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**IMPLEMENTATION OF THE FLIPPED CLASSROOM TECHNIQUE IN AN
ENGLISH FOR SPECIFIC PURPOSES COURSE IN VOCATIONAL EDUCATION**

MA thesis

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ABSTRACT

The aim of this study is to research the effects of teaching vocabulary through the flipped classroom technique in an English for Specific Purposes classroom among upper-secondary vocational students. Considering the lack of research regarding the flipped classroom technique in the vocational education sector, the author of the present paper aims to contribute to the field by examining the students' perceptions of teaching vocabulary through the flipped classroom technique. Moreover, the strategies the students used to learn vocabulary for flipped lessons were examined alongside the possible advantages and challenges of the flipped model in a vocational setting.

The literature review part of the present thesis provides an overview of the students' possible learning preferences and previous studies regarding the flipped classroom technique in the vocational education sector. More precisely, the advantages and challenges of the technique are examined and the rationale for using the technique in an English for specific purposes course. The empirical part of the study describes the procedure, learning activities and results of the experiment carried out among upper-secondary vocational students. Both quantitative and qualitative data was collected through pre- and posttests to ascertain how much vocabulary was acquired. The students' perceptions were measured through a Likert-scale questionnaire and through semi-structured interviews.

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LIST OF ABBREVIATIONS

EFL- English as a foreign language

VET- Vocational education and training

TVETE - technical and vocational education and training

FE – Further education

TAFE – technical and further education

K-12 education- Grades 1-12 in the US and Canada

GE- General English

ESP- English for Specific Purposes

EAP- English for Academic Purposes

EOP- English for Occupational Purposes

EVP – English for Vocational Purposes

VESL – Vocational English as a second language

FC – The flipped classroom

L2 – Second language

1. INTRODUCTION

The Estonian national curriculum places a strong emphasis on learning foreign languages. In fact, students usually learn two or more foreign languages at school (Ministry of Education and Research 2020). In vocational education, however, students are required to learn English related to their future occupation, that is, English for specific purposes (hereinafter ESP) alongside General English. Learning ESP has proven to be challenging for students, especially for students with limited English proficiency.

Understandably, such students might struggle to learn specific vocabulary related to their future profession without a proper foundation in General English. Consequently, this could be demotivating for students. However, motivation is an integral part of learning foreign languages. Studies have shown that the number of students leaving vocational education institutions early is high (CEDEFOP 2016), which is also a major concern for students in Tartu Vocational Education Centre where the present study was conducted. In fact, the initial sample size for the present study was 17 students but meanwhile, six students either dropped out of the school or decided to go on academic leave. Castilla, Villaba and Duarte (2018) propose that innovative teaching techniques could motivate students and, as a result, lower the number of students leaving the education system early. In addition, the authors advise teachers to modernize the teaching of ESP through videos and active learning activities such as “role-plays, presentations, problem-solving” to motivate students partaking in ESP courses (Ibrahim 2010: 203).

Contrary to traditional teaching, this technique is based on the idea that the order of learning is flipped. This means that the lecture-part, or teacher-centered teaching, is moved outside the classroom, for example via videos. Thus, students come to class prepared, which enables the teacher to dedicate more time in the classroom to practical and active learning

activities. In foreign language classrooms, such activities are essential to practice the language and as a result, become a more confident and fluent communicator.

Students' learning preferences have changed due to advances in technology. Although the Millennial students' (people born from 1980 to 2000) (Smith & Nichols 2015: 39) learning preferences have been extensively studied, there is a new cohort of students joining the workforce. These students are called the *Generation Z*, encompassing students born between 1995 and 2010 (Rothman 2016). The following section gives an overview of the learning preferences of the *Generation Z* and ways in which the flipped classroom technique could benefit the process of learning for them.

1.1 Generation Z as learners

An essential element of designing a successful EFL course is the teacher's ability to take into account the needs and characteristics of the students. Most students at Tartu Vocational Education Centre belong to the cohort known as *Generation Z*, also known as *Gen Z*, digital natives, *Generation 2020*, *Generation I*, *Gen Tech*, *Gen Wii*, *Screensters*, and *Zeds* (Rothman 2016: 1; Singh and Dangmei 2016: 2; Seemiller and Grace 2017: 2). Since the students of generation Z are born from 1995 through 2010, it is a cohort greatly influenced by technology and digital tools (Singh and Dangmei 2016: 2). Indeed, the students in this generation have been surrounded by technology and digital tools since birth.

There are scholars who claim that dividing students into certain generations is stereotypical and academically not justified. There is no doubt that all students are different and unique; however, generational research has potential to provide teachers with a better overview of the possible overarching characteristics and learning preferences of their students. To put it another way, it can help teachers plan courses that are more up-to-date, suitable and relevant for the students.

In recent years, more research has been done into the students of Generation Z, their possible learning preferences, and the ways in which teachers could adapt and improve teaching methods and learning environments. Researchers have noted that students in this cohort are likely to possess some common characteristics as learners. For instance, a crucial factor that influences the way these digital natives prefer to learn is that the brains of Gen Zs have become more responsive to “visual imagery” (Rothman 2016: 2). For this reason, the “part of the brain responsible for visual ability is far more developed” (ibid: 2). Thus, according to some authors, the traditional lecture format is often not the preferred way of learning and visual learning has been found to be more beneficial for this age group. However, it is important to note that the topic of learning styles is a controversial topic among scholars and some researchers have challenged the concept of learning styles. Riener and Willingham (2010) assert that even though learning styles exist and students have different preferences when it comes to learning, there is not enough scientific evidence to support the fact that students’ academic performance indeed improves when learning in the favorable mode. Cuevas (2015) reviewed literature in relation to learning styles post-2009 and reached the conclusion that there is a lack of objective findings that learning styles help students achieve better results.

Seemiller and Grace (2017: 2) have conducted one of the most sophisticated studies on this topic, researching “more than 750 students from 15 institutions of varying sizes” to get an overview of this generation’s attitudes related to an array of topics, learning being one of them. The scholars assert that although Gen Z students seem to have some characteristics in common with Millennials, they can still form a completely different cohort with distinguishable traits. As for learning preferences, research shows that students in this cohort are likely to be “observers” and often prefer watching others do the work first before putting the knowledge into practice. While Rotham (2016: 4) implies that Gen Z students would rather work in “small groups or teams” because of their collaborative nature, other authors dispute this view by

revealing that the individual essence of technology has changed the students' educational preferences.

It has been argued that they tend to enjoy obtaining knowledge independently, for example, by “reading an article or an eBook, completing an online module, or watching an instructional video” (Seemiller & Grace 2017: 3). In fact, 85% of students have done “research online to complete an assignment” individually (ibid: 7). Seemiller and Grace (2017) conclude that this preference for individual learning is a notable distinction from the Millennials, who tend to enjoy working in groups.

Carter (2018) agrees with both the above-mentioned schools of thought, adding that a suitable learning environment for this group gives students the chance to work both individually as well as part of a group. Carter (2018) shares similar views with Seemiller and Grace (2017) in that doing group assignments without the opportunity to work independently could discourage them. Some authors advise teachers and instructors to be more mindful when planning group activities in the classroom. The students in this cohort might expect to know their individual roles and duties in solving a particular issue. Therefore, teachers should “carefully explain the rationale for working in groups” (Mohr & Mohr 2017: 90).

According to Rotham (2016), 43% of teenagers are keen on learning on the Internet instead of using printed handouts or books. Moreover, the author suggests delivering complex information in smaller bits due to the fleeting student attention span, which is the result of “task-switching” and being flooded with short bursts of information from social media. Furthermore, learners in this cohort seem to have a need for “instant gratification and speed” (Rotham 2016: 3). They are able to find answers online quickly but often find it difficult to analyze issues on a deeper level. It has been found that Gen Z students “prefer flipped courses” and depend on YouTube as “a primary source of self-instruction” (Seemiller & Grace 2016, cited in Mohr & Mohr 2017: 88).

To sum up, it can be claimed that the students of Generation Z are inclined to learn visually and the sage-on-the-stage approach is generally not favored by students in this group. Another predominant feature of these digital natives is their individual outlook on learning, which sets them apart from Millennials. According to literature, Gen Zs prefer to work individually before tackling issues in groups. The teacher should be able to explain the importance of group work and their individual responsibilities in groups, which will lead to a solution of a problem or a project. Finally, since these students are likely to be avid Internet users, they are often interested in learning on the Internet. However, due to the speed and short bursts of information from various social media platforms, Gen Zs might struggle with the task of focusing on and analyzing complex issues.

1.2 Generation Z and the Flipped Classroom Technique

Since it can be claimed that the learning preferences of digital natives have changed, teachers should keep this in mind when designing courses. As mentioned above, some researchers speculate that blended or flipped learning could be beneficial for learners of that age range (Seemiller & Grace 2016, cited in Mohr & Mohr 2017: 88).

Chemistry teachers Jonathan Bergmann and Aaron Sams laid the groundwork for the flipped or “inverted” classroom in 2008. In an attempt to find ways absent students could catch up with studies, they decided to film their lessons and upload them online. They realized that the method was useful for both students who had missed the classes as well as for the students who had been present. The underlying principle of the flipped classroom lies in “flipping the common instructional approach” (Tucker 2012: 82), meaning that the content traditionally considered homework, is done in the classroom, and the lecture part, or explicit teaching, is delivered outside the physical classroom.

Language teachers could utilize this technique by teaching theoretical concepts outside the classroom. This, in turn, enables the teacher to spend more time on communicative activities in the classroom. However, Tucker's definition of the flipped classroom needs to be discussed further. According to the previously mentioned definition, merely flipping the order of learning would automatically equate to the flipped classroom technique, which is not the case.

Researchers have developed the definition of the flipped classroom technique further, adding that the technique is grounded in theories of active learning and is essentially made up of two parts: "interactive group learning activities inside the classroom, and direct computer-based individual instruction outside the classroom." The flipped classroom technique is based on the principle that the activities that require human interaction, such as "interactive classroom activities based on student-centered learning theories" are to be done in the classroom and "explicit instruction methods which are teacher-centered" are automated through computer technology (Bishop & Verleger 2013: 4).

Active learning is based on the idea that students learn when they are "cognitively active" instead of "passively listening" in classrooms (Edwards et al 2011; Veenmann 2011, cited in Eggen & Kauchak 2016: 47). Examples of such strategies include "guided discovery, problem-solving, and hands-on learning" (Eggen & Kauchak: 65). Constructivism is at the heart of active learning. Vygotski (1978) believed that knowledge is constructed through communication and experiences. According to his theories, acquiring new knowledge takes place through social interaction, and learning occurs in the zone of proximal development. This means that on one hand, a student is capable of completing difficult tasks if sufficient support is provided by a more competent person. On the other hand, if the task is too demanding, learning cannot take place and the students will be unable to acquire new knowledge. In education, such assistance is called scaffolding, which can be done through "modelling, verbalizing one's thinking, taking students through problems and asking them questions, instructional aids and using prompts as

well as cues.” (Eggen & Kauchak 2016: 81). According to the input hypotheses, one of the prerequisites for moving from one’s current language competence to another is understanding input that is “a little beyond” where one is now (Krashen 1982: 20-21). Therefore, the learning activities in foreign language classrooms should create a “learning gap” whereby students need to make an effort to acquire new information. Conversely, learning activities should not be too demanding because this can cause too much discomfort, resulting in a situation where new information will not be acquired by the student.

The flipped classroom technique has also gained attention due to its student-centered and flexible approach. Students can choose the time and place for learning. Additionally, students can “pause, rewind, and replay the videos.” Therefore, learners gain a deeper understanding of the material through “repeated exposure to the learning materials” (Hsieh, Wu & Marek 2017: 2).

Student-centered learning is a broad term based on theories of Piaget (1961) and Vygotsky (1978) (Bishop & Verleger 2013: 5). In its essence, student-centered learning denotes an approach in which students actively take part in the process of learning by taking more responsibility for learning. For instance, students can do that by working through the information that the teacher has not directly presented to the students in the class. Some examples include “open-ended problems, simulations and role-plays” (Felder & Brent 1996: 1). Felder & Brent (1996) claim that such learning activities encourage creativity, imagination and cooperation.

This flipped classroom technique might be suitable for Gen Z students because they can utilize their interest in visual learning. Additionally, the technique combines individual as well as collaborative learning activities, which is highly suitable for this cohort of learners according to literature. Since students in this group often use YouTube to gain information and tend to

have issues with solving complex problems, learning in this way might give the teacher and the students more time in the classroom for problem-solving and student-centered learning activities.

1.3 Thesis overview

Although the Flipped Classroom technique has been widely researched in the field of higher education, research regarding the implementation of the model in vocational schools has remained scarce. The aim of this thesis is to research the effects of teaching vocabulary through the flipped classroom technique in an ESP classroom. The study was conducted among upper-secondary vocational students. The usefulness of the technique was measured by the students' perceptions of it. It is common practice in vocational schools for students of different language levels to learn together in large groups, which is one of the greatest challenges for EFL teachers. Some authors assert that the flipped classroom model "benefits diverse learners" for its "student-centered approach" (Cronin, Cerbian & Requejo 2018: 17). Thus, I will more specifically focus on how a group of mixed-level EFL students perceives the technique. The research also homes in on the possible advantages and challenges of the technique. Based on the purpose of this MA thesis, the research questions are the following:

- 1) What are the students' overall perceptions of the flipped classroom technique?
- 2) Which strategies did the students use to learn the key vocabulary before coming to class?
- 3) What kind of advantages and challenges does this technique have in a vocational setting according to the students?

The second chapter more specifically discusses the implementation, benefits and concerns of the flipped classroom technique in the context of vocational education. In addition, the rationale for using the technique in an ESP course will also be discussed. In the third chapter, the results of the empirical study will be analyzed.

The present research examines the implementation of the flipped classroom technique in an ESP course among 11 upper-secondary vocational students aged 16-21 studying to become secretarial professionals. Three videos and three 90-minute flipped lessons were created for this thesis to teach vocabulary related to the students' future occupation. The course lasted for two months from December 2019 to February 2020. Pre- tests and post-tests were administered for each topic to measure how much of the vocabulary was acquired. The aim of the research is to examine the students' perceptions of teaching vocabulary through the flipped classroom model and the strategies that students used to learn vocabulary before class. Lastly, the author attempts to explore the possible advantages and disadvantages of the flipped classroom technique in a vocational school from the students' perspective. The overall perceptions of the course were measured through a Likert-scale questionnaire. Semi-structured interviews were conducted to gain a deeper understanding of the perceptions and to collect data regarding the strategies and the advantages and disadvantages of the flipped classroom technique.

2. The flipped classroom technique in vocational education

Vocational education lays the groundwork for students to join the workforce. It is challenging to define vocational education as it differs from country to country. Karmel (2010) agrees with this and suggests this is part of the reason it is difficult to comprehend the essence of vocational education and training (VET). Therefore, the sector is widely misunderstood and inadequately defined. Additionally, an abundance of terms is used across the world to describe vocational education. In Estonia, the acronym VET is used. UNESCO uses the acronym TVET, which stands for technical and vocational education and training. In the UK, further education (FE) is the term used to describe the principle and in Australia, it is called technical and further education (TAFE) (Karmel 2010: 229).

Although the organizational structures of vocational education differ from country to country, the underlying concept of vocational education is similar in all of them. Vocational education is the “provision of materials, activities and teaching that is designed to prepare people to function, at a specified level, in specific roles in the context of (usually) paid employment” (Lucas, Claxton & Webster 2010, cited in Lucas, Claxton & Spencer 2012: 21). In order to offer high-quality education that prepares students for their career, labor market trends of the future must be taken into account. The Advisory Committee on Vocational Training released its vision for VET by 2030 whereby it is stated that “new, technology-based educational tools and programmes” should be used to keep up with “relevant labor market trends.” Additionally, there is an increasing need for “innovation and efficiency in VET” (Advisory Committee on Vocational training 2018: 5-6). Furthermore, the vision states the importance of a “learner-centered” approach and “flexible” learning opportunities based on “modern learning environments, including work-based learning and technology” (Advisory Committee on Vocational training 2018: 7).

The general basis for adapting the flipped classroom technique in vocational education can be found in a comprehensive report on vocational pedagogy in the UK. In 2012, the authors acknowledged that further research into the flipped classroom was necessary to get a better overview of how the flipped classroom technique could be used in the context of vocational education (Lucas, Claxton & Spencer 2012: 11). The authors also urged that “high-quality vocational education” should be a mix of various methods that are “hands-on, practical, and experimental,” involving “feedback and reflection” (Lucas, Claxton & Spencer 2012: 9). Thus, the flipped model could be especially beneficial in vocational schools because the teacher would be able to devote more in-class time to various practical, hands-on learning activities. However, since 2012, not much research has been done into ways the flipped classroom technique (hereinafter FC) could be implemented in vocational schools.

Little (2015) implies that the lack of research regarding the flipped classroom technique in the vocational education sector could be caused by the absence “of a clearly identifiable research culture within the further education sector” (hereinafter FE). The sector might be under-represented due to workloads that hold the teachers back from conducting research. Although teachers in FE are hired to teach, they are often asked to “perform administrative roles” (Robson 1998, cited in Little 2015: 269). Some authors propose that since further education has been denoted as being “less prestigious than, and a poor relation of higher education, perhaps due to a perceived lack of research culture” (Schuller et al. 199; Ollin, cited in Little 2015: 269).

Some progress has been made in the field of the flipped classroom technique in vocational education in recent years. In 2015, a small-scale case study was conducted at a further education institution among nine students, aged 17-19, with the aim to discover whether the technique improves the students’ academic performance (Little 2015: 266). The study concluded that flipping the classroom did indeed result in better results compared to another

unit, which was taught in a traditional manner. However, the results cannot be generalized due to the limited sample size (Little 2015: 274).

In 2018, a research project was conducted among 625 vocational education teachers from Spain, Hungary and the Czech Republic to examine which factors influence the implementation of the flipped classroom model among teachers (Villalba, Castilla, Redondo-Duarte 2018: 441-442). It was found that the teachers who participated in the study possessed the necessary ICT skills to apply FC and overall, the teachers in the study had a positive attitude towards the implementation of the technique. However, it was also noted that the teachers expressed the need for further training in the areas of designing class activities and “the integration of work done at home and in class” (Villalba, Castilla & Redondo-Duarte 2018: 459).

The findings of the study suggest that some guidelines in terms of how to plan and design successful FC are necessary for vocational teachers, which is understandable as designing a FC course might be more time consuming compared to a regular course. The authors further state that since the technique is aimed at practice and “learning by doing,” it is especially applicable to vocational education (Villalba, Castilla & Redondo-Duarte 2018: 458-459).

2.1 Benefits and drawbacks of the flipped classroom in VET

According to literature, the main claim from proponents of this technique is that since learners in vocational education learn through practice, implementing the flipped classroom technique allows teachers to use more in-class time to develop relevant “workplace” skills (Cronin, Cerbian & Requejo 2018: 17; Villalba, Castilla & Redondo-Duarte 2018: 443).

Conversely, it is argued that flipping the classroom allows the teacher to devote more in-class time developing higher-level skills and the model promotes active learning (Santikarn,

Wichadee 2018: 123). In order to define higher-level skills, it is important to discuss Bloom's Taxonomy. Bloom (1956) categorized six dimensions of cognitive practices for learning new information, which were redefined in the 1990s by Lorin Anderson. The revised categories are as follows: remembering, understanding, applying, analyzing, evaluating and creating (Overbaugh & Schultz 1994: 1). A pivotal part in language learning to move from lower-level skills such as remembering and understanding to higher-level skills such as applying, analyzing, evaluating and creating, which are cognitively more demanding. It is a great advantage for students if these more cognitively demanding skills can be developed in class, where instructor's assistance is available when needed.

The need for innovation and active learning is especially important to motivate students in vocational schools, as the number of dropouts is high. Villalba, Castilla, Redondo-Duarte (2018) support this view, adding that such innovative teaching strategies can enhance vocational education and make the students more eager to learn, thus decreasing the number of students who drop out of school.

As mentioned above, one of the challenges for teachers in vocational schools is teaching mixed-ability classes. Some authors claim that flipping the classroom works especially well in such situations. It has been proven that the technique is especially beneficial for "low achievers." Bhagat, Chang and Chang (2016) published a study, which investigated the effects of teaching mathematics to students of different levels using the flipped classroom technique. The study was conducted among high school students and it was concluded that the weakest students gained the most from the flipped model because the teacher was able to provide more attention to such students during class (Bhagat, Chang & Chang 2016: 130). However, at the time of writing, no empirical studies on the topic of different achievement levels in the context of English and the effectiveness of the flipped classroom technique have been published.

One of the challenges in vocational education is the limited time allocated to teach English as the focus is on subjects related to students' future occupation and apprenticeships. For example, in Tartu Vocational Education Centre, upper secondary vocational students only receive 30 academic contact hours of general English instruction per school year. Little (2015) identifies a similar issue in his study of FC in further education in the UK by mentioning that the time to teach a unit was limited. Little (2015: 272) points out that moving the lecture-time outside the physical classroom, led to a more productive use of in-class time. Therefore, it can be concluded that the technique could save time, which is especially beneficial in vocational settings since time to teach English is often insufficient.

Despite the above-mentioned benefits of this technique in vocational education, there are still possible challenges of the flipped classroom model. The benefits of the FC have been extensively researched, especially in the field of higher education. However, the drawbacks of the technique should also be discussed. In 2017, Lo and Hew published a critical review of the technique. The research paper focuses on the flipped classroom studies in K-12 education, especially the possible challenges of the flipped classroom technique. Fifteen empirical studies were analyzed in this research paper, out of which thirteen were conducted in high school or secondary school (Lo & Hew 2017: 7). It is possible that some of the drawbacks mentioned below can be similar among upper secondary vocational students being analyzed in the present research.

Some studies concluded that students held negative views about this technique, stating that watching videos was tedious, the process took too long and it was deemed not helpful (Kettle 2013: 594, cited in Lo & Hew 2017: 10). Furthermore, some students were dissatisfied with not being able to ask questions right away when watching video lessons (Bhagat et al. 2016: 141, cited in Lo & Hew 2017: 10). Furthermore, some studies note that “pre-class

activities were time-consuming and overwhelmed the students' time at home" (Schultz et al. 2014, Snyder et al 2014, Wang 2016, cited in Lo & Hew 2017: 11).

From the teachers' standpoint, some admit that finding the necessary videos for the students is difficult at times, and producing their own videos is "extremely time-consuming." (Chen 2016: 418, cited in Lo & Hew 2017: 11). Kvashina and Martynko (2016) mention in their study that creating flipped content can indeed be burdensome for the teachers for it requires a decent level of IT skills because the students' diverse needs must be taken into account and the content should be motivating for students, which is not an easy task for all teachers.

Lo and Hen (2017) concluded that most of the challenges concerning the implementation of the flipped classroom in K-12 education are similar to issues in higher education. However, K-12 students might need more instruction as to how to work effectively in groups (Grypp and Luebeck 2015, cited in Lo & Hew 2017: 13).

Furthermore, it is possible that it is more difficult for K-12 teachers to make sure that students learn outside the classroom (Lo & Hew 2017: 13). Little (2015) agrees with this by stating that one of the issues is that students do not watch the video lectures nor prepare for the class. In his study, the students were obliged to fill in notebooks before coming to class and the work was "checked at the beginning of each class to ensure that learners had watched the required videos" (Little 2015: 272). As opposed to adult learners, who are usually motivated to learn, one of the most challenging parts of implementing the technique in a vocational school is ensuring that the students complete the work at home. In the present study, the students were required to complete a test before coming to class to ensure that the students are prepared for in-class activities.

2.2 The rationale for using the flipped classroom technique in an ESP course

In vocational schools, EFL teachers are expected to teach GE (General English) as well as ESP (English for specific purposes) courses. The difference between the two is that English for specific purposes focuses on teaching language in the context of the students' "workplaces" or help students prepare for their future jobs where "English serves as a medium of communication" (Widodo 2016: 277). ESP is further divided into separate subgroups: English for Academic Purposes (EAP), which relates to the learners' "academic study needs" and English for Occupational Purposes (EOP) (Rahman 2015: 25). In the present research, English for vocational purposes was taught.

In vocational education, students enroll in "particular vocational" studies, such as "the hotel hospitality, accounting, tourism management, and computer engineering" (Widodo 2016: 279). Teaching EOP can be challenging for teachers as it requires a lot of time and research to familiarize oneself with relevant vocabulary and topics in a particular vocation. It has been found that although EOP teachers are linguistically adept, the main issue lies in the inability to effectively "explain professional knowledge" (Kong & Kong 2019: 408). Thus, professional development and trainings are necessary for EOP teachers as it differs vastly from teaching General English.

Some authors claim that ESP is generally taught to students who are independent or proficient language users. This is because ESP requires the students to possess a "basic knowledge of the language system" (Rahman 2015: 25). According to the national curriculum for basic schools, students are required to obtain a B1.2 level of English by the end of their studies (National Curriculum for Basic Schools 2011: 12). In reality, some students do not reach that level of English by the end of the basic school. A number of these students decide to continue their studies in vocational secondary schools. This creates a conflicting situation

because on the one hand, ESP is an essential part of the curriculum in vocational schools, which is understandable because vocational education must prepare students for their future careers. On the other hand, ESP can be too taxing for students who are not independent language users yet. According to Krashen's hypotheses, foreign languages can be acquired successfully through "comprehensible input in low anxiety situations, containing messages that students really want to hear" (Krashen 1982: 7). The "affective filter" (ibid: 30-32) should be as low as possible for learning to take place. In other words, feeling anxious, stressed or self-conscious could prevent students from acquiring new information because the affective filter is too high (Krashen 1982)._Therefore, taking the students' needs and abilities into consideration is essential, and employing innovative ways to make learning manageable for all students in the class is paramount.

Most of the research concerning the use of flipped learning in ESP courses has been carried out in higher education. At the moment of writing this thesis, no articles were found on the implementation of the flipped classroom technique in an ESP course in secondary vocational education. However, several studies justify the use of flipped learning in ESP courses.

Rudneva and Pavlova (2020) implemented the flipped classroom technique in an ESP course among undergraduate students with the aim to develop the students' listening skills and professional terminology. The authors highlight that in comparison to a regular ESP course, using the flipped classroom technique enabled the students to work through an increased amount of work. Thus, the students were exposed to more authentic listening activities, resulting in a more effective learning experience.

An article by Kvashina and Martyno (2016) examines the use of flipped learning in an English for engineering course among undergraduate students. The authors identified a

common issue that ESP teachers face being the lack of contact hours to teach ESP. According to the authors, flipping the classroom helped to „compensate for the reduced contact hours“ (Kvashina & Martynko 2016: 73).

Salem (2018) explored the effects of flipped learning on functional writing skills among business majors. Additionally, the author examined ways in which the technique could enhance higher-order thinking skills. It appeared that the ESP students achieved better results in terms of academic achievement compared to the classes that were taught in a traditional manner. Furthermore, flipped learning proved to be more effective in developing students' higher-order thinking skills (Salem 2018: 73).

Several authors have concluded that implementing the technique was useful in their ESP course. For example, the engineering students achieved 28% better results on the final test compared to students who had not participated in flipped classes (Kvashina & Martynko 2016: 73). Improved test scores were also found in other studies (Rudneva & Pavlova 2020: 7501, Salem 2018: 190, Gross et al 2018: 6). It is especially important to note that implementing the technique could be beneficial for weaker students. Salem (2018) suggests that flipped learning gives the teacher more time to deal with students individually in the class, thus aiding in the process of creating positive attitudes. In an ESP classroom where the flipped classroom technique was used for biochemistry students, the exam scores increased „by nearly 12% in the flipped-format course“ and the increase in exam scores was particularly high among low-achieving students (Gross et al 2018: 1) The author believes there are several reasons for the boost in exam scores after employing the technique. First, the students dedicated more time to doing homework and in flipped classes, the work was completed over a longer period of time, meaning that the work was completed in smaller chunks, which could have prevented “cramming” the material (Gross et al 2018: 5, 7).

2.3 Teaching vocabulary through the flipped classroom technique

The importance of vocabulary in foreign language classrooms cannot be understated. Without knowing the meanings of lexical items in a language, it is impossible to make sense of it. In fact, it has been found that language learners must understand 95-98% of the words in a text in order to make sense of it (Schmitt 2008, cited in Ur 2012: 63). Moreover, an average of 5 to 16 repetitions is needed in order to memorize a new word (Nation 1990, cited in Schmitt 2007: 831). Ur (2012) explains that simply knowing the written form of a lexical item in a foreign language is not enough to acquire it successfully. Other aspects of vocabulary teaching include teaching pronunciation and explaining the meaning of new words in context. Sometimes it is also important to teach grammar of certain lexical items and explain ways in which words collocate. Therefore, the way EFL teachers present, recycle and revise vocabulary in and outside the classrooms play an integral part in how well the students master the language.

Vocabulary acquisition in L2 can be divided into two categories: intentional and incidental vocabulary learning. If vocabulary learning is done intentionally, it means that the learner is aware of the “target” vocabulary and the learning process (Karami & Bowles 2019: 27). Incidental vocabulary learning denotes a process in which vocabulary is acquired without the goal to learn specific vocabulary (Karami & Bowles 2019: 27-28). Although some vocabulary is learned incidentally, almost all learners benefit from intentional vocabulary instruction since only a small percentage of words is memorized from “incidental exposure” (Schmitt 2007: 831, 839). One of the most important criteria in choosing the vocabulary to teach is frequency, meaning how often a certain “word, expression is used in conversation or writing” which can be identified with the help of corpora (Ur 2012: 65).

In addition to frequency, the students’ needs should also be taken into account (Ur 2012: 65). For ESP students, for example, it is important to teach the vocabulary related to their future occupation. In this case, needs analysis is crucial in choosing the necessary vocabulary to design

and teach a successful course. Needs analysis is based on the idea that since ESP courses have a narrower focus and a purpose compared to general English courses, needs analysis serves as means to identify what exactly needs to be accomplished by the end of the course (Robinson 1991: 3, cited in Rahman 2015: 25). Therefore, needs analysis is a useful aid for designing a relevant ESP course, which is in accordance with the students' needs. Rahman (2015: 26) claims that language needs analysis can be done through "questionnaires, structured interviews, observations, analysis of authentic spoken and written texts, discussion, and assessments."

Target Situation Analysis (TSA) is a subcategory of needs analysis. According to West (1994), TSA is the most common type of needs analysis, which focuses on the students' "occupational or academic situation they are being prepared for" (West 1994: 8). The objective of TSA is to ascertain the language skills that the students need to acquire by the end of the course. This is usually done through learning activities "which mirror those of the target work situation" (Benavent & Sàncnes-Reyes 2015: 144). In order to prepare students for their future work situations, these activities are usually "task-oriented and interactive, involving authentic material" (Byram 2000: 495, cited in Benavent & Sàncnes-Reyes 2015: 144).

Videos are commonly used in flipped courses. There is an array of videos available to use in general English classes. In this case, flipping the classroom might be less time consuming for the teacher. However, in ESP courses, finding suitable videos can be more challenging and in some cases, the instructor might choose to create videos to meet the requirements of the ESP curriculum. In this case, there are several guidelines to keep in mind when creating instructional videos.

First, video length should be taken into account. Slemmons et al (2018) published a comprehensive study on the effects of video length in flipped learning. The experiment lasted for two years, and essentially, middle school students were divided into two groups, and students either watched a longer 20-minute video before class or two 10-minute videos. It was

found that even though the differences between pre and post-tests were not that pronounced between the groups, the students preferred to learn from shorter videos. The students disclosed that shorter videos were more engaging and their ability to concentrate was higher.

A large-scale empirical study was published at the University of Rochester, examining which type of videos are the most engaging for adults. Among other factors, video length was extensively analyzed in this study. The authors revealed that the optimal video length is 6 minutes. The authors found out that if the video exceeds 9 minutes, learners frequently watch less than half of the video (Guo, Kim & Rubin 2014: 44).

In addition to video length, the teachers should determine which type of video is the most engaging for the students. Researchers have identified six main types of videos that instructors tend to use:

1) Videos where only PowerPoint slides are shown. 2) Code-type videos which is essentially a voice-over recording of an instructor teaching to write code. 3) Khan-style videos where the teacher is drawing on a graphics tablet. 4) Classroom lectures that are videotaped. 5) Videos filmed in a professional studio. 6) Office desk-type videos taken at close range of the instructor's face (Guo, Kim & Rubin 2014: 44).

It was found that the most successful videos in terms of engaging students were the ones where the teacher was in the close vicinity of the camera, looking straight into it. Also, students engaged most with the videos that switched from showing slides to the instructor's face. Some argue that such videos create a sense of "personalization" where the learner feels that the video is targeted at them directly rather than a crowd (Guo, Kim & Rubin 2014: 46). Thus, alternating between slides and the teacher's face might be a good idea when creating videos.

Student engagement was also higher when the instructors spoke faster. According to the authors, this might emulate more enthusiasm and energy (Guo, Kim & Rubi: 48). However, in ESL classes it is important for the teacher to be mindful of their language use and in some cases, adjusting their language is imperative. However, it is also important to keep in mind not to

speak too slowly as the students can pause the video at any time. It is also recommended to edit out filler words and pauses to make the video more refined (ibid: 48).

Thus, it can be concluded that simply videotaping a lecture and using it in flipped classrooms might not yield desired results. There are several principles to keep in mind when creating videos for flipped lessons. The instructor should take into account the appropriate video length, the type of video that best suits their course, the pace of speech and editing might also be necessary to keep students engaged.

3. The study of the students' perceptions of the flipped classroom technique

The present study was conducted among 11 female upper-secondary vocational school students aged 16-21 studying to become secretarial professionals. The aim of the research is to examine the students' perceptions of teaching vocabulary through flipped lessons and the strategies they use to learn vocabulary. Moreover, the advantages and disadvantages of the technique in a vocational setting are also analyzed from the students' perspective.

The author of this paper used the flipped classroom technique in an ESP course for several reasons. First, there was a lack of textbooks and teaching materials to use in the school for this particular course. Unfortunately, the textbooks were out of date and not relevant to the topics discussed. The same problem was identified in an empirical study carried out at Vietnamese universities where ESP was taught. The authors highlight that the lack of relevant study materials is one of the most challenging parts of teaching ESP (Hoa & Mai 2016: 156).

The overarching topic of the course was office work and by the end of the course, students were expected to have learnt how to mediate information related to their profession in English, answer and transfer phone calls, compile written messages such as formal emails, memoranda, and reports. Therefore, vocabulary was introduced through topic-based modules and three videos were created on two topics. The author created three videos for this study (see Appendix 6). Two videos were created on the vocabulary related to the topic of telephone conversations. The first one introduced phrases to use when making phone calls, more specifically phrases for introducing oneself, asking to speak to somebody, stating the reason for one's phone call, transferring and leaving messages. In the second video, the teacher taught the phrasal verbs related to telephone conversations. In the third video, the teacher explained the correct structure of a business email and the phrases to use when writing emails.

Longer multi-word expressions were used in all the three videos because according to research, it is useful to store such expressions in "the memory as a whole chunk" (Ur 2012: 60).

Researchers also note that “once these multiword units” are memorized as “whole chunks,” it can help students in becoming more fluent as they are “preassembled” (Pawley & Syder 1983, cited in Schmitt 2007: 829).

The following section gives an overview of the methodology and procedure, learning activities in the classroom as well as outside the classroom, followed by results and discussion.

3.1 Methodology and procedure

Three 90-minute flipped lessons were created for this thesis. The course lasted for two months from December 2019 to February 2020. During the course, the teacher alternated between teaching lessons in a more traditional manner and lessons whereby the flipped classroom technique was implemented. In the flipped classes, the students were required to watch the videos at home and complete a short test in Google Forms before class. The YouTube videos and tests created by the teacher were uploaded to Google Classroom to make sure that all the materials were uploaded to the same platform to avoid confusion. In addition, the students were already familiar with Google Classroom and had access to it.

Pre- tests and post-tests were administered for each topic to measure how much of the vocabulary was acquired. Pre-tests were done before completing the pre-class and in-class learning activities and post-tests were administered at the beginning of the next lesson. SPSS Statistics software was used to analyze pre- and post- test results. A paired samples t-test was carried out to calculate the mean value and the correlation between pre- and post- tests. The paired t-test is used to compare two means from the same person and it is commonly used when analyzing pre- and post- tests after implementing a new approach in one sample group (Kent State University 2020). However, it is important to note that test scores were not the main focus of the study as it was not possible to carry out the experiment with a control group, which is one of the limitations of this study.

In order to analyze the students' overall perception of the flipped classroom technique, quantitative data was collected by the author. A six-point Likert-scale questionnaire was compiled (Appendix 1) in order to analyze the first research question: What were the students' overall perceptions of the flipped classroom technique? A table was created in Excel to calculate the percentages. The results are displayed in a table below (Appendix 3). The students' attitudes were measured by how motivated they felt and during the flipped classroom experiment, whether and how many of the videos they watched and whether and how many of the tests they completed before class. Additionally, the aim of the questionnaire was to find out how confident the students felt in the areas covered during the course. Six topics were chosen out of which three were taught using the flipped classroom technique and the other three were taught in a traditional manner. The author of this paper analyzed whether the students' self-confidence was higher in the areas that were taught using the flipped classroom technique or not. The students were enquired whether they would be motivated to learn this way in the future.

Since the sample size of this study was 11 students, quantitative data was not sufficient to analyze the students' attitudes at a deeper level. Therefore, the rest of the research questions were scrutinized qualitatively. Three semi-structured interviews (Appendix 2) were conducted in groups of 3-4 students to get answers to the rest of the research questions: which strategies the students used to learn the key vocabulary before coming to class and what kind of advantages and challenges this technique has in a vocational setting according to the students. Initially, the author also intended to examine whether teaching through the flipped classroom technique made the topics more memorable for the students, which is reflected in the semi-structured interview questions (see Appendix 2, question 2). However, since it proved impossible to answer this question on the basis of the data that was collected, the author decided to leave it out of the scope of the present research.

The interviews were recorded, transcribed and coded inductively. The interviews were conducted in Estonian to ensure that all the students understood the questions and would be able to answer them regardless of their English proficiency. The topics for the flipped lessons were the following: telephoning in English, phrasal verbs for telephone conversations and the third video was on the topic of writing formal emails.

In this present research, a needs analysis was conducted at the beginning of the course through discussions and analysis of spoken text and it became apparent that the students lacked the necessary vocabulary to communicate information related to their future occupation in English. For instance, the ability to mediate information between colleagues and clients as well as compiling messages and emails is especially important for office workers.

Videos were used to teach vocabulary for several reasons. First, it was done to expose students to vocabulary items multiple times. The test in Google Forms was administered partly to ensure that students do the work but also to provide multiple exposure to vocabulary and thus, make vocabulary acquisition more efficient. Second, the needs analysis was also taken into consideration and since students lacked the necessary lexis to communicate in their occupational areas, teaching vocabulary was especially important in the course. Third, Tartu Vocational Education Centre could only allocate 40 academic lessons for this ESP course, which meant 20 in-class meetings. The author created the videos in the hope of saving time by moving explicit vocabulary teaching outside the classroom. As a result, the teacher was able to focus on active learning in the classroom and practicing vocabulary in context through group activities and authentic tasks. Additionally, the videos were created to make vocabulary items more memorable. Ur (2012: 66) suggests, “The more impact your presentation of new items makes, the more likely students are to remember it.” Therefore, receiving explicit vocabulary teaching via YouTube videos might be more memorable for the students.

The students' language levels varied from elementary to intermediate. The author attempted to create videos that would be beneficial for all students in the class. The students were able to watch videos at their own pace by pausing, rewinding and taking notes. Lastly, absenteeism was a major issue among students and the videos were created to help absent students catch up with studies, thus reducing the number of dropouts.

3.2 In-class and out-of-class activities

One of the prerequisites of successful implementation of the flipped classroom technique is that the out-of-class activities and in-class activities are planned in a coherent and meaningful manner. It is essential that pre-class and in-class activities complement each other and form a unitary whole.

In the present research, pre-class activities included watching a video and completing a short vocabulary quiz. Therefore, the focus was on developing the lower-level skills such as remembering and understanding. Although all the videos that the teacher created were in English, some translation into Estonian was used in the pre-class quizzes to ensure that all students understood the vocabulary presented in the video. Although the optimal video length for videos is 6 minutes according to research, the videos that the author created for this project were slightly longer. The first video was 11 minutes; the second and the third videos were around 8 minutes.

The author of this paper kept the recommendations of Guo, Kim and Rubin (2014) in mind when creating video content for the flipped lessons. The teacher decided to film videos at home in a relaxed environment to create a sense of "personalization" whereby the students feel that the videos are directly targeted at them, not a big audience. Guo, Kim and Rubin (2014) also advise alternating between slides and the teacher's face. Instead of slides, the teacher decided to use pop-up text was used to display vocabulary in written form.

Each video ended with a quick self-check exercise to consolidate vocabulary and to apply vocabulary in context. As proposed by Ur (2012), the form and the denotation of new words are the most important aspects when teaching vocabulary. However, it is also important for the teacher to give examples of how lexical items are used in sentences. Otherwise, the learners might know the word and its denotation but remain unable to use it correctly because they do not know the correct grammatical links between words. Ur (2012) also advises teachers to explain the appropriate use of new vocabulary because some lexical items are appropriate to use only in certain contexts. This was especially important in videos where phrases related to telephone conversations were taught. It was essential to emphasize that some phrases are only appropriate to use in telephone conversations but not in everyday communication

It is also recommended to edit videos to make them more engaging for learners (Guo, Kim & Rubin 2014). Sony Vegas Pro editing software was used to add text to the video as well as to edit out filler words and long pauses. In hindsight, video production was time-consuming because the author had not used the editing software beforehand. On average, each video took several days to edit. This validates the issue mentioned by Low and Hew (2017) and Kvashina and Martynko (2016) that implementing the flipped classroom technique can be a tedious task for the teacher. However, it is important to note that once the teacher gets used to editing and becomes more confident in front of the camera, the process of creating videos might not take as long.

The in-class activities must be well thought out because one of the cornerstones of the flipped classroom technique is to dedicate plenty of time in-class to learning activities and tasks that are cognitively more challenging (Kvashina & Martynko 2016: 73). The idea is that the students need to have enough time in class to analyze, evaluate and create and skills that are not as demanding, such as remembering and understanding, can be done independently at home.

The teacher implemented the principles of active learning and employed communicative learning activities in order to increase the students' autonomy. Each lesson started with a warm-up activity to activate the students' schemata, in other words, previous background knowledge of the topic (Harmer 2015: 303). For example, an interactive mind map was created by the students through a brainstorming session. The students were asked to recall all the new words that they remembered from the video, followed by a discussion. The teacher also implemented interactive games that students played in groups. This was done to involve all students in the process of learning and to encourage group work and interaction through which students could learn from each other.

For instance, a game called "hot seat" was played at the beginning of the class to revise vocabulary. The class was divided into two and one student from each group sat in a chair, facing their team with their back toward the board. The teacher wrote a word or an expression from the video on the board and the students had to explain the word to their team member. The person who guessed the word faster gained a point for their team. This was repeated until all students got an opportunity to guess the word. One of the benefits of the flipped classroom technique was that such engaging games could be played right at the beginning of the lesson.

By the end of each lesson, the students had to finish a specific task. Target Situation Analysis was taken into account when planning the in-class activities. The tasks that the students were required to complete "mirrored" their future work setting, as proposed by Benayent & Sànches-Reyes (2015). Since the students are going to work in an office environment in the future, it was of utmost importance to role-play and act out authentic tasks such as making and receiving phone calls and writing business emails in the computer lab. The importance of authentic tasks has been explored by Mishan (2005). The author implies that "authentic sources tend to stimulate learners to further independent discovery and learning" (Mishan 2005, cited in Widodo 2016: 280).

In the first flipped lesson, the students had to create and record a phone conversation in pairs (Appendix 7), in the second lesson, students had to create dialogues using the phrases from the video (Appendix 8) and in the third lesson, the students exchanged business emails in the computer lab (Appendix 9). All the three flipped lessons were planned in a way where students moved from easier activities to more challenging ones. Scaffolding was provided by the teacher through visual aids, modeling and asking the students questions. The teacher noticed that the students seemed more independent during flipped lessons and the students had more time to work in groups and develop higher-order skills. Other authors expressed a similar sentiment in their research papers (Santikarn & Wichadee 2018: 123, Salem 2018: 73). In addition, the teacher could allocate more in-class time for hands-on and practical activities related to the students' occupation.

3.3 Results and discussion

In the present research, the students' perceptions of the flipped classroom technique were examined. Pre- and post-tests were carried out to ascertain how much of the vocabulary was acquired. Quantitative data was collected to get a general overview of the students' perceptions of the course (1st research question). Due to the small sample size, qualitative data was also collected through semi-structured interviews to get answers to the rest of the research questions.

A paired samples t-test (Appendix 4) was carried out to determine whether there was a statistical difference between the test scores before and after implementing the flipped classroom technique. For the first topic (Telephoning in English), the arithmetic mean is $Md=4.1$. Standard deviation is $\sigma d=1.4802$. $t=9.167$ and therefore, $sig=.000$. Since p (sig) is less than 0.5, there is enough proof that there is a significant difference between the mean values of pre- and post-test scores. For the second topic (phrasal verbs), the arithmetic mean is $Md= 7.86$.

Standard deviation is $\sigma d=3.3173$. $t=7.862$ and $\text{sig}= .000$. Since p (sig) is less than 0.5, there is strong evidence that there is a significant statistical difference between the mean values of pre- and post-test scores. For the third topic (Writing business emails), the arithmetic mean is $Md=13.22$. Standard deviation $\sigma d=5.8795$ and $t=9.2774$, therefore $\text{sig}= .000$ and since p (sig) is less than 0.5, there is a significant statistical difference between the mean values of pre- and post-test scores. The paired samples t -test shows that there was a significant improvement in the students' test scores for all three topics. One of the reasons for increased test scores could be the implementation of the flipped classroom technique, as it allowed more practice in class. Improved test scores have been found in other studies as well (Kvashina & Martynko 2016: 73, Rudneva & Pavlova 2020: 7501, Salem 2018: 190, Gross et al 2018: 6).

In order to get an answer to the first research question, the students filled out a Likert-scale questionnaire. The results show that 90% of the students felt motivated to learn English via the videos created by the teacher and all students either slightly agreed, agreed or completely agreed that it was useful to watch the videos. Thus, it can be concluded that most students were motivated to learn in this way and all of the students found the videos useful.

100% of the students circled "completely disagree" on the fourth statement "I did not watch any of the videos created by the teacher." This indicates that all students watched at least one video out of the three, or at least they claim that. One of the common concerns of the flipped classroom technique is that the students do not complete the assignments at home. In this research, most students watched the videos. However, only 37% of the students completed all the three quizzes in Google Forms before coming to class. One of the reasons for that could be that the teacher did not grade the quizzes and therefore, the students might have been less motivated to complete this extra assignment. Interestingly, 82% of the students claimed that "Doing the quizzes before coming to class helped me memorize the information in the video." Therefore, it would have been beneficial to follow the example of Little (2015) and check the

students' work at the beginning of each class to make sure that students actually finish all the necessary work.

According to some authors, one of the concerns related to the flipped classroom technique is that it creates more homework for learners and is therefore overwhelming for students (Schultz et al. 2014, Snyder et al 2014, Wang 2016, cited in Lo & Hew 2017: 11). 73% of the students in the present research either disagreed, completely disagreed, or slightly disagreed that watching the videos and completing the quizzes before class took too much time. This shows that the majority of the students did not consider the pre-class activities too time-consuming.

The majority of the students slightly agreed (18%), agreed (27%) or completely agreed (37%) with the tenth statement on the questionnaire – “I learned many new words by watching the videos made by the teacher.” This shows that 82% of the students considered the videos as a valuable resource for learning new vocabulary.

As for the in-class activities, the majority of the students agreed with the eleventh statement “I enjoyed the in-class activities based on the videos we watched at home.” However, 9% of the students slightly disagreed and 36% slightly agreed with this while 36% agreed and only 18% completely agreed with this statement. This shows that although the majority of the students enjoyed the in-class activities, it appears that some students were not as keen on the learning activities. This issue will be discussed in more depth later in the group interview section.

It is natural for students to feel more motivated when an innovative learning technique is first implemented. However, the author also wanted to explore whether the students would be motivated to learn in this way further along the line. 64% of the students either agreed or completely agreed that they would be motivated to learn this way in the future. 27% of students

slightly agreed and 9% slightly disagreed with this statement. However, it is important to note that 20% of the students slightly disagreed with the 13th statement “I would like to learn English in this way regularly.” This shows that some students would not like to partake in flipped classes on a regular basis.

In the questionnaire, the students were asked how confident they felt after the course about six topics that were covered during the course. Three of the topics were taught in a traditional manner and three of them were taught in flipped classes. The three topics that were taught in the traditional manner were the following: business acronyms and abbreviations. 36% of the students either agreed or completely agreed that they feel more confident about this topic. The second topic was different departments in a company. 45% of the students either agreed or completely agreed that they feel more confident. The third topic was writing a memorandum. 45% agree or completely agree that they feel more confident about this topic.

As for the topics that were taught through the flipped classroom technique, the first one was phrases for making taking phone calls in English. 90% of the students either agreed or completely agreed that they feel more confident about this topic. The second topic was phrasal verbs for telephone conversations. 82% of the students agree or completely agree that they feel more confident. The third topic was writing business emails in English. 63% either agreed or completely agreed that they feel more confident in that area. This shows that the students felt significantly more confident in their abilities regarding topics that were taught through the flipped classroom technique.

Group interview results

Three group interviews were conducted to gain a deeper understanding of different strategies the students used to learn vocabulary from the videos. Qualitative semi-structured interviews are useful to get a comprehensive insight into the participants’ experiences (Sage 2018). Thematic analysis was carried out to analyze interview data. The interviews were

transcribed, re-read, analyzed and interpreted. Recurring themes related to the research questions were identified in the process and categorized accordingly. Four main themes were identified: strategies that students used to learn vocabulary, advantages of the flipped classroom technique and challenges of the model, and whether the students would be motivated to learn through the flipped classroom technique in the future.

The students were not given any guidelines on how to watch the videos to learn vocabulary. This was done to explore which strategies they used on their own to intentionally learn vocabulary. It appeared that the students used different strategies to learn vocabulary before coming to class. As mentioned by various authors, using videos for flipped classes creates a flexible learning environment where videos can be paused and replayed if needed. Several students mentioned that they watched the videos multiple times (“I watched the video once and then I watched one more time while doing the quiz and pausing when necessary; “I paused the video to read the text, then I wrote it down and I did the same thing until I reached the end of the video. Then I watched it one more time to make sure everything is correct”). These examples show that some students listened to the videos multiple times especially due to the quizzes they had to complete before class. Additionally, weaker students admitted to watching the videos multiple times (S4, S6). Hsieh, Wu and Marek (2017) state that repeated exposure to learning materials is beneficial because students could gain a deeper understanding of the material. Nation (1990) indicated that 5 to 16 repetitions are needed to memorize a new vocabulary item; therefore, watching the videos multiple times can be particularly beneficial for weaker students.

Three students said that they systematically learned the vocabulary by taking notes (“I wrote new words and expressions down before coming to class”; “I paused the video and wrote down all the important words”; “I wrote the vocabulary in my notebook and revised the vocabulary I had written down before class”). However, some students admitted that they did

not use any strategies to learn vocabulary. For example, “I did not use any strategies to learn new words. I just listened to the video and hoped for the best.” Although the flipped classroom technique creates a flexible learning environment for students, it also means that students take more responsibility for learning because they are required to complete pre-class activities on their own. Therefore, it might be a good idea to introduce some learning strategies to upper-secondary vocation students because students will benefit from intentional vocabulary learning. In addition, if weaker students simply listen to the videos once without intentionally learning the theoretical concepts from the video, they might struggle to catch up with other students during in-class learning activities. Therefore, it can be concluded that the flipped classroom technique did create a flexible learning environment that benefited diverse learners. The students were exposed to new lexis multiple times and they were able to learn at their own pace. However, it might be useful to teach different learning strategies to students before implementing the technique.

The students expressed several advantages and disadvantages of the technique during interviews. Several authors indicate that the flipped classroom technique enables the teacher to dedicate more in-class time to developing the students’ higher-level skills and it encourages students to take part in active learning activities (Santikarn, Wichadee 2018, Salem 2018). When the students were asked to share their opinions on the in-class activities we did based on the videos they watched at home, several students recalled learning activities where they had to use the vocabulary from the videos to create dialogues, e-mails or phone conversations (S10, S7, S5, S4, S1).

Some students mentioned that they enjoyed activities that were cognitively more challenging (“I enjoyed writing e-mails in the computer lab the most because I was able to practice what I had learned.” However, one student described how she struggled with the task of writing emails. (“Personally, it was a bit difficult to write e-mails in English. I was not sure

how to form logical sentences and I was a bit confused but in the end I managed”). Some students might feel uncomfortable in situations where higher-order skills are being developed because the task can seem daunting at first. However, it is of the utmost importance for students to take part in activities that are cognitively challenging for them because learning takes place in the zone of proximal development. In such situations, scaffolding is crucial to help students bridge the gap between what they already know and what they can potentially achieve in the future.

Bishop and Verleger (2013) assert that interactive group activities grounded in student-centered learning theories are integral to the successful implementation of the flipped classroom technique. Thus, employing active learning activities whereby students take responsibility for learning is crucial in flipped lessons. The teacher implemented interactive games and collaborative tasks every lesson to follow the definition of the flipped classroom technique. (“The lessons were really interesting. We didn’t just sit and write something off the whiteboard or fill out worksheets, there was always something going on, which made the lessons interesting”). Several students were fond of the games that we played at the beginning of the class to revise vocabulary (“The games we played were cool. I remember the game where we had to explain words to our classmates who were sitting in front of the class”; “I would like to play more games like the chair-game to revise vocabulary”). This shows that some students enjoyed taking part in active learning activities and collaborative games. By flipping the lessons, the author could allocate more in-class time to such activities where students were required to take an active role in learning. Implementing the flipped model enabled the teacher to start the lesson by playing interactive vocabulary games to activate the students’ schemata.

It has been argued that one of the disadvantages of the technique is that it creates more work for students and learners might not therefore be motivated to complete the assignments. Interestingly, some students expressed that they felt like they had less homework in flipped

classes: (“At the beginning of the course, [before implementing the flipped model] I just couldn’t believe the amount of homework you assigned us. However, later [when the flipped technique was implemented] the videos made up for it. Time went by faster when I watched the videos and it didn’t take as much effort because I was just listening”). Learners also communicated that watching videos at home and doing an online quiz seemed like less work compared to filling out a worksheet. In traditional classes, students were usually required to fill out a worksheet at home. However, when the lessons were flipped, the students watched videos instead. (“If you have a worksheet to fill out, it feels like you have a lot to do but watching a video seems like less work”). Several students also commented that watching the videos and doing the quizzes was not time-consuming (S2, S3, S6, S7, S8, S9). Thus, it can be concluded that some students in the present study felt as though they had less homework when the flipped classroom technique was implemented.

The students were asked to share their opinions on how they felt in the class after having watched the videos at home. Some students reported feeling more confident after having done the pre-class activities as opposed to regular lessons. For example, “I felt more confident in class after having watched the videos” (S2, S10, S11) and “I felt like I could voice my ideas in class”. The author asked the students to explain why they felt more confident in flipped classes and a number of students revealed that doing the pre-class activities offered them reassurance because they knew what to expect. (“After I had watched the videos and completed the quizzes, I felt like I knew what was coming”; “Watching the videos provides an introduction to the coming lesson and you get an idea of what is coming”; “It was useful to watch videos because it gave us an idea of what’s to come”). Therefore, it can be concluded that for some students, the flipped classroom technique fostered confidence and it might have lowered the students’ affective filter.

One noteworthy theme that appeared from the interviews were the problems that students experienced during in-class activities. The students were enquired what they would change about the in-class activities and during one interview, three students out of four agreed that there were too many group activities during flipped lessons. (“Perhaps less group work. We had to work in groups almost every lesson!”) The teacher usually assigned groups randomly to encourage collaborative learning among all students and it appeared from the interview that some students did not enjoy this approach (“It is impossible to do pair work if you are paired up with a person who isn’t very talkative”; “I didn’t like that groups were assigned randomly”). Grypp and Luebek (2015) suggest that students in this cohort might need more support and instruction as to how to work together in groups. The results of this paper show similar results among some upper-secondary vocational students in the present study. Since collaborative in-class learning activities are a fundamental part of the flipped classroom model, the teacher should take the time to explain the necessity for working in groups and clarify the roles of each group member, as mentioned by Mohr and Mohr (2017).

Although most students in the study completed the pre-class activities, it appeared that some students did not do the work beforehand due to poor study habits and issues regarding time management. Three students admitted that they watched two out of the three videos created by the teacher (S8, S9, S2). The students were asked to explain why they did not manage to watch all of the videos (“Sometimes I just forgot to watch videos or remembered to watch them at the last minute. At times I watched the videos in the morning right before class”). The author asked the students to describe how they felt in class when they had not managed to complete the pre-class assignments. “It was more difficult to catch up with others after not having watched the videos. All the other students were familiar with new words and I was not”; “I was counting on my desk mate to help me out during class. I felt that if the teacher were to ask me something, I would have no idea what to say”). Therefore, some students in vocational schools

might not do the pre-class activities and it can be difficult for the teacher to make sure that students do the work, which coincides with ideas presented by Lo and Hew (2017) and Little (2015).

One of the indicators of learning motivation is whether students would like to continue learning this way in the future. As mentioned earlier, 20% of the students slightly disagreed when asked whether they would like to take part in flipped classes regularly. During interviews, this issue was explored in more depth. Although some students expressed willingness to learn in flipped classes regularly in the future (S1, S10, S11), other students opposed this by expressing that it would be better to implement the flipped classroom technique once in a while. (“I would like to watch the videos once in a while. Perhaps once a week”). Some students clarified that watching the videos before every lesson would not be realistic for them. “Well, I think I would often forget to watch the videos and I couldn’t be bothered to watch the videos if there were too many of them”; “Learning in this way can be a double-edged sword. On the one hand, there is no way I would actually watch a video before every lesson. It was quite difficult for me to manage watching these three videos. On the other hand, it was nice to come to class prepared, which made it easier to move on and the topic goes by faster.”) This indicates that one possible problem when implementing the flipped classroom model among upper-secondary vocational students could be the learners’ lack of motivation to complete the pre-class activities before every lesson. One student admitted that she prefers a regular lesson because of the opportunity to ask questions right away. “Personally, I would stick to a regular lesson because I can get feedback in the classroom and I don’t have to learn that much on my own at home.” A similar result was found in a study by Bhagat et al (2016) whereby some students were frustrated because they were not able to ask questions right away when watching video lessons.

4. Conclusion

While the flipped classroom technique has been widely researched in the field of higher education, research regarding the implementation of the technique in vocational education has not been thoroughly investigated yet. The students in the present study belong to the cohort named Generation Z, the children born between 1995 and 2010 (Rothman 2016). Seemiller and Grace (2016) suggest that the flipped classroom technique might be particularly beneficial for students of that age range.

The existing research on the implementation of FC in vocational education indicates that there are several benefits to flipping the classroom. Cronin, Cerbian and Requejo (2018) and Villaba, Castilla and Redond-Duarte (2018) suggest that the flipped classroom model enables teachers to spend more in-class time on developing the skills related to the students' future profession. Moreover, Santikarn and Wichadee (2018) and Salem (2018) mention that flipping the classroom allows the teacher to allocate more time to developing the learners' higher-level skills and it promotes active learning. Furthermore, Kvashina and Martynko (2016), Rudneva and Pavlova (2020), Salem (2018) and Gross et al (2018) provide evidence of improved test scores after implementing the flipped classroom technique.

Conversely, Kettle (2013), Bhagat et al (2016), Schultz et al (2014), Snyder et al (2014) and Wang (2016) point out some disadvantages of the technique. For instance, some students held negative views about the technique because the amount of homework increased when the flipped model was implemented and therefore, it was too time-consuming.

The author strived to contribute to research culture within the vocational education sector by examining the effects of teaching vocabulary by implementing the flipped classroom technique among upper-secondary vocational students. More specifically, the students' perceptions of the flipped lessons were examined alongside the strategies they used to learn

vocabulary. Furthermore, the advantages and possible drawbacks of the technique in the context of vocational education were investigated.

On the basis of pre- and post-tests, it can be concluded that the students' test scores improved exponentially for all the three topics after the implementation of the technique. However, the author suggests that further research is needed into the correlation between the implementation of the flipped classroom technique in vocational education and academic achievement of students.

The broad implication of the present research is that students had positive perceptions of the flipped classroom technique. The majority of the students held the pre-class activities in high regard with 90% of the students reporting that they felt motivated to learn via videos created by the author and all students considered the videos useful. In fact, 82% of the students acknowledged that the videos were a valuable tool for learning vocabulary. In addition, most students (73%) did not consider pre-class activities too time consuming or overwhelming. However, qualitative data revealed that some students in the present study did not complete all the mandatory pre-class activities due to poor time management and inadequate study habits. In order to avoid situations where students fall behind when implementing the flipped classroom technique, students might benefit from instructions on how to build better study habits. This could be especially beneficial before implementing flipped learning in vocational schools.

In terms of in-class learning activities, most students expressed that they enjoyed the in-class activities based on the videos they watched at home. The author was able to spend more time in class to develop the students' higher-level skills and assign authentic tasks directly related to their future occupation. Furthermore, the implementation of the technique enabled the teacher to employ various games and collaborative learning activities. However, some students were of the opinion that there was too much group work during flipped lessons and

some did not enjoy being assigned to groups randomly. Since collaborative learning activities are at the heart of flipped learning, it would be a good idea to place special emphasis on explaining the rationale for working in groups. The teacher might need to provide additional support on how to work together successfully in vocational schools.

The students used various strategies to learn vocabulary. The learners paused, re-played and took notes when watching the videos. Beginner EFL students admitted to watching the videos up to three times, meaning that weaker students have the potential to gain a lot from the implementation of the technique. They can pause, rewind and watch the videos at their own pace. Thus, the technique created a flexible learning environment for all students.

The author attempted to find out whether there was a pronounced difference between the students' self-reported confidence levels between topics that were taught with the flipped classroom model and topics that were taught in a traditional format. The data suggest that upon completing the course, the students felt substantially more confident in their abilities regarding the topics that were taught through the flipped classroom model. These findings are consistent with the qualitative data that was collected after the experiment. Students repeatedly mentioned feeling more confident in-class after having done the pre-class activities because they had an idea of what to expect.

On this basis, the author concludes that the implementation of the flipped classroom technique had positive effects on the students' vocabulary acquisition and for the most part, students had positive attitudes toward the implementation of the technique. The students' perceptions are valuable in light of the possible advantages and drawbacks of employing this technique in vocational schools.

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Appendix 1. Questionnaire

The questionnaire measuring the students' perceptions

Questionnaire

The survey is conducted to understand your overall perception of the flipped learning in the course. There are no right or wrong answers. Please circle the answer which best reflects your overall thoughts about each statement. Your answers are anonymous and confidential.

NB! Question number 5. If you did not complete any tests, do not answer this question. If you completed all 3 tests on Google Classroom, circle the option „completely agree“. If you completed 2 tests, circle the option „slightly agree“. If you completed one test, circle „slightly disagree“.

Question no 6. Answer this question only if you completed at least one quiz on Google Classroom.

** = Only answer these questions if you watched the videos or did the test before coming to class. Write a minus (-) sign if you did not watch the videos nor complete the quizzes at home.*

1	2	3	4	5	6
Strongly disagree	Disagree	Slightly disagree	Slightly agree	Agree	Completely agree

- | | | | | | | |
|--|---|---|---|---|---|---|
| 1. I felt motivated to learn English via YouTube videos created by the teacher. | 1 | 2 | 3 | 4 | 5 | 6 |
| 2. It was useful to watch the videos created by the teacher. | 1 | 2 | 3 | 4 | 5 | 6 |
| 3. I watched all the videos created by the teacher. | 1 | 2 | 3 | 4 | 5 | 6 |
| 4. I did not watch any of the videos created by the teacher. | 1 | 2 | 3 | 4 | 5 | 6 |
| 5. I completed all three quizzes before coming to class. | 1 | 2 | 3 | 4 | 5 | 6 |
| 6. Doing the quizzes before coming to class helped me memorize the information in the video. | 1 | 2 | 3 | 4 | 5 | 6 |
| 7. * Watching the videos took too much time. | 1 | 2 | 3 | 4 | 5 | 6 |
| 8. * Doing the quizzes took too much time. | 1 | 2 | 3 | 4 | 5 | 6 |
| 9. * Watching videos before coming to class gave me confidence. | 1 | 2 | 3 | 4 | 5 | 6 |
| 10. * I learned many new words by watching the videos made by the teacher. | 1 | 2 | 3 | 4 | 5 | 6 |
| 11. I enjoyed the in-class activities based on the videos we watched at home. | 1 | 2 | 3 | 4 | 5 | 6 |
| 12. I would be motivated to learn English in this way in the future. | 1 | 2 | 3 | 4 | 5 | 6 |
| 13. I would like to learn English in this way regularly. | 1 | 2 | 3 | 4 | 5 | 6 |
| 14. I now feel more confident in the following areas: | | | | | | |
| Phrases for making and taking phone calls in English. | 1 | 2 | 3 | 4 | 5 | 6 |
| Business acronyms and abbreviations. | 1 | 2 | 3 | 4 | 5 | 6 |
| Writing business emails in English. | 1 | 2 | 3 | 4 | 5 | 6 |
| Different departments in a company. | 1 | 2 | 3 | 4 | 5 | 6 |
| Writing a memo. | 1 | 2 | 3 | 4 | 5 | 6 |
| Phrasal verbs for telephone conversations. | 1 | 2 | 3 | 4 | 5 | 6 |

Appendix 2. Semi-structured interview questions

Group interview questions

1. Have you ever watched instructional videos to learn English before this course?
2. Which topics did we cover during the course? Which ones can you remember the most?
3. How many of the three videos did you watch? How many of the quizzes did you take before class?
4. In case you watched the video and did the quiz before class, how did you feel in the class?
5. Describe the way you watched the videos. How many times did you watch each video? Did you pause/rewind/repeat/take notes/translate?
6. How much time and effort did you spend in this course compared to other courses?
7. In what ways could the instructional design be improved in the future? Teaching methods, video content, learning tools (Google Classroom and Google Forms) and in-class activities?
8. Was there something you did not enjoy about the videos/learning tools/in-class activities?

Appendix 3. Quotes from the interviews.

1) Strategies to learn vocabulary

“I watched the video once and then I watched one more time while doing the quiz and pausing when necessary.” (S2)

“First I opened the quiz and took a look at the questions and tasks. Then I watched the video and paused it when you explained something that we had to answer in the quiz.” (S1)

“I wrote new words and expressions down before coming to class.” (S2)

“I was able to remember new words by doing the quizzes.” (S1)

“I paused the video to read the text, then I wrote it down and I did the same thing until I reached the end of the video. Then I watched it one more time to make sure everything is correct.” (S4)

“I paused the video and wrote down all the important words.” (S5)

“I watched the videos for three times.” (S6)

“I watched the videos twice” (S4)

“I wrote the vocabulary in my notebook and revised the vocabulary I had written down before class.” (S6)

“I did not systematically learn the words.” (S5)

“I did not use any strategies to learn new words. I just listened to the video and hoped for the best.” (S7)

“I watched the video on my computer and simultaneously completed the quiz on my phone. If I missed something, I re-winded the video and listened to it again.” (S10)

“I opened the quiz and watched the video while doing the quiz.” (S9)

“First I watched the video, then I opened the quiz and tried to memorize the information from the video.” (S8)

2) Advantages of the flipped classroom technique

Developing higher-level skills

“I enjoyed writing e-mails in the computer lab the most because I was able to write and practice what I had learnt.” (S11)

“I remember that we created dialogues and we had to use these words that we picked randomly.” (S10)

“We had to record phone conversations. That was interesting.” (S8)

“You gave us pieces of paper with different roles written on it and then we had to create dialogues. We created many dialogues.” (S8)

“We created our own telephone conversations.” (S7)

“We created dialogues and so on.” (S5)

“I remember that we went to the computer lab to write e-mails.” (S4)

“We created a dialogue.” (S1)

“You gave us a piece of paper with roles written on it and then we had to write our own e-mails.” (S5)

“Personally, it was a bit difficult to write e-mails in English. I was not sure how to form logical sentences and I was a bit confused but in the end I managed.” (S10)

Games and collaborative and active learning

“The games we played were cool. I remember the game where we had to explain words to our classmates who were sitting in front of the class.” (S10)

“I remember the chair game too!” (S9)

“You wrote the words on the board and there were two teams and we had to explain the words and people had to guess the words. I remember that game.” (S7)

“The lessons were really interesting. We didn’t just sit and write something off the whiteboard or fill out worksheets, there was always something going on, which made the lessons interesting.” (S1)

“All the games were fun.” (S2)

“I would like to play more games like the chair-game to revise vocabulary.” (S2)

Less homework in flipped classes

“At the beginning of the course, I just couldn’t believe the amount of homework you assigned us. However, later the videos made up for it. Time went by faster when I watched the videos and it didn’t take as much effort because I was just listening.” (S8)

“If you have a worksheet to fill out, it feels like you have a lot to do but watching a video seems like less work.” (S10)

Watching videos was not time consuming and saves time

“It didn’t take a lot of time. The videos were short.” (S8)

“Watching the videos was not a big deal.” (S9)

“You get stuff done faster this way and learn more information in the process. One can also watch the videos multiple times at home and therefore learn more things.” (S6)

“You can revise the material that was in the videos in the classroom, ask additional questions and then it’s easier to move on to a new topic.” (S5)

“The workload was not as high compared to other courses.” (S6, S7)

“I think that you did not assign as much homework as other teachers in the school. The volume of homework was not too much and it was not as taxing. This made learning very enjoyable.” (S5)

“Watching the videos did not take too much time.” (S2)

“The quizzes did not take much time. It took me 15 minutes tops.” (S3)

Increased self-confidence

“I felt more confident in class after having watched the videos.” (S 2,10,11)

“I felt like I could voice my ideas in class.” (S1)

“It was useful to watch videos because it gave us an idea of what’s to come.” (S4)

“After I had watched the videos and completed the quizzes, I felt like I knew what was coming.” (S5)

“Watching the videos provides an introduction to the coming lesson and you get an idea of what is coming.” (S2)

3) Disadvantages

In-class activities

“Perhaps less group work. We had to work in groups almost every lesson!” (S5)

“It is impossible to do pair work if you are paired up with a person who isn’t very talkative” (S4)

“I didn’t like that groups were assigned randomly.” (S5, S6)

The students do not do the work before class

“It was more difficult to catch up with other students in class if I didn’t watch the video.” (S8)

“I watched two videos”. (S8, S9, S2)

“I forgot to watch one video” (S9)

“Sometimes I just forgot to watch videos or remembered to watch them at the last minute. At times I watched the videos in the morning right before class” (S8)

“It was more difficult to catch up with others after not having watched the videos. Everyone else were familiar with new words and I wasn’t.” (S2)

“I was counting on my desk mate to help me out during class. I felt that if the teacher were to ask me something, I would have no idea what to say.” (S8)

4) Learning through the flipped classroom technique in the future

“I would like to watch videos before classes in the future. It would prepare me for the lessons.” (S1)

“I would like to learn in this way regularly” (S10, S11)

“I would like to watch the videos once in a while not all the time.” (S3)

“Learning in this way can be a double-edged sword. There is no way I’d actually watch a video before every lesson. It was quite difficult for me to manage watching these three videos. However, it was nice to come to class prepared, which made it easier to move on and the topic goes by faster.” (S8)

“Well, I think I would often forget to watch the videos and I couldn’t be bothered to watch the videos if there are too many of them.” (S9)

“I would like to watch the videos once in a while. Perhaps once a week.” (S9)

“Personally, I would stick to a regular lesson because I can get feedback in the classroom and I don’t have to learn that much on my own at home.” (S2)

“It would be good to watch the videos before a test.” (S11)

Appendix 4. The results of the questionnaire.

Question	Strongly disagree	Disagree	Slightly disagree	Slightly agree	Agree	Completely agree
Question 1	0%	10%	0%	40%	20%	30%
Question 2	0%	0%	0%	27%	37%	36%
Question 3	0%	0%	0%	27%	18%	55%
Question 4	0%	0%	0%	0%	0%	100%
Question 5	0%	0%	18%	27%	18%	37%
Question 6	0%	0%	0%	18%	46%	36%
Question 7	18%	9%	46%	18%	0%	9%
Question 8	18%	37%	18%	9%	18%	0%
Question 9	0%	9%	0%	27%	37%	27%
Question 10	0%	0%	18%	18%	27%	37%
Question 11	0%	0%	9%	36%	36%	18%
Question 12	0%	0%	9%	27%	27%	37%
Question 13	0%	0%	20%	50%	0%	30%
Question 14	0%	0%	0%	9%	63%	27%
Question 15	0%	0%	27%	37%	18%	18%
Question 16	0%	0%	0%	36%	27%	36%
Question 17	0%	0%	9%	46%	18%	27%
Question 18	0%	0%	9%	46%	27%	18%
Question 19	0%	0%	9%	9%	46%	36%

Appendix 5. The Paired Samples Test.

<i>Paired samples statistics</i>		Mean	N	Std. Deviation	Std. Error Mean
Pair 1	T1 Pre	5.727	11	3.5168	1.0604
	T1 Post	9.818	11	3.9005	1.1760
Pair 2	T2 Pre	8.091	11	5.0340	1.5178
	T2 Post	15.955	11	5.6941	1.7168
Pair 3	T3 Pre	6.727	11	4.4574	1.3439
	T3 Post	19.955	11	6.4477	1.9441

<i>Paired samples correlations</i>	N	Correlation	Sig.
Pair 1 T1 Pre & T1 Post	11	.926	.000
Pair 2 T2 Pre & T2 Post	11	.816	.002
Pair 3 T3 Pre & T3 Post	11	.468	.147

<i>Paired Samples Test. Paired differences</i>	Mean	Std. Deviation	Std. Error Mean	95% Confidence Interval of the Difference		T	df	Sig (2-tailed)
				Lower	Upper			
Pair 1 T1_Pre T1_Post	-4.0909	1.4802	.4463	-5.0853	-3.0965	-9.167	10	.000
Pair 2 T2_Pre T2_Post	-7.8636	3.3173	1.0002	-10.0922	-5.6350	-7.862	10	.000
Pair 3 T3_Pre T3_Post	-13.2273	5.8795	1.7727	-17.1772	-9.2774	-7.462	10	.000

Appendix 6. Videos created by the author

Video number 1. Telephoning in English. Available at

<https://youtu.be/bDtJNC2Hhg4>

Video number 2. Phrasal verbs. Available at

<https://youtu.be/JnSXVngUXZs>

Video number 3. Writing business emails. Available at

<https://youtu.be/I87ZIpRISns>

Appendix 7. In-class activities for topic 1: Telephoning in English

Use the cues to make your own telephone calls with a partner. Practice and then record your phone conversations. After you have finished recording, send your recordings to the teacher. These phone conversation must include a proper introduction, your problem/question and ending.

<p>Student A.</p> <p>You are Cathrene. You work for CRL. Call PSL Communications and ask for Mr. Fox. You haven't received the email with the agenda for the next meeting. Ask about the time and location of the meeting.</p>	<p>Student B.</p> <p>You are the receptionist, Abbie. Your boss (Mr. Fox) is not available to take calls at the moment. The caller wants to know about the details of your next meeting. Put the call on hold and ask your boss about the details of the meeting. Then, tell Cathrene about the meeting. (Details of the meeting: it is going to take place next Wednesday at 5 pm in the main hall.)</p>
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Appendix 8. In-class activities for topic 2: Phrasal verbs

The teacher decided to cut and mix the phrasal verbs, definitions and example sentences. As a warmup activity, the students matched the words to the correct definitions and example sentences. Later, the students picked five phrasal verbs randomly and their task was to create a dialogue using the phrasal verbs that they had picked. Then, the students acted out the dialogues. The rest of the students were supposed to listen carefully and say which phrasal verbs from the video were used in the dialogue.

Cut off	Get through	Pass on	Hang up	Get back to someone
To interrupt a telephone conversation.	To succeed in speaking to somebody on the telephone.	To communicate (to convey) a message to someone else	To end a telephone conversation and to put the phone down.	Telephone someone later
Our phone line was _____ because of bad connection.	I called the minister three times but I couldn't _____	Did you _____ my message to him?	It's very rude to _____ in the middle of a telephone conversation.	<i>I'll find out and _____ you soon..</i>
Pick up	Put through	Speak up	Break up	Hold on
To answer a telephone call.	To connect by telephone.	To speak louder.	To become inaudible over the telephone.	To wait for a short time.
_____t he phone, please!	I'll _____ you _____ to the secretary.	Please, _____ I can't hear you.	I'm sorry, I can't hear you. You're _____	_____a minute! I'll ask someone from the HR department.

Appendix 9. In-class activities for topic 3: Writing formal emails

1. Updating / delegating tasks

Write a formal email to....

Reason for the email: to update her on the plan for the new art gallery and let her know what you need to plan for the opening night.

You have finished the decorating and all the artwork and lighting is in place. However, you need some help with food and drinks. Ask her to organize food and drinks for the evening. Also, ask her to contact journalists to invite them to the opening night on 4 March. Let her know that you need to start organizing this ASAP.

NB! Use the correct structure of a formal email (a proper greeting, a pleasantry, the reason for your email, a call to action, a closing message, ending, attachments if necessary).

2. Cover email with document attached

Write a formal email to ...

Reason for your email: You met up yesterday to discuss your presentation next week. She has offered to help you with it in case you have questions. You are sending her a copy of your presentation for the meeting next week. Additionally, you are sending a copy of the handout you are going to give everyone. Ask her to check the documents and ask for her opinion. You need her answer by Friday, 31 January.

NB! Use the correct structure of a formal email (a proper greeting, a pleasantry, the reason for your email, a call to action, a closing message, ending, attachments if necessary).

3. Confirming arrangements

Write a formal email to

Reason for the email: You are writing to confirm her Spa booking.

The package includes two days at V Spa (Booking confirmation: GWS0012Y). Inform her that check-in time is at 2 p.m. on January 31 and checkout time is February 2 at 12 p.m. Her first treatment starts at 3 p.m. on Friday. Ask her to check your website and online booking system in case she is interested in booking any other treatments.

NB! Use the correct structure of a formal email (a proper greeting, a pleasantry, the reason for your email, a call to action, a closing message, ending, attachments if necessary).

RESÜMEE

TARTU ÜLIKOOL
ANGLISTIKA OSAKOND

Tiina Pruus

Implementation of the Flipped Classroom Technique in an English for Specific Purposes Course in Vocational Education.

Ümberpööratud klassiruumi meetoditka rakendamine kutsehariduskeskuse erialase inglise keele kursuse raames.

Magistritöö

2020

Lehekülgede arv: 69

Annotatsioon:

Uurimuse eesmärk oli rakendada ümberpööratud klassiruumi meetodikat kutseõppurite inglise keele kursusel, et õpetada erialaga seonduvat sõnavara. Kursuse raames uuriti spetsiifilisemalt bürootöötajaks õppivate õpilaste arvamusi meetodika kohta ja strateegiaid, mida õpilased sõnavara õppimiseks kasutasid. Samuti soovis autor teada saada, millised on õpilaste perspektiivist ümberpööratud klassiruumi meetodika eelised ja puudused kutsehariduse kontekstis.

Töö autor filmis kolm videot ja valmistas ette kolm 90-minutilist tundi. Tunnis tegeleti koostöise õppega ja rakendati aktiivõppe meetodeid ning ülesandeid, mis olid seotud õpilaste tuleviku erialaga. Töös koguti andmeid nii kvantitatiivselt kui ka kvalitatiivselt. Autor testis õpilasi enne ja pärast ümberpööratud klassiruumi meetodika rakendamist, et uurida, kui palju sõnavarast õpilased omandasid. Samuti täitsid õpilased kursuse lõpus Likerti tüüpi küsimustiku, et selgitada välja, millised olid õpilaste üldised arvamused kursuse kohta. Lisaks viis autor õpilastega läbi poolstruktureeritud intervjuud, et uurimisküsimusi veelgi põhjalikumalt analüüsida.

Töö koosneb kirjanduse ülevaatest ja empiirilisest osast. Esimeses osas antakse ülevaade uurimuses osalevate õpilaste võimalikest õpieelistustest ja viisidest, kuidas ümberpööratud klassiruumi meetodika õpilastele sobiks. Teine peatükk keskendub ümberpööratud klassiruumi meetodika eelistele ja puudustele kutsehariduse kontekstis. Lisaks antakse ülevaade põhjustest, miks kasutada meetodikat erialase inglise keele kursuse raames. Empiiriline osa koosneb eksperimendi ja õpitegevuste kirjeldamisest ning tulemuste analüüsist.

Eel- ja järeltestidest selgub, et õpilaste tulemused paranesid märgatavalt pärast meetodika rakendamist. Samuti olid õpilased enamasti motiveeritud õppima autori poolt loodud videote kaudu. Tulemused näitavad, et õpilaste enesekindlus oli kõrgem teemade osas, mida õpetati ümberpööratud klassiruumi meetodikat rakendades. Kirjanduse järgi on üks suurimaid probleeme meetodika juures asjaolu, et sellises vanusegrupis õpilased tunnevad, et ümberpööratud klassiruumi meetodika tekitab rohkem kodutööd kui traditsioonilises õppes ja seega ei tee nad enne tundi vajalikke ülesandeid ära. Enamik uuringus osalenud õpilastest väitis, et nad vaatasid enne tundi vähemalt kaks kolmest videost ära, kuid intervjuudest selgus, et mõned õpilased ei teinud enne tundi kõiki vajalikke ülesandeid ära, mis oli tingitud probleemsetest ajajuhtimise oskustest ja ebapiisavatest õpioskustest.

Õpilased kasutasid sõnavara õppimiseks erinevaid strateegiaid: paljud neist panid video pausile, vaatasid seda mitu korda ja tegid märkmeid. Õpilased, kelle inglise keele tase oli madalam, tunnistasid, et vaatasid videoid kuni kolm korda. Seega aitas metoodika rakendamine luua paindliku õpikeskkonna, sest õpilased said valida aja ja koha õppimiseks ning nõrgematel oli võimalus vaadata videoid mitu korda, et sõnavara kinnistada. Samas tunnistas paar õpilast, et nad ei kasutanud strateegiaid, et sõnavara teadlikult õppida. Seega võib järeldada, et kutseõppurid võivad saada kasu erinevate õpistrateegiate tutvustamisest enne metoodika rakendamist. Kuigi enamus õpilastest suhtus koostöisesse klassitegevustesse positiivselt, leidis ka õpilasi, kelle arvates rakendas töö autor liiga palju grupitöid. Sarnaseid järeldusi on tehtud ka teistes uuringutes, kus väidetakse, et antud vanusegrupis õpilased võivad eelistada individuaalset lähenemist. Õpetajad peaksid seda ümberpööratud klassiruumi metoodikat rakendades arvesse võtma, sest grupitööd ja õpilaskeskised õpitegevused on ümberpööratud klassiruumi metoodika üks alustaladest. Autorid soovivad õpilastele hoolikalt seletada grupitöö olulisust ja anda selged juhised, kuidas efektiivselt koos töötada.

Uuringu tulemuste põhjal saab järeldada, et enamik kutseõppureid suhtus metoodikasse positiivselt ja suurem osa õpilasi, kes uuringus osalesid, sooviksid ka tulevikus ümberpööratud klassiruumis inglise keelt õppida. Samas õpilased tunnistasid, et metoodikat võiks rakendada vahelduseks, mitte regulaarselt.

Märksõnad:

inglise keel, ümberpööratud klassiruum, sõnavara, videod, erialane inglise keel, kutseharidus

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19.05.2020

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Lõputöö on lubatud kaitsmisele.

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19.05.2020