware of the customers' expectations and taking these into account, while acting less on assumptions. While the comparison of students to customers might be too straightforward and inaccurate in some respects, as well as in this case referring more specifically to higher education, the analogy illustrates objectively the logic of including the learners in the process of figuring out how to provide quality education.

The youth are often seen as avid enthusiasts and users of new technology; however, Walker and White (2013: 24) bring forward that too broad generalisations regarding the youth and their interest in and use of technology should not be made. Walker and White (2013: 23–24) argue that Marc Prensky's 2001 terms "digital natives" and "digital immigrants", which imply the belief that young people are more effective users of technology than older people, are in that sense not entirely accurate. According to Walker and White (2013: 23–24), the main factors motivating the effective use of new technology are need and interest, but these factors are not directly related to the user's age. Paniagua and Istance (2018: 62) also dismiss the notion of younger generations being expected to be digitally competent, even if they may be spending more time using technology. The authors

highlight the need to gain a thorough understanding of how the youth thinks for pedagogies to develop towards a learner-oriented direction. Walker and White (2013: 24) add that although teachers have the skills and expertise to exploit the technology for pedagogical purposes, students' experience and familiarity with a set of technology should not be ignored as they could potentially introduce exciting ways of using ICT.

In Estonian context, documented research involving qualitative student input is lacking. By exploring students' direct reactions on how ICT use affects them in EFL learning, this thesis aims to provide insights that could contribute to the successful use of ICT tools in EFL teaching. For this purpose, two research questions were put forward. The first question specifies the nature of the empirical research of the thesis and the second question deals with tying together theory and practice, aiming to compare students' experiences and perceptions with the aspects from literature dealing with the subject and highlighting the conformities and contradictions.

1. What are 12th grade students' experiences, perceptions and attitudes regarding the use of ICT tools in EFL learning?

2. How do Estonian 12th grade students' perceptions of ICT use in EFL correlate with the aspects that emerged from the literature dealing with the impact of ICT use on students?

The study is divided into two main chapters. The first chapter covers the literature dealing with the subject of ICT in language learning. Theoretical background regarding ICT use in language learning is explored, including factors that influence teachers' use of ICT and the impacts ICT use has on the students, as well as what effective ICT use incorporates. An overview will be given of the Estonian education policy's aims of digital competence,

Estonian teachers' and students' perceptions, and the use of ICT in EFL learning in Estonia. The second chapter consists of the methodology, data analysis and results of the empirical study. In the conclusion chapter the aims, literature dealing with the subject of ICT use in EFL learning and teaching, and empirical research will be summarised and further research suggestions and the limitations to the current thesis will be explained.

1. LITERATURE REVIEW

The following chapter gives an overview of literature regarding the use of ICT in language learning. The chapter includes information about the perspectives of the teachers, the positive and negative impacts ICT use has on the students and proceeds with a more narrow focus on how ICT can be used in language learning and EFL learning. Finally, the situation in Estonia is addressed from the aspects of ICT in education policy, students' and teachers' perspectives on the use of ICT in learning, and how ICT is used in EFL learning.

1.1 Factors That Influence Teachers' Use of ICT

Since teachers are ultimately the ones who decide whether to use ICT devices in their teaching or not, it is useful to understand what influences their decisions in the first place. Lindberg et al (2017: 123) describe how awareness of the pedagogical benefits of ICT use in teaching has an impact on the way teachers perceive ICT and how willing they are to use it in their teaching. Some researchers (Lloyd 2005: 4; Houcine 2011: 1; Gellerstedt et al 2018: 2) have argued that existing ICT on its own does not have any educational value without applying pedagogical and digital competence. Teachers have also reported that although ICT use can, for example, aid collegial communication and offer different ways to inspire students to study, the mere presence of the technology does not guarantee it will be used in these ways (Serbak 2018: 12). Serbak (2018: 15) also mentions that in the case of technology having a positive effect on learners, the ICT has been used innovatively and meaningfully. Such significant use can be attributed to the school's ICT related infrastructure, conceptions and staff. Paniagua and Istance (2018: 62) even warn that if ICT is misused, it could affect learning negatively.

As part of an instructional discourse, Diem (2006: 148) brings forward different scenarios where the use of ICT can have positive or negative consequences. The effects of using technology stem from the teacher's wider instructional perspectives and choices as also demonstrated by the aforementioned study by Lindberg et al (2017). In a conforming scenario, the approach to using technology is more limited to teacher-centred instruction and deprives the learners of critical thinking. In a more democratic scenario, technology is allowed to serve the purpose of enhancing learning and its use is more personal to the learner.

Pate (2016: 92) notes that as secondary school students require material that is relatable and relevant, technology is there to provide an abundance of information. In these instances learners can explore and analyse the information through the framework of their own personal conceptions. The results of Timmi's (2017) qualitative data provide similar information. Teachers feel ICT to be a useful tool in student motivation and engagement. They praise the open resources and quick feedback as well as the opportunity for the pupils to have a more individualised learning experience (Timmi 2017: 45).

As Li et al (2019: 33) explain, effective ICT use suggests EFL teachers need to be competent in both the knowledge of the use as well as the pedagogy involved. Koehler's and Mishra's (2009: 62) framework of technology, pedagogy, and content knowledge (TPACK) describes in further detail that appropriate exploitation of technology in teaching revolves around the aforementioned pedagogy and technology, as well as content of the subject which is taught. This means that the teacher must be aware of the relations between all of these three integral components when teaching. The possible key to successful use of ICT in education is understanding the theory and managing the practice of this technology-pedagogy-content trio (Koehler and Mishra 2009: 66). Timmi (2017: 42) compares her own and Luik et al's (2012) studies, concluding that both find the teachers' use of technology as a supplementary part of their teaching, rather than an objective in itself. This is a healthy

sign when put into the TPACK context in the sense that the technology does not supress content or pedagogy, but rather seems to interact with them. Zainal (2012) analysed teachers' integration of ICT in teaching English literature within the TPACK framework and concluded that teachers' TPACK incorporates addressing learners' needs technologically. Zainal noted that the use of technology was at times effective, but it could have been even more so, if the activities with technology use had promoted more learner collaboration. Zainal suggests that in order for teachers to develop their TPACK they should consider the value of technology use in meeting learner needs and use ICT in ways which supports learner interaction via creative methods (Zainal 2012: 237).

It is interesting to look at some of the problems which teachers perceived to arise from using ICT in teaching more than two decades ago (Cox et al 1999), because several highlighted issues conflict with the more recent research findings, indicating a development in some fields of ICT use in teaching. The drawbacks were mentioned as firstly pertaining to the accessibility of ICT, such as complicated software/hardware, expensive use, restricting the lesson content, lack of technical support, time and resources and secondly regarding the usefulness of ICT, which included negative factors such as more difficult and less fun and enjoyable lessons, with reduced learner motivation and impaired learning (Cox et al 1999).

Pate (2016: 92) mentions that the duty of the teacher in the context of using ICT is to help learners understand how to discover, use and examine the information by themselves through a critical perspective. Yunus et al (2014) write that in the future ICT could have an impact on the "the role of the teacher, the methods of instruction and the methods of assessment" (Yunus et al 2014: 769). Yunus et al suggest that the instructional role of the teacher might become more prominent, as opposed to a source of knowledge; classroom discussions could take place in online forums; and assessment could transform into a digital format (Yunus et al 2014: 769).

1.2 Impact of ICT Use on Students

According to Empirica (2006), 86% of European teachers, with little variance across individual countries, "state that pupils are more motivated and attentive when computers and the internet are used in class" (Empirica 2006: 39). Balanskat et al (2006) also mention that ICT increases students' motivation, thereby attracting more attention in class. Balanskat et al add that ICT can promote individualised learning, which improves students' responsibility for their studying and in such a way benefits "likewise academically strong and weak students and students with special needs" (Balanskat et al 2006: 55). In the qualitative section of Ohu's thesis (2013: 47) the teachers commented that ICT use is good for illustrating course materials, offering diversity for learners with mixed abilities, presenting authentic material which raises learners' interest and motivation. Teachers also stated that technology in general engages learners more than the traditional paper-based materials. Reduced face-to-face communication was mentioned as a negative effect and one teacher claimed that their learners experienced technology-related fatigue.

Leppik et al (2017: 39) found that the more experienced a teacher is, the more they tend to have a higher appreciation of using ICT in every lesson. However, the more experience the teacher has, the less they consider ICT use to increase students' learning motivation, activity and improve learning outcomes. Teachers agreed least with the fact that using ICT benefits classroom discipline. Some teachers also believed the use of ICT to be unhealthy for the students, because of the excessive use of computers and smart-devices outside of school.

Houcine (2011: 1–2) similarly describes the advantages of using ICT in foreign language teaching as having access to authentic materials and interesting, unordinary methods, being able to adapt teaching materials for different situations and learners, and

getting quick feedback. Additionally, Houcine (2011: 2) writes that ICT use has proven to benefit the learner in ways such as increased learner engagement, independent learning, emphasis on learner collaboration and improved learning outcomes. Kolbakova (2014: 21) adds increased student creativity and student-centred learning to the list of advantages.

However, there are also some detrimental effects of ICT on students. Zare-ee and Shekarey (2010) bring forward a possible disadvantage as isolation inducing over-individualised learning and less effective feedback. In their study, Yunus et al (2013) conclude a problem related to distracted class discipline and the "improper use of short forms as in the short messaging system (SMS)" in EFL learning (Yunus et al 2013: 7). Suggestions are also made to address these issues, for instance establishing appropriate rules prior to the use of ICT and restricting the options and functionality of school-owned computers, which could reduce available distractions. Using short forms in writing could be prevented by simply focusing more on proper student instruction and monitoring (Yunus et al 2013: 7).

Students and the viability of their personal practices in educational context are described by Paniagua and Istance (2018: 63–65) through four main themes, which are multimedia, multi-tasking, active learning and gaming environments, collaboration and social environments. The exploitation of multimedia, consisting of verbal as well as visual material, may conflict with the traditional text-based material used in schools, but integrating ICT into learning such as showing videos can satisfy the multimedia criteria. The habit of multi-tasking was found to present no benefits and can even be detrimental to performance. Video games were explained to be potentially effective when integrated in the right way. Collaboration and social environments including blogs, podcasts and social networking sites can enhance the learning experience.

Deaney et al (2003) studied secondary school students' perceptions of the use of ICT in school in different subjects, yielding insightful results. The students viewed ICT's

effectiveness in school as requiring focused use and proper skills to utilise. Although they expressed ways how technology assists them in schoolwork, they did not consider it to have a direct impact on learning itself. However, technology can be motivationally rewarding and "can energise pupil development and progress" (Deaney et al 2003: 17). The students saw teachers' role in ICT use to be supportive and important and concerns were highlighted regarding reduced interactions with teachers (Deaney et al 2003: 17–18).

1.3 ICT in Language Learning

Two descriptive terms used in the field of technology use in language learning are computer-assisted language learning (CALL) and technology enhanced language learning (TELL). Beatty has defined CALL as "any process in which a learner uses a computer and, as a result, improves his or her language" (Beatty 2010: 7). According to Kranthi (2017), TELL "deals with the impact of technology on teaching and learning a second language also called the L2" (Kranthi 2017: 31) and describes TELL as "not a teaching method but rather an approach that can be used alongside a teaching method to help teach" (Kranthi 2017: 31). Walker and White (2013) highlight the words "assisted" and "enhanced" and explain the difference between them: "we see technology not as assisting language learning, but as part of the environment in which language exists and is used" (Walker and White 2013: 9). They also mention that TELL is becoming the more commonly used term.

Walker and White (2013: 154–155) provide examples of instances in which technology can support language learning and learners. They describe how TELL can be used for repetition and memorisation and serve as a vast source of input, which can engage the learners to analyse and observe the language in more detail, as well as output for the learners to practice producing language and receive feedback. Social interaction is also brought forward involving collaborative projects such as wikis, podcasts, etc. According to

Walker and White (2013: 159), TELL resources can be especially useful in adapting coursebook material to meet students' needs and requirements and provide more personalised experiences, as well as helping to achieve the goals set by the coursebooks. Regarding the specific tools, Altun (2015) writes that "when, computer, internet, smart boards, cell phones, video games, music players etc. are used in the target language learning process, students' motivation and language awareness is raised" (Altun 2015: 23). In general, when aiming to evaluate the effectiveness of using ICT tools in teaching, it should be noted that the accuracy of the evaluation depends on the specificity of the ICT device in question as well as how it is used (Cox and Marshall 2007: 61).

According to Krashen's (1982) input hypothesis, acquiring a second language requires comprehensible input, meaning that the language acquirer needs to experience language that challenges their cognition, but the language is presented in a sufficiently relatable and understandable context. Krashen et al (2016) write about the use of technology in language acquisition. They describe the method of Language Experience, the effectiveness of which lies in its comprehensible and interesting input (Krashen et al 2016). Some of the technologically enhanced Language Experience learning activities include narrow listening, movie talk, VoiceThread stories, free voluntary surfing, blogging and ESLpod.

In their study, Ghanizadeh et al (2015: 83) concluded that, generally, the use of technology benefited students across all ages and genders regarding various language skills such as listening, writing, reading, grammar and vocabulary and ICT made learning EFL an enjoyable experience. Büyükahıska (2016) indicates that the role of ICT in foreign language teaching should be "an effective supplementary and a valuable complementary teaching tool" (Büyükahıska 2016: 75). This correlates with the ideas presented in Koehler and Mishra's (2009) TPACK framework. Furthermore, ICT is especially relevant in learning

EFL, because technology in general uses mostly the English language (Rahimi and Yadollahi 2011: 21), so teaching EFL using ICT can improve the students' digital competence and serve as practical examples of the importance of learning EFL.

Rahimi and Yadollahi (2011) studied 248 Iranian EFL teachers' use of ICT and the results indicated that teachers used technology mostly for developing listening skills (26%). Technology was also used in "teaching speaking (14.8%), vocabulary (14.4%), pronunciation (14.2%), reading (12%), grammar (9.6%), and writing (9.0%)" (Rahimi and Yadollahi 2011: 21). CD player was utilised most often for teaching listening and speaking and network applications, specifically e-mails and search engines, were used the most for reading and writing. Grammar, vocabulary and pronunciation was taught using most frequently network applications such as search engines, and also computer software, word processors and printer (Rahimi and Yadollahi 2011: 21).

1.3.1 Advantages of ICT Use in English as a Foreign Language Learning

From the literature that has been covered in the current thesis thus far, it can be concluded that generally, using ICT in EFL learning provides various advantages, which can be categorised into five aspects: authentic materials, adaption of materials, student-centred learning, student attitudes and effective assessment. The following subchapter gives an overview of these aspects via examples in EFL learning.

Authentic materials. Ghanizadeh et al (2015) have written that the use of materials such as video and the internet can "provide a natural and context-rich linguistic and cultural situation that enables the learners to access authentic target language that can reflect cultural changes [more] effectively than printed sources" (Ghanizadeh et al 2015: 74). Büyükahıska (2016) adds that ICT grants accessibility to a diverse spectrum of authentic mediums, more

specifically, e.g. daily news, which can enable practical environments and experiences with the language (Büyükahıska 2016: 75).

Adaption of materials. ICT offers an abundance of opportunities to adapt learning materials. Padurean and Margan (2009: 100) give examples of this, comparing books to computers, the former being more linear and static, unlike the latter, which is able to incorporate different visual and auditory materials each time, therefore adding also a novelty factor. Zainal (2012: 235) describes an instance where a teacher used ICT to support students' understanding of *The Drover's Wife* by Henry Lawson. The utilised CD-ROM provided students with more context than the regular text, supplementing it with "animation, narration and lines from the original texts" (Zainal 2012: 235). The teacher commented that the versatile presentation allowed the students to grasp the story in more depth because the language barrier had a lessened impact on their comprehension (Zainal 2012: 235).

Student-centred learning. Due to the adaptability, the use of ICT can facilitate student-centred learning approaches and increase student autonomy. Büyükahıska (2016) explains that technology can be used to cater to a variety of individual differences and interests among students by alternating between different instructional styles. Students have different opportunities and are able to select the method that is the most appropriate for them. Büyükahıska (2016: 75) also mentions that ICT enables student-centred learning without sacrificing the interaction between teachers and students. Yunus et al (2013) add that "the integration of ICT in the teaching of writing was said to encourage learners' independence and self-discovery skills like searching for educational related materials online (Yunus et al 2013: 7).

Student attitudes. According to Büyükahıska (2016: 75), the use of ICT in language learning has a positive effect on students' attitudes and motivation, because technological devices offer uniqueness which intrigues and engages them. Zainal (2012) elaborates with

specific examples of teachers using ICT in teaching English literature. A PowerPoint slide was used to induce collaborative answers to a question regarding the novel Dr Jekyll and Mr Hyde. A revision lesson of the same book was made more interesting by a story-related animated song, to which lyrics were also provided and the goal was to have students sing in English. A teacher commented that the use of ICT besides reading books was interesting for the students and increased their focus and another added that using a CD-ROM enriched the teaching methods and that multimedia aids students in memorising things (Zainal 2012: 235).

Effective assessment. Büyükahıska (2016) writes on the matter of assessment that using ICT teachers can devise materials to test and provide effective feedback for all of the student's language skills. Computers are also able to give direct and instant feedback and error correction with a customisable level of detail (Büyükahıska 2016: 75).

1.5 ICT Use in Estonian Education

The following subchapter summarises the situation in Estonian education policy, the perceptions of Estonian students and teachers regarding the use of ICT and the use of ICT in EFL learning in Estonia.

1.5.1 ICT Use in Estonian Education Policy

The topic of ICT use in education is very current in Estonia as the study by Leppik et al (2017: 12) states that one of the main goals of the Estonian education policy nowadays is the digital focus in lifelong learning. Both the Estonia's Lifelong Learning Strategy 2020 and the digital focus program 2016–2019 aim to assist all educational institutions in applying modern digital technology in teaching and learning in a more efficient and productive way, improve people's skills in digital technology and support the acquisition of the digital

competence. It is also expressed that the purposeful use of ICT in teaching benefits the quality of education by achieving more effective learning outcomes, the development of general competences and the treatment of different subject matters, allowing interdisciplinary integration and the individual growth of the learner. In addition, the 2011 national curriculum for Estonia's upper secondary level schools, which is still in effect today, states that the learning environment should be designed with the use of contemporary ICT study materials and tools in mind.

1.5.2 Estonian Students' and Teachers' Perceptions on the Use of ICT in Learning

The study by Leppik et al (2017: 37), which surveyed 11 224 Estonian general education school students, showed that the students prefer gaming related learning methods the most. Students highlighted Kahoot, LearningApps, Quizlet, Socrative and environments such as taskutark.ee, miksike.ee and Moodle. They commented that the tools were useful for revision and learning and induced a competitive aspect. It was concluded that the students in general enjoyed working with a computer and different kinds of programs because this interested them and they also found it useful.

Leppik et al's questionnaire (2017: 37) also included a section where teachers could present examples of using ICT in a way that the students find enjoyable. The aforementioned students' preferences correlated with teachers' comments, who reported that the students like apps and games and, excluding material for classes other than language learning, more specifically LearningApps website, Quizlet for vocabulary learning, Kahoot for making use of learned material, Bamboozle for revision, Quizizz games and educational videos, Moodle and Smartboard. The usefulness of these tools was described as the provision of quick feedback for the students.

According to Leppik et al (2017: 38), both Estonian teachers and students are commonly in favour of using technology in learning. They found the benefits to be increased excitement in learning, development of students' learning skills, better learning outcomes and simplified learning material. Teachers consider ICT use to improve the students' technological skills which are required in future employment. Interestingly, learners in the higher educational stages felt more that the use of ICT in learning has a beneficial effect on their grades, while learners in the lower stages highlighted greater learning motivation in relation with ICT use (Leppik et al 2017: 39).

A study by Deloitte et al (2019) regarding ICT in education shows that, when compared to the European average, Estonian students use smartphones for learning purposes much more, but personal tablets and laptops a little less than the international average (Deloitte et al 2019: 9). Estonian schools generally have stronger digital policy and support (Deloitte et al 2019: 10) and students have slightly higher confidence in their overall digital competence, except in content creation (Deloitte et al 2019: 11).

1.5.3 ICT Use in English as a Foreign Language Learning in Estonia

Previous research (e.g., Ohu 2013, Timmi 2017) suggests that Estonian English as a Foreign Language (EFL) teachers believe that the use of ICT tools in teaching is effective and the technological devices have a wide use among teachers. Ohu (2013: 47) found that the majority (77%) of the 117 Estonian EFL teachers who answered the questionnaires agreed that "computers and multimedia should be encouraged in English language teaching and testing". Karaseva et al (2013: 166) also indicate that Estonian humanities teachers in general very much emphasise the use of technology in their teaching.

According to Kolbakova (2014: 45), the percentage of Estonian EFL teachers that do not use any kind of ICT in their teaching is only 2%. Kolbakova's thesis (2014: 46–48) also

presents data regarding the activities for which Estonian EFL teachers use ICT. The most frequent use (41% of participants) involves listening activities that include "making and watching videos (including YouTube), music and songs, documentaries, films or extracts, listening tasks on CDs and DVDs, (BBC) news, ESL lab and web uploads, as well as podcasts" (Kolbakova 2014: 47). Presentations are also popular (26% of participants), for which Powerpoint and Google Docs are used to "introduce new material, revise a topic, present tasks, rules, etc. Sometimes they also have pupils make presentations on different topics and issues" (Kolbakova 2014: 47). The scarcer use includes writing activities, involving only blogging and activities to practice speaking skills, such as "describing pictures online, word clouds for retelling stories and Livemocha, which is a free language learning site" (Kolbakova 2014: 48). Grammar is taught using online grammar exercises and tests as well as YouTube material. ICT is further used for its entertainment value as a resource. Kolbakova (2014: 49) also compares Estonian teachers to other European countries' teachers, showing that foreign teachers use ICT a lot more for creative activities such as "creating an avatar, making animated films, dealing with different projects (e-Twinning, AEC-NET and other collaborative projects), creating a website, dramatizing and using Google Apps for group work) (Kolbakova 2014: 49).

Ultimately it can be concluded that the use of ICT in language learning has many positive aspects such as students' increased motivation and collaboration, supporting individualised learning, better learning outcomes, effective feedback, adaption of materials, authentic and diverse materials, and students find that using ICT makes learning more fun and enjoyable. While teachers are generally enthusiastic about using ICT, they should be careful not to get lost in the sea of opportunities that ICT provides and be mindful of the ways in which they can make the most effective use of the technological tools. Otherwise, the uninformed use of ICT cannot only withhold the potential benefits, but also have a

negative impact on the students and their learning process such as technology related fatigue, insufficient face-to-face communication and over-individualised learning, worse feedback and class discipline. In the subsequent chapter, the empirical study analyses nine Estonian 12th grade students' perceptions regarding ICT use in EFL learning and compares the perceptions to the literature reviewed in the current chapter.

2. EMPIRICAL STUDY

The following chapter presents the empirical study, describing the methodology and data analysis involved, as well as the results of the research. The purpose of this study was to gather students' perceptions about the use of ICT in EFL and also compare these insights with some of the aspects and issues highlighted in the literature dealing with the subject.

2.1 Methodology

Interviewing as a qualitative data collection method was chosen to explore the subjective topic more in depth. According to Rowley (2012), interviews are useful when: "The research objectives centre on understanding experiences, opinions, attitudes, values, and processes" (Rowley 2012: 262) and such conditions apply to the aims of the current thesis. Semi-structured interviews were constructed in order to guarantee that topics relative to the aims of the thesis were discussed, while leaving room to invite the interviewees into a broader and more natural self-expression. The interviewees' educational level was limited to secondary education in order to have a narrower and more focused study.

The interviews were initially planned as face-to-face meetings, but due to the COVID-19 pandemic and concurrent social distancing, alternative methods had to be utilised. Six interviews were conducted via telephone and for three interviews, video conferencing software such as Zoom and Skype were used for an increased rapport which was provided by visual context in addition to audio. The interviews took place in March and April 2020. While telephone interviews have been criticised of having worse rapport and absence of visual context (Drabble et al 2016: 2), the author of this thesis found video conferencing to inhibit rapport due to both the interviewer's as well as the interviewee's internet connection problems. Strategies, highlighted in the study by Drabble et al (2016: 7–

9), were used to ensure successful interviews, such as engaging in informal conversation to establish rapport, active listening including attentive tone, acknowledging vocalisations and follow-up questions. Telephone interviewing also has scheduling and logistical advantages, as well as, especially in the case of a pandemic, increased safety of interviewers and interviewees, and "perceived anonymity, increased privacy for respondents" (Drabble et al 2016: 2).

Prior to the interviews, the interviewees were informed of the aims of the thesis and the interviews, the estimated length of the interview and the anonymity of the interviewees. They were also given a brief background on the interviewer. Consent was asked to record the interview in order to facilitate data analysis and all interviewees agreed to this. Interviewees were also asked to state their age and were informed that this information will be disclosed in the thesis. The interviews were conducted in Estonian in order to avoid language barriers and to ensure the interviewees would be comfortable expressing themselves and not feel that their English skills are being assessed. One pilot interview was conducted with a member of the targeted educational group. This allowed the author of the thesis to reflect on the effectiveness of the interview to make necessary changes and add content as well as prepare the interviewer for the interviews. The questions for the interview were devised to answer research questions and were inspired by the literature relevant to the subject. The questions can be categorised into more background-probing (questions 1, 2, 4, and 8) and those that elicited opinions from the students (questions 3, 5, 6, 7, 9, 10, 11, 12, 13, 14). The questions are included in the Appendix. The interviews lasted approximately 16–25 minutes. One interviewee was later contacted via e-mail to provide an answer to an interview question that had been neglected by the interviewer in the original interview.

2.2 Participants

Nine Estonian 12th grade students were interviewed from six different Estonian schools in Pärnu, Tartu and Tallinn. Three interviewees were male and six female, with ages ranging between 18–19. None of the participants shared the same EFL teacher. Students from the 12th grade were selected as they could reflect on a wider time period of secondary education than 11th and 10th grade students. It was required that the subjects' teachers make use of at least some ICT in their EFL classes. Interviewees were recruited via contacting EFL teachers from 14 Estonian secondary education schools, common acquaintances and using the social networking website Facebook. Participants will be hereafter referred to as S1-9 (student 1-9).

2.3 Data analysis

The nine interviews were transcribed in order to make the data analysis process faster and more convenient. Subsequently the transcriptions were studied using the thematic analysis method and themes were devised and formed into subchapters to answer the research questions. In subchapters 2.4.1 and 2.4.2 topics emerged from the keywords that summarised the ideas representing students' perceptions of ICT use in learning EFL. The topics of subchapter 2.4.3 were derived from the different language skills that were mentioned by the students. In subchapter 2.4.4, the topics represent aspects related to ICT use in EFL learning which were mentioned in both the literature dealing with the subject as well as the interviewed students' answers.

The first three subchapters 2.4.1, 2.4.2 and 2.4.3 address the first research question "What are 12th grade students' experiences, perceptions and attitudes regarding the use of ICT tools in EFL learning?". The subchapter 2.4.4 deals with the second research question

"How do Estonian 12th grade students' perceptions of ICT use in EFL correlate with the aspects that emerged from the literature dealing with the impact of ICT use on students?".

The interview question no 9 "Please describe how the EFL subject is conducted via distance learning in the current national state of emergency. What are your opinions on that?" provided no data, because almost none of the participants were taking EFL lessons at the time of the interview due to the EFL study period having ended, or having taken a Cambridge Assessment English examination. Therefore, the topic was omitted from the data analysis.

2.4 Results

Subsequently, the results of the thematic analysis are presented. Students' positive and negative perceptions regarding the use of ICT in EFL learning are separately categorised; students' perceptions on how ICT use impacts their language skills are reported; students' perceptions are analysed through comparing them to aspects of literature dealing with the subject; and finally, all findings are discussed.

2.4.1 Students' Positive Perceptions Regarding the Use of ICT in EFL Learning

Generally, students perceived the use of ICT in EFL as positive, with all students highlighting at least some fun or beneficial use of the digital tools. Table 1 illustrates the topics, keywords that made up the topics and the number of students that mentioned the keywords. Most of the data were collected from the interview questions "What kind of ICT tools do you like being used the most and why?", "How does the use of ICT tools inspire and/or encourages you to study?" and "Can you highlight any other general positive or negative experiences regarding the use of ICT in EFL?".

Table 1. Students positive perceptions regarding the use of ICT in EFL learning

Topics	Keywords	Number of Students
ICT use makes lessons more fun	fun	5
	provides variety	5
	interesting	2
	motivating	2
	calm	1
ICT is useful	quick	3
	convenient	3
	quick feedback	3
	transparency	2
	access to additional material	2
	illustrative material	2
	trustworthiness	1
	ease of use	1
	educational	1
The frequency of using ICT in EFL learning	the use is balanced	6
	more use would be beneficial	3
	overuse	1

ICT use makes the lessons more fun. Five different students described the fun aspect of ICT use, five explained how it provides variety, two said it was interesting, one associated ICT use with motivation and one mentioned that ICT use had a calming effect.

Kahoot, Quizlet, YouTube and incorporating a projector, audio speakers and students' smartphones were all mentioned as tools that made EFL lessons more fun, enjoyable, exciting and interesting. Kahoot and Quizlet were described as providing respite from hard work, and the experience could also be humorous. Using Quizlet and Quizlet Live as a group activity resulted in a more cooperative communication and students came into contact with people they normally did not collaborate with. It was also explained by S9 that such group activities are captivating because of the competition aspect between the teams

and a time limit and, in addition, having a group of friends makes it very funny. S9 also mentioned that using YouTube provoked class discussions. S1 reported ICT use as motivating her and S7 believes that ICT-based learning in general might increase motivation for some students. Using ICT was also seen as providing variety. Instances such as a movie screening just once before the end of a study period was seen as a welcomed alternative. Although S2 said that textbooks are needed to bolster a working environment and S5 favoured studying with a pen and paper at home, both expressed that it was acceptable to use technology in the classroom to have different ways to study and the variety keeps things more fresh. Overall, using ICT in EFL learning was associated with a more interesting, fun and calming experience and using textbooks with a drier and more hectic method.

ICT is useful. Aspects related to the usefulness of ICT were more varied, with three students associating ICT's usefulness with overall quickness, three with convenience, three with quick feedback, two with clarity, two with illustrative material and individual students described ICT as increasing trustworthiness, having ease of use, being educational.

The most common adjectives attributed to ICT's usefulness by students are "quick" and "convenient". Quizlet was found to significantly speed up the vocabulary learning process by being able to mark the words that were either more difficult or easier to memorise and being able to use it via personal smartphone makes it also very convenient because students almost always have their smartphones nearby. The benefits to learning new words were also mentioned by S1 in a situation in which a teacher illustrated a word's contextual use via an online version of Oxford Dictionary, which was a quick solution to a class-wide dispute. The dictionary also enabled to listen to the pronunciation of a word and all of these transparency increasing functions made the learned information more trustworthy for the interviewed student. The efficient functioning of the smartboard was described as having the ability to quickly erase everything on the board and it was in general easy to use. S8 said

that using a projector for tests was convenient and environmentally friendly. S1, S2 and S5 commented that receiving feedback via computer is quick. A computer program used for preparing for an examination, the name of which S2 could not remember, made learning more convenient in the sense that the teacher could directly monitor the student's progress and grade the student. The use of a computer for completing gap-filling exercises and Kahoot was mentioned as providing quick feedback and Kahoot specifically was said to be transparent in the way that students can see their own as well as their classmates' results. Videos were said to be useful as illustrative materials and, for the class of S2 and S9, enabled access for more difficult material than that of their textbooks. The use of both videos as well as Kahoot and Quizlet were found to be educating and informative.

In general, students are used to having computers accompany their studying and they found it to be very positive that they are able to use the existing ICT tools, and the more efficient its use is, the better.

The frequency of using ICT in EFL learning. The interviewees were also asked the question "How frequently are the ICT tools used? Should they be used more often or less often?". Six students perceived the frequency of ICT use by their teacher to be balanced and satisfactory. Two students found that more frequent use would be beneficial and one said that while the use was balanced, more use would be advantageous. Only one student was concerned of the possible overuse of ICT. The balanced use was described as complementary utilisation, meaning it is not used during the whole lesson, in every lesson or most lessons. Using more ICT was attributed to technology enabling access to additional material, taking advantage of students' use of smartphones, and the importance of developing digital competence.

2.4.2 Students' Negative Perceptions Regarding the Use of ICT in EFL Learning

In comparison to positive perceptions, the students expressed fewer negative remarks on the use of ICT, with one student mentioning no downsides at all. Table 2 indicates the topics, keywords which depict certain opinions, and also the number of different students who mentioned these keywords. Most of the data in this subchapter were gathered from the interview questions "What kind of ICT tools do you dislike being used the most and why?" and "Can you highlight any other general positive or negative experiences regarding the use of ICT in EFL?".

Table 2. Students' negative perceptions regarding the use of ICT in EFL learning

Topics	**Keywords**	**Number of Students**
Teacher incompetence regarding the use of ICT	Teacher passiveness	2
	Insufficient use of ICT	1
	Teacher incompetence	1
Technical difficulties hindering the use of ICT	Technical difficulties	3
Other negative perceptions regarding the use of ICT	Unfairness	2
	Spelling	1
	Too childish	1
	Superficiality	1

Teacher incompetence regarding the use of ICT. Teacher incompetence as a negative aspect of ICT use included teacher passiveness and insufficient use of ICT. Two students were critical of teachers assuming a passive role when using ICT. S1 commented that she was aware of teachers who do not find it necessary to be in the classroom once videos or a movie is being shown, and she is glad that her class was not shown too many videos during which the teacher could "just sit in a corner". S5 described how many students find the materials difficult to learn and hence might need more help from the teacher than

ICT on its own can offer and teachers should overall always be aware of how ICT affects the students. S5 also found conducting tests with a computer to be inadequate in evaluating students' skills. Teacher incompetence was also described by S6 as the teacher not being able to handle the ICT and thereby causing disturbance in the lesson flow and quality which according to the student results in learners being distracted. The insufficient use of ICT was attributed to making little use of the available smartboard. In this case S4 felt that if such an expensive tool had been bought for the school, it should have been made more use of, because the teacher used it only briefly at the beginning and the students almost never got to use it.

Technical difficulties hindering the use of ICT. Technical difficulties involved the smartboard, the bad quality of an old CD player's speakers and loss of internet connection and access to materials. The smartboard issues were described by S3 and were related to unresponsiveness and hyperresponsiveness when writing on it; this was however not a frequent problem. The CD player itself was regarded as outdated and the audio from its speakers was difficult to hear properly due to the quality and placement of the CD player. The bad internet connection was highlighted as a general hypothetical, yet important, negative effect which would also hinder some students' ability to participate in the lesson. S7 described how some students take advantage of technical difficulties through making up excuses for not completing tasks and S7 found such misconduct unfair to other students.

Other negative perceptions regarding the use of ICT. Students also mentioned negative aspects regarding Kahoot and using the computer. The former was criticised of having an unfair score system where students who selected an answer quickly, even if it was the wrong answer, were awarded more points than those who took more time to answer a question, but had the correct answer. The student thought that this might be especially a problem for students of lower educational level, whose learning motivation might be

wrongfully influenced by the score system. Another student found that using Kahoot and ICT in general for playful purposes is too childish and was pleased that her class did not experience such utilisations. Writing on the computer was seen by S1 as making correctly spelling more difficult, because not being used to type on the computer leads to unusual mistakes which are also harder to notice. Trouble with paying attention to details on the computer was also brought forward by S2, who commented that the process of learning and reflecting on mistakes is more superficial when the computer is used.

2.4.3 Students' Perceptions Regarding the Effects of ICT Use on English Language Skills

The following subchapter gives an overview of the perceptions the students have on how the use of ICT affects their English language skills as well as students' explanations about how specific technological devices were used regarding the language skills. Table 3 indicates how many different students talked about the particular language skills. Most of the data analysed in this subchapter emerged from the interview question "How does the use of ICT tools affect your English language skills (speaking, listening, writing, reading)?".

Table 3. Students' perceptions regarding the effects of ICT use on English language skills

Topics	**Number of Students**
Listening	8
Speaking	7
Writing	5
Reading	4
Grammar	4
Vocabulary	1
Spelling	1

Listening. When talking about how they perceive the effects ICT use on their separate language skills, all but one student mentioned listening skills. S1, S2, S4 and S9 talked about how being able to listen to a native speaker using a computer and the internet, namely YouTube and TED Talks, is beneficial to learning EFL. This was perceived as positive for various reasons such as preparing the learner for the examination listening part and for going abroad and understanding the native speakers there, getting acquainted with authentic accents. S2 elaborated on this: "…I don't think there are many other options to develop listening skills, I mean, when we talk [in English] amongst each other, we are not native speakers, so we speak slower so that it is easier to understand".

Out-of-class ICT uses such as watching videos and TV series in English, listening to audiobooks and videoconferencing with programs such as Zoom and Google Meet were also described by S3 and S5, who found that these can develop listening skills.

Speaking. Students mentioned that their speaking skills were developed by performing slideshow presentations on the computer, as well as the aforementioned Zoom and Google Meet, with which the students can communicate with the teacher and other students and the teacher can correct the student's pronunciation, and also using ICT to get acquainted with the examination speaking part. S7 mentioned playing videogames as out-of-class activity, in which one can develop their speaking skills. S9 described how Skype could be used to communicate with foreigners, which could bolster learners' confidence to speak the language, which, according to her observations, a lot of students lack. S2 and S3 perceived ICT not to benefit speaking skills and instead found oral class discussions to be more efficient.

Writing. Writing essays and proposals on the computer was found to be positive and Google Docs was especially praised because of its useful functions such as the teacher being able to edit and comment the work which can provide a decent overview for the student.

Writing on the computer was also thought to be a faster and more productive process and the automatic correction system was described as developing writing skills because of the quick feedback such tool provides. However, writing on the computer also hindered S1's ability to spell and S3 and S4 stated that ICT does not affect writing skills simply because pen and paper are used to develop the skills.

Reading. Reading skills and the vocabulary in EFL learning were developed by searching for and reading English texts on the computer and thereby also preparing for the slideshow presentations. The subtitles of the TV shows that S3 watches in her leisure time benefit reading skills. In the case of S4 ICT was not used for reading.

Grammar. S9 highlighted Quizlet and similar applications as definitely developing grammar. S6 and S7 were unsure of ICT's benefits to grammar. S1 found that using the projector to do grammar exercises, whether orally or by copying text into notebook, was very annoying and she exhibited a strong opinion that grammar should not be taught in such a manner with a computer and, unless each student has a personal computer, she prefers to have things on paper when dealing with grammar to understand the content better.

2.4.4 Comparing Students' Perceptions and Literature Dealing With the Impact ICT Use Has on Students

The present subchapter analyses how the perceptions of the students who participated in this study correlate with the specific factors from the literature review regarding the impact of ICT use on students. Only the aspects from literature dealing with the subject that were also highlighted by the students are deemed by the author of the thesis as comparable. Table 4 illustrates the topics as aspects that emerged from literature dealing with the impacts ICT use has on students, as well as the number of students who had an opinion on the topic.

It can be argued that, e.g. if ICT provides variety to learning, it also improves learning motivation. Such connections however are set aside and the present comparative analysis focuses on specific examples highlighted by the students. This increases the coherence and objectiveness of the analysis.

Table 4. Comparing students' perceptions and literature dealing with the impact ICT use has on students

Topics	**Number of students**
Learning outcomes	9
Teacher's role as supporting and digitally competent	9
ICT makes learning enjoyable	8
Gaming related learning methods	6
Motivation and engagement	5
Authentic materials	5
Feedback and assessment	3
Student-centred learning	2
Learner collaboration	2
Illustrating course materials	2
ICT has no impact on learning	2

Learning outcomes. According to Houcine (2011: 2), ICT use improves learning outcomes, but on the other hand, Leppik et al (2017: 39) report that as teachers grow in experience, the less they believe that ICT use improves learning outcomes. Further, the use of ICT was perceived to impact grades more by higher educational stage students (Leppik et al 2017: 39). The interview question "How does the use of ICT tools affect your grades" focused specifically on this topic. Seven interviewees generally found that the use of ICT tools does not have an impact on their learning outcomes. Most students thought that while

ICT is very helpful for learning, overall it does not affect their grades at all or at least not negatively because they have always had good learning outcomes in EFL. S3 said that using ICT is so natural that making comparisons to not using ICT is difficult, so she is unsure of how ICT might affect her grades. S5 mentioned that computer tests are not reliable enough to evaluate and grade students' performances. Although S9 did not make any comparisons or clarifications, she did believe that the use of ICT has a direct impact on her excellent grades.

Teacher's role as supporting and digitally competent. In the study by Deaney et al (2003: 18) the students emphasised the role of the teacher as supporting, assisting and digitally competent. The current thesis' interview question "How do you evaluate your teacher's digital competence?" found that students unanimously rated their teachers' digital competence from adequate to very high. The students did however describe instances where teachers' conduct when using ICT was too passive or incompetent, which had a negative impact on learning. They also highlighted that ICT cannot replace teachers and the personal assistance of a teacher was seen as important to the use of ICT.

ICT makes learning enjoyable. According to Ghanizadeh et al (2015: 83), implementation of ICT made learning EFL more enjoyable for students. The current thesis found strong confirmation to this claim, with students mentioning that using ICT is fun, provides diversity, increases motivation and the technology involved learning is interesting and calming.

Gaming related learning methods. Estonian students are fond of gaming relating learning methods such as Kahoot, LearningApps, Quizlet etc. These tools were seen as interesting, fun and useful for learning in general and in particular for revision (Leppik et al 2017: 37). In the current study, gaming related activities such as Kahoot and Quizlet were overall, similarly to Leppik et al's (2017) study, seen as enjoyable, helpful and useful for

revision. However, S5 brought forward the flawed scoring system of Kahoot and S1 found the gaming related use of ICT to be inappropriate for EFL learning.

Motivation and engagement. This theme emerged from sources such as Balanskat et al (2006), Empirica (2006), Houcine (2011) and Büyükahıska (2016) which all claimed that ICT use increases students' motivation, engagement and attentiveness. Five students commented on this matter. Using the computer to explain the use of a particular word and write an essay were described to be engaging and motivating. S9 especially praised using Quizlet Live as an engaging group activity. S6 and S7 said that using ICT might be motivating for some students, e.g. those who have difficulties in learning EFL. However, S1 expressed concern that if individual computers were distributed, then students would be less productive and involved in studying. S6 and S7 found that the use of ICT has no motivational effect on them and it does not improve the engagement of students who do not wish to participate beforehand.

Authentic materials. According to Ghanizadeh et al (2015: 74) and Büyükahıska (2016: 75), learners can experience authentic cultural and linguistic material through videos, daily news, and the internet, which are more up to date and practical than printed sources. Four students talked about the importance of having an opportunity to listen to a real English native speaker. The benefits were described as being able to prepare better for the examination as well as for visiting the English-language countries and communicating with the native speakers. The students gave examples such as YouTube and TED Talks which are used for these purposes. Videogames as an out-of-class activity related to learning EFL was also mentioned by S4 and S7, since playing these online with other people can provide an authentic international experience for language use, especially English as the *lingua franca*. S9 thought that Skype could be used to contact and talk with foreigners.

Feedback and assessment. Although ICT can be used to test as well as provide direct and instant feedback and error correction for all language skills (Büyükahıska 2016: 75), ICT use can also result in less effective feedback (Zare-ee and Shekarey 2010). Three interviewed students also perceived the use of ICT tools as enabling quick feedback such as an automatic correction system for writing, doing activities with Kahoot and gap filling exercises on the computer. Kahoot, though, was criticised by S5 for its unfair, and therefore ineffective, feedback.

Student-centred learning. According to Kolbakova (2014: 21) and Büyükahıska (2016), the advantages ICT provides include student-centred learning. Büyükahıska (2016: 75) specifies that technology can be used to cater to different types of students and offer them more opportunities. S2 and S9 described how technology was utilised to meet the specific needs of their groups. S2 thought that the exercises in textbooks are relatively basic and explained how they had to watch videos or movies and do oral presentations which she found to develop her language skills a lot more. In S9's case, because the language skills of her class were above the supposed language level and most of the students wanted to do a Cambridge Assessment English examination, ICT tools such as Kahoot, YouTube, an online synonym dictionary and online textbooks were employed to learn more about the English culture and broaden vocabulary.

Learner collaboration. ICT use has also proven to emphasise learner collaboration (Houcine 2011: 2). The students interviewed in this study mentioned Quizlet and Quizlet Live as very useful for conducting fun group activities. These activities were described to increase collaboration between different students. Mostly though, students described ICT use as more individual than collaborative.

Illustrating course materials. The teachers examined in Ohu's (2013: 47) thesis reported that ICT can be used to illustrate course materials. The students who participated in

the current study had commented on this aspect scarcely. S5 found videos to serve as illustrative materials and in one case an online version of Oxford Dictionary was said to be useful for illustrating the use and pronunciation of lexical material, because it enabled S1 to become better acquainted with the vocabulary.

ICT has no impact on learning. The secondary school students studied by Deaney et al (2003: 17) reported that while technology does assist them in schoolwork, ICT does not directly impact their learning. In the current thesis, S5 and S6 also expressed that the use of ICT has no drastic effects on learning. More specifically, S5 felt that if other methods work, the use of ICT should not be imposed on teaching. S6 said that using ICT does not change the way a student learns or the effort they put into learning, but it might make some things easier to grasp.

2.5 Discussion of Results

The results of the empirical study show that students' positive perceptions regarding the use of ICT in EFL lessons outweigh their negative observations. While only two students commented that ICT use can increase learning motivation, it can be argued that the other positive aspects they associated with the use of ICT tools, such as providing variety, being interesting, having a calming effect and being useful in general, all contribute towards improved motivation to learn EFL.

Students also found the integration of ICT into learning to be fun. While "fun" can mean increased learning motivation and engagement, it can also lead to overexcitement, classroom discipline problems (Yunus et al 2013: 7) and ultimately unproductiveness. When this is to be expected, Yunus et al (2013: 7) suggest setting up rules and minimising the concurrent distractions before the technological device is introduced to combat unruly student behaviour. Although in the case of Yunus et al (2013) discipline problems did occur

in secondary school, none of the 12th grade students interviewed in this thesis commented that using ICT interfered classroom discipline. However, misuse and overexcitement regarding ICT tools might be a bigger problem with younger students.

The students saw the fact that ICT tools can make learning quicker and more convenient as positive, but these qualities can also embody some drawbacks. Quickness and convenience can hinder the substance of the learned material, because the student's learning method might be less thorough. Most students' descriptions of the beneficial quick and convenient use seem to be grounded; however, one student did report that studying with a computer is more superficial.

The students said that their language skills are benefited by hearing a native speaker speak the language in videos and out-of-class activities such as watching TV shows, using the internet and playing videogames. This can indeed familiarise the language learner with a more realistic and practical use of the target language. However, teachers should explain to their students about the different contexts and cultural backgrounds which contribute to the diverse language use and make sure the students approach the language use critically. This is to be done in order to avoid instances such as improper use of short forms as described by Yunus et al (2013: 7).

It is interesting to note that students' perceptions regarding ICT's effect on learning outcomes did not reflect Houcine's (2011) statement that learning outcomes are improved by ICT use. Students opinions on this matter are more in line with the perceptions of experienced teachers of Leppik et al's study (2017), who find that ICT does not have a direct effect on learning outcomes. The first possible explanation to this might be that since the students thought of ICT as a natural part of learning EFL, their ability to critically evaluate how ICT tools could impact their learning outcomes is hindered. The second implication is that the students' perceptions indicate that learning outcomes are in fact solely affected by

the students' general learning motivation and abilities combined with the teacher's teaching methods. The second implication seems contradictory however, because the students perceive ICT to have such positive impacts on learning. This could mean that the students have trouble understanding, at least partially, what influences their learning outcomes.

Overall, the interviewed students displayed a critical approach when talking about their perceptions on the subject and their answers regarding the positive aspects of ICT use in EFL learning often produced examples of particular instances of ICT use that was purposeful and meaningful to them. From this it can be concluded that indeed, as is evident from the work of Deaney et al (2003), Lloyd (2005), Koehler and Mishra (2009), Houcine (2011), Zainal (2012), Gellerstedt et al (2018) and Serbak (2018), effective ICT use needs to focus on supporting learner needs combined with content knowledge and technological competence. When comparing the students' perceptions and the literature dealing with the impact ICT use has on them, no major contradictions were found.

CONCLUSION

This thesis aimed to fill the gap in research of Estonian students' perspectives on the use of ICT in EFL learning and examine the use of ICT tools in EFL learning. Students' perceptions can reveal insights on how ICT impacts their learning process and these perceptions should be considered an important factor to influence the use of ICT tools in teaching. Cox and Marshal (2007: 61) highlight the importance of studying learners' cognitive processes and Deaney et al (2003: 1) explain that students are capable of approaching the way they learn critically. Two research questions were devised to narrow down the study's objectives:

1. What are 12th grade students' experiences, perceptions and attitudes regarding the use of ICT tools in EFL learning?

2. How do Estonian 12th grade students' perceptions of ICT use in EFL correlate with the aspects that emerged from the literature dealing with the impact of ICT use on students?

From the literature it can be gathered that solely having the technology available does not guarantee that it will be used to benefit learning. Effective ICT use in EFL learning requires teachers to be use ICT purposefully and be aware of the pedagogical effects of ICT use (Lloyd 2005: 4; Houcine 2011: 1; Gellerstedt et al 2018: 2; Serbak 2018: 12, 15). Koehler and Mishra (2009: 62) highlight that successful use of ICT in teaching integrates technology, pedagogy and content knowledge.

Generally, it is believed that ICT use in EFL learning is beneficial. When used effectively, the advantages of using ICT tools include more enjoyable lessons, increasing motivation and engagement, authentic and illustrative materials, adapting other materials

according to learners' needs, quick and useful feedback, student-centred and individualised learning and learner collaboration (Balanskat et al 2006; Empirica 2006: 39; Houcine 2011; Ohu 2013; Walker and White 2013; Kolbakova 2014; Altun 2015; Ghanizadeh et al 2015; Büyükahıska 2016; Leppik et al 2017). However, some research also suggests isolation inducing over-individualised learning, less effective feedback, distracted class discipline and technology related fatigue (Zare-ee and Shekarey 2010; Ohu 2013; Yunus et al 2013).

As indicated by the Estonia's Lifelong Learning Strategy 2020 and the digital focus program 2016–2019, Estonian education is in many ways technology-oriented, with an aim to improve students digital competence. Both Estonian teachers and students find that ICT should be used in EFL learning and teachers are prone to use the technology. (Ohu 2013; Kolbakova 2014; Leppik et al 2017).

To answer the research questions, an empirical study was conducted. Data were collected from nine 12th grade Estonian students from Pärnu, Tartu and Tallinn schools, using telephone and videoconference semi-structured interviews. None of the participants shared the same teacher.

The work presented in the current thesis entails some limitations. Although telephone and videoconferencing interviews have their advantages, the thesis author would have preferred to conduct the interviews face to face, but this was hindered by time constraints and ultimately by the social distancing rules due to the COVID-19 pandemic. Further, the research would have benefited from a wider participant sampling including rural schools, but the thesis author did not manage to get in touch with students from such schools.

The results of the thesis show that the students found using ICT in learning EFL fun as well as useful. According to the students, using ICT in EFL learning makes the lessons more fun because the tools make the experience more diverse and engaging. The usefulness of taking advantage of ICT was described as making the learning process quicker, more

convenient and enabling access to additional learning materials. The ICT tools that the students mentioned as being enjoyable and beneficial to EFL learning can be categorised into hardware and software. The hardware included computers, smartphones, projectors, audio speakers and smartboards. The software mentioned included Kahoot, Quizlet, YouTube, TED Talks, online EFL exercises, online dictionaries and the internet in general. The specific examples of effective ICT use highlighted by the students who participated in this study were various. Quizlet and Quizlet live were seen as useful for group activities. YouTube and TED Talks videos with audio speakers provoked discussions, illustrated learning materials and provided authentic materials. Students often commented on the projector, with which students were able to do slideshow presentations and teachers conducted tests. Online learning material was found to be helpful for preparing for examinations. The students were also mostly satisfied with the frequency of ICT use in their EFL lessons. Three students thought ICT should be used even more often and only one student worried that ICT might be overused.

The thesis also studied students' perceptions of how ICT use might affect their different language skills. Most students associated ICT use in EFL learning with developing listening and speaking skills. Writing, reading and grammar were brought forward less and individual students mentioned vocabulary and spelling. According to the students, the use of ICT was very important to hear native speakers of English, which improves listening and speaking skills. YouTube, TED Talks and videoconferencing tools such as Skype, Zoom and Google Meet were mentioned as devices that enabled listening to authentic language users. Writing was seen to be improved by the computer's automatic correction system. Reading and speaking skills were found to benefit from searching for and reading English texts online and doing related slideshow presentations. Quizlet and similar applications were found to be effective for exercising grammar.

When comparing students' perceptions and the literature dealing with the impact ICT use has on students, the following aspects were analysed: learning outcomes; teacher's role as supporting and digitally competent; ICT makes learning enjoyable; gaming related learning methods; motivation and engagement; authentic materials; feedback and assessment; student-centred learning; learner collaboration; illustrating materials; ICT has no impact on learning. It was further found that most students do not perceive ICT to affect their learning outcomes. Additionally, the students rated their teachers as highly digitally competent and emphasised that ICT cannot replace teachers and the personal assistance they are able to provide. The study found no major contradictions between the students' perceptions and the literature dealing with the subject.

The results of this study suggest that ICT in EFL learning should be used with a purpose. If the ICT tools compliment the content of the subject and benefit students' learning process by, e.g., making it quicker, easier, individualised and generally more effective, they should be used as complimentary materials. The frequency of ICT use should be balanced, while keeping in mind that students prefer more use to less use. Teachers should keep in mind that the use of ICT does not replace the personal presence and support they provide themselves and that students appreciate teachers who are still involved and attendant when using ICT.

Based on the conducted study, the author of this thesis suggests that further research can be beneficial. The current study focused more on the use of ICT tools in classroom, but outside classroom activities that involve learning EFL using ICT could prove to be an interesting and profound topic for exploration. The interviewed students mentioned some of these activities in which they engage during their leisure time, but detailed further discussions were avoided. As technology is rapidly evolving and new tools and devices are introduced, researching ICT use in EFL learning can provide different results in the timespan

of a few years. As with any learning material and tools, the use of ICT devices need to be approached critically and the impacts of their use should be constantly evaluated.

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APPENDIX: SEMI-STRUCTURED INTERVIEW QUESTIONS (IN ESTONIAN)

Intervjuuküsimused:

1. Milliseid info- ja kommunikatsioonitehnoloogilisi (ehk IKT ehk kõik mis seostub tehnoloogiaga nt arvuti, projektor, interaktiivne tahvel jne) vahendeid sinu inglise keele tundides kasutatakse? Kirjelda palun nii spetsiifiliselt kui oskad.
2. Mis eesmärgil neid vahendeid kasutatakse?
3. Kui tihti IKT vahendid kasutust leiavad? Kas seda võiks olla tihedamini või harvemini?
4. Kuidas hindad enda õpetaja digipädevust (kuidas ta tuleb tehnikaga ja tehnoloogiaga toime)?
5. Milliste IKT vahendite kasutamine sulle kõige rohkem meeldib? Miks?
6. Milliste IKT vahendite kasutamine sulle kõige vähem meeldib? Miks?
7. Kui sul on eelnevaid kogemusi teise õpetajaga, kes kasutas inglise keele õppes vähem/rohkem IKT vahendeid, siis kuidas neid kogemusi võrdleksid praeguse õppega?
8. Kas ja kuidas kasutad IKT vahendeid tunni väliselt, mis arendavad sinu inglise keele oskust?
9. Palun kirjelda kuidas praegu riiklikus eriolukorras inglise keele ainet kaugõppes läbi viiakse. Mida sellest arvad?
10. Kuidas IKT vahendite kasutamine mõjub sinu inglise keele osaoskustele (rääkimine, kuulamine, kirjutamine, lugemine)?

11. Kuidas IKT vahendite kasutamine innustab ja/või inspireerib sind õppetöös kaasa töötama?

12. Kuidas IKT vahendite kasutamine mõjub sinu hinnetele?

13. Kas oskad veel IKT vahendite kasutamisega inglise keele õppes mingeid üldiseid positiivseid või negatiivseid kogemusi välja tuua?

14. Kas sul on uusi ideid, kuidas võiks IKT vahendeid inglise keele õppes veelgi kasutada?

15. Kas tahaksid midagi lisada?

RESÜMEE

TARTU ÜLIKOOL
ANGLISTIKA OSAKOND

Hendrik Lõpp

Estonian Secondary School Students' Perceptions and Experiences Regarding the Use of ICT in Learning English as a Foreign Language

Eesti keskkooliõpilaste hoiakud ja kogemused seoses IKT kasutamisega inglise keele võõrkeelena õppes

Magistritöö
2020
Lehekülgede arv: 60

Tehnoloogia areng on kiire ja tehnoloogilisi vahendeid on hakatud ka hariduses üha laialdasemalt kasutama. Siiski tuleb suhtuda kriitiliselt info- ja kommunikatsioonitehnoloogia (IKT) vahendite õppetöös kasutamisesse. Käesoleva magistritöö eesmärgiks on empiirilise töö tulemusena välja selgitada Eesti õpilaste hoiakud ja arvamused IKT vahendite kasutamise kohta inglise keele õppes, võrreldes neid ka seotud kirjandusega.

Magistritöö koosneb kahest osast. Esimene osa selgitab teema olulisust ja toob välja asjakohase kirjanduse. Sealhulgas tutvustab töö tegureid, mis mõjutavad õpetajate IKT vahendite kasutamist; kuidas IKT kasutamine õpilastele mõjub; ning kuidas IKT vahendeid saab kasutada, kuidas kasutatakse ja kuidas neid peaks tõhusamalt kasutama. Töö keskendub ka Eesti hariduspoliitikas esile toodud digipädevuse edendamise eesmärkidele, Eesti õpetajate ja õpilaste hoiakutele, ning IKT kasutamisele inglise keele õppes Eestis. Töö teine osa on empiiriline, kirjeldades metoodikat, andmeanalüüsi, ja tulemusi. Empiiriline uurimus viidi läbi üheksa Eesti 12. klassi õpilasega Pärnu, Tartu ja Tallinna koolidest, kasutades poolstruktureeritud telefoni- ja videokõneintervjuusid.

Töö tulemuste kohaselt on õpilaste hoiakud inglise keele õppes IKT vahendite kasutamise suhtes enamasti positiivsed. Õpilaste arvates on IKT vahendite kasutamine inglise keele õppes kasulik ja tehnoloogia kasutamine muudab tunnid ka nauditavamaks. Õpilased tõid IKT vahendite kasutamise kasulikkuse kohta palju erinevaid näiteid, mida kõiki iseloomustab eesmärgipärane kasutus. Siiski ei arvanud enamik õpilasi, et IKT vahendite kasutamine nende õppetulemusi mõjutaks. Tehnoloogia kasutamist nähti õppetöös loomuliku osana. Negatiivsed hoiakud seoses IKT vahendite kasutamisega olid peamiselt seotud õpetaja ebapädevusega, tehniliste probleemidega, ja individuaalsete seisukohtadega. Õpilaste arvamuste kohaselt mõjutavad IKT vahendid kõiki keeleoskusi, eriti kuulamis- ja rääkimisoskust. Seoses IKT vahendite mõjuga õpilastele, ei leitud õpilaste ja kirjanduses esitatu vahel suuri erinevusi.

Märksõnad: inglise keele õpetamine, tehnoloogia, info- ja kommunikatsioonitehnoloogia (IKT), õpilaste arvamused

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