

UNIVERSITY OF TARTU  
DEPARTMENT OF ENGLISH STUDIES

**MOTIVATION AND STUDY SKILLS IN LEARNING ENGLISH  
VOCABULARY THROUGH COMPUTER GAMES IN ESTONIA**

MA thesis

INDRA MEHINE

SUPERVISOR: *Prof.* RAILI MARLING (PhD)

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## ABSTRACT

Today's youth are widely exposed to a variety of online activities. While some games are played at school for educational purposes (e.g. *Kahoot*, *Quizzes*), schoolchildren mostly play computer games outside of school in their spare time. Moreover, since the majority of games are in the English language, the youth adjust to the vocabulary they are immersed in through the games. This means that players encounter English vocabulary they may not have studied at school. Furthermore, many online computer games require player interaction and collaboration. As players in online computer games tend to come from different countries, English is usually used for communication. Hence, it can be suggested that playing computer games in the English language increases L2 learners' comprehension of vocabulary. Since many learners play computer games in the English language outside of school on their own initiative, it can be suggested that they are motivated to comprehend the vocabulary used in these games. Additionally, it can be said that computer games not only motivate players to learn new vocabulary in order to succeed in the games but also to develop their study skills such as time management, multitasking, self-reflection and critical thinking skills. Considering this, teachers of the English language in Estonia could encourage the learners to engage in computer games as part of an educational extramural activity.

The aim of this thesis is to find out which aspects of gaming in the English language are considered to be motivating for 18-19 year old Tartu Annelinna gymnasium students and whether the students are aware of having developed any study skills in the process of gaming in the English language. This would shed some light on further chances to incorporate gaming into the English L2 language lessons in Estonia.

The thesis consists of an introduction, two main chapters and a conclusion. The introduction explains the value of the topic in the context of education, states the research questions and outlines the structure of the paper. The first chapter introduces previous research about the benefits of gaming in the English language to improve L2 language learners' motivation and study skills. It also provides an overview of similar research carried out in other countries. The second chapter presents the method, the results and the analysis, in which the results are compared to those of similar studies in other countries. The conclusion provides a summary of the findings and considers possibilities for the future research.

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## INTRODUCTION

Motivation is an important part in every learning process. Sung (2013: 19) underlines that even students with great skills will struggle to expand their L2 vocabulary unless they are motivated. Some motivational aspects that Sung (2013: 20) highlights are:

learner's desire to integrate into the target language culture, learner's belief in the usefulness of gaining L2 (second language) proficiency, learner's attitudes toward contact with L2 speakers and visiting the L2 country, the perception of the learner's significant others such as family and friends toward the target language, learner's confidence level in L2 learning, learner's appreciation of the L2 cultural products, and learner's perception of the L2 community such as status and demographic factors.

This list stresses the importance of attitudes but also direct contact with the target language culture and its speakers. Thus, the creation of a motivating environment would ideally give the learners an opportunity to interact using the target language with other L2 speakers or with native speakers to provide them with useful language input, either at school or virtually.

Interestingly, Sung (2013: 20) argues that there is a difference between males and females in vocabulary learning. According to her, British, Hungarian, Iranian, Chinese, Japanese and Korean female schoolchildren tend to be more motivated to learn languages than male schoolchildren (ibid.: 20). This tendency could be explained by the fact that female learners are often "integratively motivated" while the male learners are more "instrumentally motivated" (Sung 2013: 20). "Integrativeness" refers to the learner's desire to integrate into the target language culture, "instrumentality" on the other hand refers to the learner's belief in the usefulness of gaining L2 proficiency (ibid.: 20). These two types of motivation are often linked to L2 learning. Yet, integratively and instrumentally motivated learners both aim to achieve the language competence and this, in turn, involves communication with other speakers, either in reality or virtually. While Guerrero (2015: 97) has claimed that it is important to interact with L2 community speakers (or native

speakers), this is not always possible. It is essential to practice vocabulary in an environment where the language is widely used regardless of speakers' and learners' lingual background, e.g. in L2 language lessons at schools or during other activities where participants interact in the foreign language. Computer games are an example of such activities not only because of their motivating features but due to a platform for communication that they offer. While most games include awards, they also require player interaction in order to succeed in playing. Computer games could hence effortlessly be used as particularly motivating L2 vocabulary learning tool, especially in terms of extramural vocabulary expanding or acquiring process.

All kinds of learners require a sense of belonging. According to Jones (2003: 29), students feel safe in an environment which has features of a community. If learners feel appreciated and accepted, their motivation to study the language increases. Similarly, Guerrero (2015: 100) adds that the learners nowadays need to be considered as individuals, who are dynamic, unique and diverse. In order to be able to motivate these diverse learners, teachers should not only focus on the learning process but also on learners' personal traits. According to Guerrero (2015), individual approach in L2 vocabulary learning directly affects learners' motivation. It can be suggested that introducing the learners to various platforms for communication in the target language, such as to computer games, increases their motivation to study the vocabulary because the majority of the games provide players a sense of belonging (e.g. an online community), recognize the players diversity (e.g. different cultural backgrounds), and furthermore generally enable player autonomy.

Guerrero (2015: 101) also touches upon the globalisation of societies. Having access to learning resources and interaction with other language communities increases motivation among L2 language learners who can immerse themselves in the desired

language through various online activities. Thus, it can be beneficial to encourage learners to participate in virtual activities such as computer games in English. Other popular online activities which can be considered motivating in vocabulary learning include listening to music, blogging, watching films, TV-series, and video-logs (vlogs) in *YouTube*, etc. Generally speaking, learners' exposure to the L2 vocabulary in the context of its community or culture is also one of the motivating aspects mentioned by Sung (2013). Today, this community, are however, not just native speakers of English, but also international users who use English in their everyday interactions.

Liu and Wang (2017: 3) emphasise that

technology innovations have enabled affordable high speed Internet, mobile devices such as laptops, tablets and smartphones, and easy uploading and downloading of audio and video materials. Such innovations allow an unlimited variety of approaches to using technology to facilitate learning both individually and collaboratively, in school settings and at home.

Online activities therefore not only motivate learners to study new words in-class or outside of school, but can also work as a tool for socialising among the learners that provides a sense of belonging necessary for the effective learning.

The importance of technology in the L2 vocabulary learning process and student motivation is explained by the fact that today's learners are considered to be familiar with various types of digital technology and highly skilled at multitasking (Panagiotidis et al. 2018: 43). This needs to be considered in designing effective L2 language lessons. Panagiotidis et al. (2018: 43) also add that learners today primarily communicate online, formally or informally. Language learners nowadays often tend to prefer technology-enhanced environments, which can possibly increase their motivation to participate in the learning process (ibid.: 43). Moreover, it can be presumed that while learners engage in various online activities while learning vocabulary, they are unconsciously also developing some study skills (or learning skills).

Study skills in L2 vocabulary learning can be considered as important as motivation. Simpson (2015: 9) defines study skills as “learning how to become a more effective learner”. Study skills require practice and development (ibid.: 9). Motivation and study skills help to establish smooth interaction in L2. Among interaction strategies, Common European Framework of Reference for Languages (1971: 85) underlines key terms such as planning, realisation, evaluation and repair. The other three concepts cover identifying information, judging what can be presupposed, planning moves, co-operating, dealing with the unexpected, asking for help and monitoring (Common European Framework of Reference for Languages 1971: 85). It can be said that the interaction strategies L2 learners are supposed to encounter and practice in an educational environment are connected to study skills since comprehending information, planning, and overcoming issues (or “repair”) are also part of conscious study process.

Common European Framework of Reference for Languages (1971: 107-108) identifies the following student competences:

ability to make effective use of the learning opportunities created by teaching situations, e.g.: to maintain attention to the presented information; to grasp the intention of the task set; to co-operate effectively in pair and group work; to make rapid and frequent active use of the language learnt; ability to use available materials for independent learning; ability to organise and use materials for self-directed learning; ability to learn effectively (both linguistically and socioculturally) from direct observation of and participation in communication events by the cultivation of perceptual, analytical and heuristic skills; awareness of one’s own strengths and weaknesses as a learner; ability to identify one’s own needs and goals; ability to organise one’s own strategies and procedures to pursue these goals, in accordance with one’s own characteristics and resources. Common European Framework of Reference for Languages (1971: 107-108).

Heuristic skills are a part of essential study skills. More specifically, heuristic skills include

the ability of the learner to come to terms with new experience (new language, new people, new ways of behaving, etc.) and to bring other competences to bear (e.g. by observing, grasping the significance of what is observed, analysing, inferencing, memorising, etc.) in the specific learning situation; the ability of the learner (particularly in using target language reference sources) to find, understand and if necessary convey new information; the ability to use new technologies (e.g. by searching for information in databases, hypertexts, etc.). Common European Framework of Reference for Languages (1971: 108).

Both study skills and heuristic skills should be developed in language (including vocabulary) learners since they can be applied in different other contexts outside of school. Sakel (2015: 4) strongly believes that universities, for example, tend to expect that learners already know how to approach their studies and organise their learning process. Nonetheless, language learning lessons at schools not always develop students' study skills, since not every vocabulary learning activity corresponds to the improvement of learners' skills, including their study skills. Basic Schools and Upper Secondary Schools Act (Riigi Teataja 2020 ch. 1: para. 3) emphasises that “people who have acquired general education are able to integrate into society and contribute to the sustainable social, cultural, economic and ecologic development of Estonian society”. Basic Schools and Upper Secondary Schools Act (Riigi Teataja 2020 ch. 1: para. 4) particularly indicates that

the function of basic schools is to provide students with the learning and teaching environment that corresponds to the age of students, is secure, has a positive impact and develops students, supports the development of their interest in learning, learning skills, self-reflection, critical thinking, knowledge and will-based characteristics, their creative self-expression and the development of their social and cultural identity.

Considering the previous points, it can be said that L2 language learners can develop study skills either directly or indirectly, for instance, while participating in various online activities (e.g. in computer games).

Regarding the development of study skills in basic schools, National Curriculum for Basic Schools (2014: 3) states that

learning to learn competence is consistently formed by implementing different learning strategies (e.g. seeking information from sources in foreign languages, using dictionaries). Self-reflection and analysing acquired knowledge and skills (e.g. according to the European Language Portfolio) are also important.

Furthermore, National Curriculum for Upper Secondary Schools (2014: 4) adds that the learning competence in upper secondary schools can be developed by

guiding students to use different learning strategies, see the links between new and previously acquired knowledge and to apply the contents of learning in different situations, to analyse one's

knowledge and skills (e.g., based on the principles of the European language portfolio), to plan one's studies and to follow the plan.

Other important competences include cultural and value competence; social and citizenship competence; self-awareness competence; communication competence; mathematics and natural sciences and technology competence, and entrepreneurial competence (National Curriculum for Upper Secondary Schools 2014: 3-4). While the development of some competences such as mathematics, natural sciences, technology, and entrepreneurial competence can be distinguished in the learning process, the development of study skills is relatively complex to trace due to the fact that study skills are part of learners' individual cognitive competence and have no common standard for evaluation. Smythe (2012: 7), however, explains that having study skills does not guarantee immediate success in learning, but can nevertheless create an opportunity to improve performance in vocabulary learning. In order to develop study skills in L2 learning it is necessary to continuously work towards improvement and request feedback (ibid.: 7).

Banditvilai (2016: 221) states that online learning activates learners' creativity due to the encouragement of data analysis, data evaluation and data transformation into learners' own knowledge. In other words, learners are developing their comprehension of new information while participating in online, or e-learning environments. Additionally, e-learning familiarises learners with time management skills and encourages learners to become responsible for their own learning, making them autonomous and more confident. In an online environment, introverted students tend to feel secure to interact and thus, they participate in the learning process more than they would do in class (ibid.: 221).

Considering the increasing variety of software for virtual interactions and numbers of its users worldwide (especially during COVID-19 outbreak), today's learners of English in Estonia either are or have been exposed to virtual activities such as playing computer

games in the English language. Hence, the present study will, generally speaking, focus on gaming (playing computer games); learners' motivation to play computer games, skills and more precisely, study skills developed while gaming, if any. Student players need to navigate through the storyline of computer games in the English language. For this, players need to comprehend and acquire new vocabulary. It can furthermore be hypothesized that during gaming, students not only acquire vocabulary but also develop study skills that contribute to their further language development. The thesis will attempt to find out which aspects of gaming in the English language, according to students' beliefs, are most motivating and whether the students have, in the process of gaming in the English language, developed or enhanced study skills that can be put to good use in other language classes.

The current thesis aims to answer the following research questions:

1. Which aspects motivate 18-19 year old Tartu Annelinna gymnasium students to comprehend new vocabulary in the English language while gaming?
2. Which study skills do 18-19 year old Tartu Annelinna gymnasium students believe they have developed through gaming in the English language?

In the literature review, the thesis will first touch upon the use of computer games in English L2 vocabulary learning, the possibilities of increasing learners' motivation through using computer games, and the development of learners' study skills through using computer games in the vocabulary learning. A study will then be carried out among a group of 18-19 year old students in Tartu Annelinna gymnasium to answer the research questions. The data will be gathered using an online questionnaire, considering social contact restrictions in Estonia at the time of completing this thesis.

# 1. COMPUTER GAMES IN VOCABULARY LEARNING: MOTIVATION AND STUDY SKILLS

## 1.1. Computer games in the English L2 vocabulary learning

Sylvén and Sundqvist (2012: 303) claim that playing computer games is typical for teenagers, although people of all ages globally spend their spare time online, including playing computer games. Playing games is linked to language acquisition as “successful and frequent players of such games who do not have English as their mother tongue acquire some of their English L2 proficiency in the activity of gaming” (ibid.: 304). Specifically,

claims have been made that certain games, in particular massively multiplayer online role-playing games (MMORPGs) provide L2 English learners with a linguistically rich and cognitively challenging virtual environment that may be conducive to L2 learning, as learners get ample opportunities for L2 input and scaffolded interaction in the L2. (Sylvén and Sundqvist 2012: 302).

According to Horowitz (2019: 398), regardless of whether the participants of the study played “MMORPGs like *World of Warcraft* or action shooter games like *Call of Duty*”, the need to use English vocabulary to communicate and coordinate with team members and other players to complete objectives remained the same. Single-player games also require interaction. In order to reach mutual goals in fulfilling the tasks in computer games, players mostly communicate in English if they come from different countries (Horowitz 2019: 400). Computer games supply players with the purpose of learning and the targets which are an essential part of the vocabulary learning process. The results of Serafin’s (2016: 85) study, for instance, suggest that according to the participants, playing computer games is an advantage for students’ second language acquisition since the majority of participants (93%) of the study stated that they learn English while playing computer games. More precisely, 102 gamers (aged 10-35) took part in a survey which indicated whether they believed that playing computer games had helped them to acquire the second language

(ibid.: 82). Computer games in the English language introduce players to variety of expressions and lexicon, depending on a genre of the game. Traditional game genres include action, adventure, role play, strategy and simulation (Chapelle and Sauro 2019: 11). Ranalli (2008: 5) considers *The Sims* useful for learners with low L2 language levels as the game covers everyday objects, actions and situations, especially words related to interior and exterior, as well as personality adjectives and simple action verbs. Participants in Ranalli's (2008: 13) study, intermediate-level L2 language learners, agreed that they learned new words and expressions and that simulation games can be helpful for vocabulary learning.

Additionally, Theodorsen (2015: 4), speaking of playing computer games in general, explains that the concept of Task-Based Language Teaching (TBLT) "is important for understanding why video games have such language teaching potential". *The Sims*, as an example, requires players to comprehend vocabulary which is widely used in everyday situations in order to complete the tasks. In other words, playing different simulation games is a good example of TBLT in which the goal of learning is to be able to apply the knowledge in common practical situations, e.g. in reading a set of instructions, finding solutions to a puzzle, establishing communication or starting a friendship. It can be said that gaming is comparable to such daily circumstances in which "the player is an active agent interacting and doing tasks that feel meaningful within a digital world" (Theodorsen 2015: 4). While the majority of computer games are task based, they can be said to provide language learners "rich and varied language input that often combines visual cues, text, spoken language and context" (ibid.: 4). Reinders (2016: 4) also underlines that features of a productive language-learning environment are similar to characteristics of many computer games which ordinarily include rules, aims, challenge, interaction, outcome and feedback. Hence, it can be said that gaming environments are similar to some language

learning techniques such as immersion, for example. Considering this, the learners of L2 English may find that computer games structurally remind them of activities used in the English classes at school which usually tend to involve goals, interaction and results.

In addition to learning new words, deHaan (2010: 74) et al. write that computer games are potential sources of linguistic information such as grammar patterns and terminology for language learners. Computer game players are often required to comprehend vocabulary and terminology which may be new for them. Galvis (2015: 116) specifies that, for instance, when reading the instruction for *Grand Theft Auto* or other mainstream computer games, players can consult additional language resources in order to completely understand a game's grammar patterns and contextual vocabulary. Not thoroughly comprehending a game's grammar results in not being a functioning digital member inside the game.

However, deHaan et. al. (2010: 74) found out that video game "watchers" (those who were watching how others play), at times, were able to recall more vocabulary items than those who were playing these games. For deHaan et al. (2010: 84) "the players' poorer recall of vocabulary seems to be attributable to the interactivity of the video game". Therefore, students who do not engage in active playing also acquire new vocabulary by watching how others play. Thus, teachers can pair students and give them different tasks while one of them plays the game and the other learner observes the gaming session. This method can also be interesting for learners since they are required to work together. DeHaan et al. (2010: 87) conclude that while computer games contain varied vocabulary depending on the content, teachers should carefully consider the emotional impact that some games may have on learners. Teachers must hence be aware of the content of computer games they encourage or approve among schoolchildren under the age of 18 as some games may contain inappropriate vocabulary or violent scenes.

However, there are several challenges that both language learners and language teachers may experience in the English L2 vocabulary learning or teaching through computer games. While Reinders (2016: 9) argues that the learners or their teachers may lack a level of technical skills to play the games or coach others, Hansen (2018: 70) adds that

children might not be able to use this equipment [a panel or unit accommodating a set of controls for electronic or mechanical equipment] to the extent that is required to play the game at a competent level. This might lead to discouragement and a lack of motivation, and a teacher will probably have a hard time completing a session in which the participants do not manage to handle the resources.

Moreover, some computer games may be expensive or require particular tools such as fast processors, graphics cards, headphones and microphones (Reinders 2016: 10), not to mention an access to high-speed Internet. Furthermore, while the learners may be motivated to play computer games to learn the English L2 vocabulary, the teachers can, on the other hand, be less interested in delivering game-based guidance (ibid.: 10). Nevertheless, teachers can encourage language learners to play computer games in the English language outside of the school, especially if the teachers are aware of the games that students prefer. Serafin (2016: 85) concludes that it would be hard to change the fact that young people spend a lot of time playing computer games; therefore, teachers should try to take advantage of it.

## **1.2. Increase in learners' motivation through using computer games in the English L2 vocabulary learning**

Although some L2 learners may perceive gaming in the English language technically challenging, the learners can nowadays rapidly overcome technical issues. Significantly, playing computer games requires entering unknown territories, taking on new roles, learning the game rules and, for many players, doing all of the above in a

second or foreign language, for example in the English language (Sylvén and Sundqvist 2012: 303). Furthermore, “the situation is far from what students encounter in the language classroom where the teacher generally has the initiative; digital games (i.e., games played on computers as well as games played on game platforms) are played by choice and at the individual’s own initiative” (Sylvén and Sundqvist 2012: 303). Hence, computer games increase learners’ motivation to comprehend the vocabulary in order to be able to play these games and achieve success in them. To increase learners’ motivation by using computer games at school or as a part of extramural educational activities, teachers of English can simply allow students to play those computer games which are appropriate in terms of the language and content. Regarding affective barriers, Ranalli (2008: 2-3) states that computer simulations, which contain synchronous chat, can motivate learners who would be normally shy during an in-class interaction. Additionally, Serafin (2016: 85) writes that the students are frequently bored with the inauthentic words used in the classroom. The vocabulary used in the computer games is more “real-life” and accessible for the learners (ibid.: 85). Thus, it can be suggested that in computer games, the L2 learners may feel curious about the vocabulary they encounter in context of the games that appeal to them.

Alshawi (2016: 31) studied the increase of learners’ motivation through using computer games among 30 Saudi students whose age varied approximately between 18-31 and whose English language proficiency was “low”. Since the participants of the study were beginner learners, the study used simple online language games where the participants learned new words while being divided into two groups: A (exposed to visual cueing) and B (no visual cueing). The study was conducted using both a gaming questionnaire survey and interviews. The research results showed that “the design for both of the games were effective regardless of the game having visual cueing or not having

visual cueing” (ibid.: 31). Visual cueing games commonly have both pictures and sound along with the questions (e.g. *Kahoot*). Such games can thus be considered useful for the beginner language learners. According to Alshawi (2016: 71), it is possible to distinguish between such motivating characteristics of gaming as “visual cueing versus no visual cueing, games with random questions versus increase difficulty, and games that provided feedback”. Alshawi (2016: 71) insists that using video games in learning English significantly increases students’ motivation to learn the words. While one game used in this study contained pictures and was designed as a pyramid, the other had no pictures and was designed as a spinning wheel, yet the participants of the study enjoyed playing the games and “were willing to see more ESL games activities to break the routine and take advantage of available technologies on the computer” (ibid.: 72). While Alshawi’s (2016) study, and some other, e.g. Ebrahimzadeh and Alavi (2017) studies come from Middle Eastern region, it can be said that learning English vocabulary through computer games is a relevant subject in many countries today. And hence, regardless of the region of studies, it can be supposed that the language learners and teachers acknowledge the benefits of learning or teaching English vocabulary through gaming.

Ebrahimzadeh and Alavi (2017: 93), according to the results of their study, emphasise that the majority of participants of the study (87.9%) were at the A1 language level of English. In the process of the research, some of the total of 241 male students (aged 12-18) were assigned to be “readers”, “players” and “watchers” (ibid.: 93). Readers had to learn new vocabulary items through working with texts and videos regarding the context of the games presented to players and watchers, while players and watchers were introduced to gaming in order to acquire these words. The proficiency test, the motivation scale, and the vocabulary pre-test were administered two weeks before the study. The study then went on for five consecutive sessions (one session a week, each lasting for

about 50 minutes). During each session, 3-6 vocabulary items were introduced through the treatments: a worksheet that included a reading passage with pre- and post-reading activities in English (for readers) and playing computer games (for players and watchers). Finally, students took the motivation post-test a week after the study (ibid.: 96). The results showed that playing computer games raised the students' motivation, and participants believed that gaming developed their cooperation, collaboration and teamwork skills (ibid.: 91). Yet, it was not mentioned whether the participants' language skills increased by the end of the study (ibid.). Ebrahimzadeh and Alavi (2017: 103) nonetheless highlight that first, participants were more motivated to learn in an informal environment which was entertaining and the participants found the learning process fulfilling. Second, both players and watchers were motivated to participate in learning the vocabulary through computer games, regardless of either actively playing or solely watching the gaming session. Finally, some of the students who were against the content of the computer games at the beginning changed their minds after the third or fourth gaming session (ibid.: 103).

Similarly, Ashraf et al. (2014: 288) explain in their study that learning English through computer games happens in a relaxed and natural way and is enjoyable for learners improving their motivation to comprehend the unknown vocabulary. In their study, 24 lower intermediate learners of English as a foreign language, ranging from 16-22 years of age, were selected. They were randomly assigned into "experimental" and "control" group with 12 subjects in each group (ibid.: 288-289). Participants in the experimental group could play "social, history, role playing, economy, and guessing games such as Sims, Chess Master, FIFA 2011, Counter Zero and Call off". During the class time students in the "experimental" class cooperated and competed with each other which also helped them to boost their vocabulary. The "control" group, on the other hand, learnt new words in sentences, texts and passages when dealing with reading and writing exercises. The course

lasted for fifteen weeks, 2 sessions per week. At the end of the course, the participants from both groups completed a post-test which included 20 items (fill in the blank=5, and multiple choice=15 items). (ibid.: 289). The participants of the experimental (online games) group significantly outperformed those in the control group (ibid.: 290). Ashraf et al. (2014: 290) conclude that the students who played computer games showed higher comprehension of English vocabulary than those who did not play computer games.

On the basis of previous research, some motivational aspects in learning the English vocabulary through computer games can be identified. For instance, learners' motivation to participate increases when they have a chance to choose a computer game. The degree of autonomy that players find in computer games enhances their motivation to engage in gaming. It can also be said that similarly to watching films, when learners watch a gaming session they acquire some of the words. Additionally, the learners play a computer game or watch the gaming session since it is entertaining for both players and watchers. Furthermore, computer games generally contain clear aims and provide feedback on whether the aims have been reached. Language learners are eager to accomplish missions in order to experience satisfaction. Ultimately, gaming with other players online can not only create new friendships but also raise learners' cultural awareness which is an essential component of intercultural communication in the globalising world today.

### **1.3. Development of learners' study skills through using computer games in the English L2 vocabulary learning**

While language learners are usually especially motivated to play computer games in English as the process of playing is entertaining for them, the learners are probably indirectly developing some study skills as well which can be put to good use in other

language classes. As computer games often require immediate response and continuous interaction either with other players or with the game itself, learners are becoming used to adjusting themselves to various situations such as failure, learning from mistakes, practicing to achieve results and etc.

The interaction and collaboration in computer games can be cognitively demanding, especially when players use English as their L2 language. Players of MMORPGs, for example, are often required to build on others' ideas, use counter-arguments, and understand feedback (Sylvén and Sundqvist 2012: 306). Chapelle and Sauro (2019: 6) argue that computer games of certain designs can serve as environments for player collaboration which contributes not only to players' linguistic competence but to their cultural awareness as well since players with different backgrounds are encouraged to combine forces to overcome issues or "defeat enemies". Interestingly, Horowitz (2019: 400) notes that computer games, particularly those played online with other people, have significant communicative value. Thus, it can be said that playing computer games enhances learners' problem solving skills and also improves their higher levels of cognition. Moreover, it can be argued that "online multiplayer video games are beneficial for increasing social engagement, such as the ability to organize groups and lead others in social causes" (Horowitz 2019: 401). More precisely, the "trial-and-error" nature of computer games gives gamers an opportunity to see the results of failure for not completing a goal, without suffering physical or emotional effects (ibid.: 401). Acknowledging the failure and learning from it is an important study skill as it provides room for learning and improvement. Consequently, computer games can be assumed to have an impact on the development of the awareness of one's own strengths and weaknesses as a learner, ability to identify one's own needs and goals, and ability to

organise one's own strategies and procedures to pursue these goals, in accordance with one's own characteristics and resources.

The majority of participants in Serafin's (2016: 85) study claimed that they developed their language skills (including vocabulary comprehension) while playing computer games. Reading seems to be the skill which was practised the most often (38%). The majority of English learners (67%) and computer games players involved in the study would like to combine playing computer games with learning English in the classroom (Serafin 2016: 85). More specifically, as most information in mainstream computer games is content-oriented, skills such as intensive reading, extensive reading, and reading to learn may be practiced in computer games, and in preparing learners to "digest" and understand material rich in content (Galvis 2015: 117).

Mitchell and Savill-Smith (2004: 60) underline that complex games, e.g. fantasy or simulation games, support the development of "expert behaviours" such as pattern recognition, strategic decision-making, memory skills and self-monitoring. Pattern recognition, strategic thinking and memory skills are crucial for the learning process, and self-monitoring is essential since self-reflection is a part of progressive vocabulary learning. Therefore, it can be said that fantasy and simulation games develop such study skills as analysing and critical thinking.

Ulicsak and Williamson (2010: 15) conclude that skills (and learning skills) which allow children to become more flexible and adaptable are especially important in the language and vocabulary learning process. The learners today have to be able to "shape-shift" according to the context (ibid.: 15). Thus, playing computer games in the English language not only develops some of the learners' study skills but also prepares them to become more adapted and creative in their future studies or eventually in the labour

market. Ulicsak and Williamson (2010: 18) add that today, outside of school, learners' "brains are being challenged at every turn by new forms of media and technology that cultivate sophisticated problem-solving skills". For this reason, Ulicsak and Williamson (2010: 20) emphasize that children are developing the skills of multitasking, navigating through different information flows, non-linear ways of behaving, managing to learn through investigation, and finally collaboration while playing computer games.

All things considered, it can be suggested that the English L2 language teachers in Estonia can take advantage of computer games not only for developing learners' study skills but for enhancing their knowledge of vocabulary. While the content of simple games, for instance, is more suitable for younger learners, older learners may engage in complex games. Both simple and complex games contribute to the increase of learners' cognitive competences which have a direct impact on their study skills. Therefore, it is sensible to investigate which of the skills in general, and as well which study skills the English L2 language learners in Estonia believe that they develop or practice while playing computer games in English. To ensure successful vocabulary learning, the teachers in Estonia could first raise students' awareness of how their language competence can improve by engaging in different English language activities outside of the school. And then, the teachers could encourage learners to play computer games in the English language to raise their learning awareness and overall language competence. While the learners can play the games at home, teachers can also include simple games to in-class activities. In time, using computer games in English could become a part of the language lessons in Estonia, especially, if the learners became aware that this helps them develop skills, including study skills.

## **2. COMPUTER GAMES IN VOCABULARY LEARNING: MOTIVATION AND STUDY SKILLS OF THE LEARNERS IN ESTONIA**

### **2.1. Method of the study**

In order to answer the research questions (p 10) of the thesis, a questionnaire was created for this study (Appendix 1). To provide a precise overview of participants' opinions, there were twelve questions in the questionnaire. The twelve questions were grouped according to subject matter: frequency of gaming (1-2); motivational aspects (3-6); skills and study skills (7-10); additional information (11-12).

Question one determined whether the participants played computer games in the English language regularly. Question two specified participants' gaming frequency to distinguish between regular players (e.g. every day) and periodic players (e.g. few times a month). To ensure that everybody had a chance to describe their gaming frequency, participants had an option to either choose from a set of answers or to add their own answer. If participants answered negatively in questions 1-2 (e.g. they did not play computer games in the English language at all), they were able to continue replying negatively throughout the whole questionnaire. This excluded any uncertainties considering the following questions since these were addressed to rather regular gamers. Question three asked participants about their motivation to play computer games in English. Question four asked if participants believed they understood all the words in the games. Question five specified how participants found out what the new words meant. More precisely, question six examined participants' motivation to comprehend new vocabulary whenever they encountered new words in the games. In questions three, five

and six, the participants had the opportunity to either choose from a set of answers or to add their own answer. This way all the opinions were considered.

Questions seven and nine asked whether the participants believed that gaming in English had generally helped them to improve some of their skills and then more specifically, their study skills. Questions eight and ten asked participants to state the skills in general and then study skills they believed they had improved or developed by playing computer games in English. To ensure that the participants had a chance to express their views regardless of any language issues, they were allowed to elaborate in English, Estonian or Russian. Answers in Estonian or Russian were translated into English. Moreover, to help participants understand what was meant by skills and study skills, questions seven and nine had an Estonian and Russian translation and several examples. Question eleven sought to find out whether participants would find it useful to include gaming into the English language lessons at schools in future. Question twelve asked the participants to specify which computer games they would suggest for learning English. This connected participants' answers throughout the questionnaire and provided the list of games that they had in mind when filling in the survey.

The questionnaire was created for 18-19 year old students of one school in Estonia, and was designed to meet their English language proficiency (approximately B1-B2). This age limit was set as older students tend to have better skills of self-management and self-analysis and greater awareness of their motivation and skills.

The questionnaire was sent to 18-19 year old students of Tartu Annelinna gymnasium on March 8<sup>th</sup>, 2021. The questionnaire accepted answers until March 15<sup>th</sup>, 2021. Participants who received the link of the questionnaire could only submit their

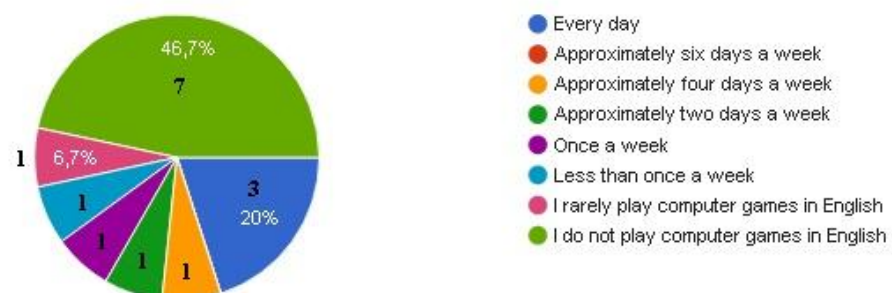
answers once. 45 student participants received the link to the questionnaire and 15 student participants submitted the questionnaire with their answers.

## 2.2. The results of the study

According to the responses of 15 participants of the survey, it can be said that the minority of the participants consider themselves to be gamers (playing computer games in English regularly). Thus, five (33.3%) out of 15 (total) participants admitted that they engaged in computer games regularly, which means that they play either every day or several times a week. More specifically, three participants revealed that they played computer games in English daily, while other three participants stated that they engaged in gaming approximately one to four times a week. Figure 1 depicts the frequency of gaming in English among the participants of the survey, including seven negative answers (“I do not play computer games in English”) and two replies such as “less than once a week” and “rarely”.

How often do you play computer games in the English language?

15 vastust

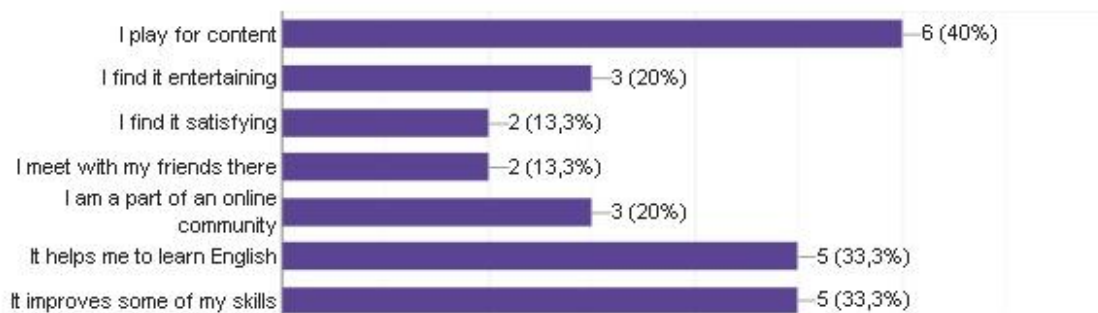


**Figure 1.** Frequency of gaming in English among the participants of the study.

Regarding the motivation to play the games in English, the most common answers were that the content of the games motivates (mentioned 6 times) the participants to engage in gaming, games help to learn English (5 times), and games improve some skills (5 times). However, the participants also said that they found the games entertaining (3 times), and that they were a part of an online community (3 times). Less common reasons to play computer games in English mentioned two times were “I find it satisfying” and “I meet with my friends there”. While being a part of an online community and meeting with friends may be similar, online communities in computer games are generally clans. In other words, belonging to a clan and having (online) friends are different in meaning. Figure 2 illustrates the motivation (reasons) to play computer games in English among the participants. The Figure does not include seven negative responses “I do not play computer games in English”.

What motivates you to play computer games in the English language?

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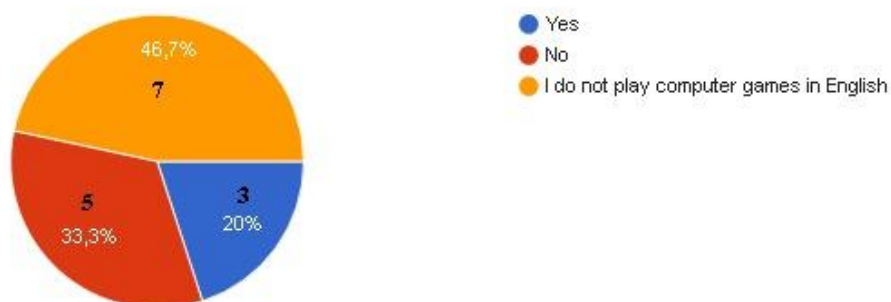


**Figure 2.** Motivation of the participants to play computer games in English.

Considering the responses about the comprehension of the vocabulary in the games, it can be said that the majority of the participants (five) do not always understand the words in the games. Three respondents on the other hand stated that they comprehended the words in games. Figure 3 shows the opinions about comprehension of the words which the participants encounter in the games.

Do you always understand the words in computer games in the English language?

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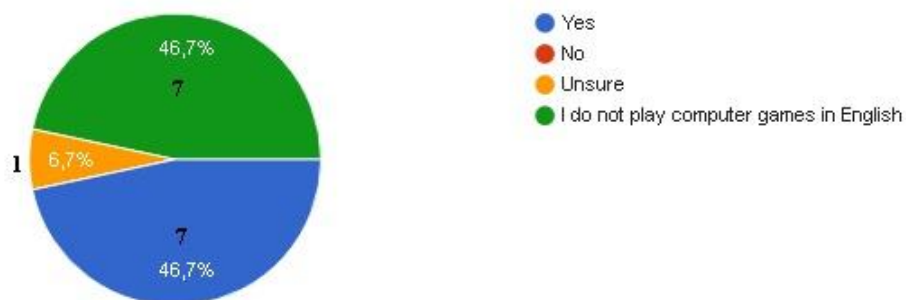
**Figure 3.** Participants' opinions about the comprehension of words in the games.

This being said, the participants were asked to, first, explain how they handled the new words and, second, what exactly motivated them to learn new words through playing the games. First, the majority of replies was “I check their meaning online (e.g. Google)” and “I guess from the context”, both having 7 occurrences. The other answers were that they either asked their friends (mentioned 4 times) or used the words again in the same context (3 times) to check themselves. Few participants either claimed to always understand the words in the games (Figure 3), or asked their teacher (1 time). Second, the participants stated that they learned unfamiliar words because they wanted to understand the words in case they saw them again (5 times), they wanted to use new words again in another context (5 times), and they had to understand the words to succeed in games (4 times). Nevertheless, the participants also felt interested in new words (3 times), and wanted to use the words again in games (2 times).

The participants were then asked whether they believed that gaming in English improved their skills. The majority (7 participants) found that gaming has a positive impact on the improvement of their skills, while only one participant felt unsure. Figure 4 shows that the gamers mostly agreed that gaming in English improves their skills.

Does gaming in the English language help you to improve skills (оскused/навыки)? E.g. technical, study, language, communication, problem-solving, strategizing, etc.

15 vastust



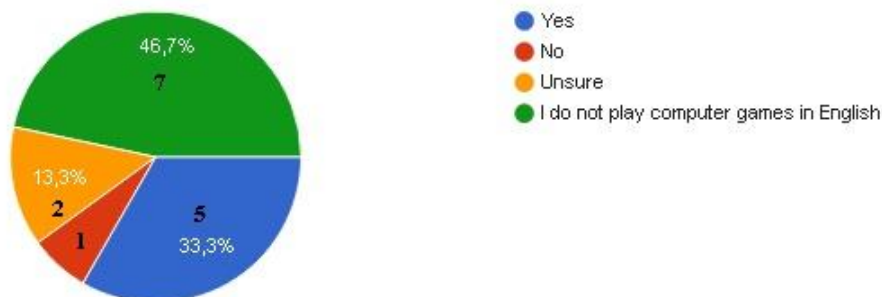
**Figure 4.** Improvement of skills through playing computer games in English.

The participants were asked to specify the skills that they believed they had improved while gaming. Among the common skills the participants named there were: communication, language, vocabulary, speech, listening, reading, grammar, compromise, problem-solving, reaction, and strategizing. Several of the skills were mentioned two to three times such as communication (mentioned 3 times), vocabulary (3 times), and language (2 times).

While two respondents felt unsure about the development of study skills when gaming in English, one participant stated that they did not believe gaming had helped them develop study skills. Yet, according to five participants (33.3%) of the study, gaming in English is useful in terms of developing study skills. Figure 5 hence demonstrates that the majority of gamer participants found that they developed study skills while playing computer games in English.

Does gaming in the English language help you to develop study skills (õpioskused/учебные навыки)? E.g. Skills which help you to study such as: time management, multitasking, setting goals, learning from failure, etc.

15 vastust



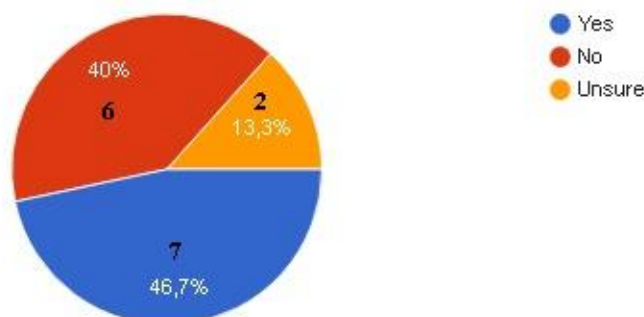
**Figure 5.** Development of study skills through playing computer games in English.

The participants stated that they believed gaming in English developed the following study skills: timing, experimenting, learning from failure, practicing, listening to other students and to teachers, multitasking, setting aims, and finding solutions to achieve goals. Several of the study skills were mentioned two to three times such as practicing which is both, learning from failure and finding solutions (mentioned 3 times), setting goals (2 times), and multitasking (2 times). Yet, two participants who felt positive about the development of study skills through gaming struggled to name the precise study skills and wrote that “not sure about any study skills” and one participant left a blank response.

The survey indicated that the majority of the participants thought that computer games in English could be included into the English language syllabus at schools in Estonia. However, two participants were unsure about this. Figure 6 shows that while 6 participants (40%) did not feel positive about gaming being included into English language lessons at schools, 7 participants (46.7%) on the other hand stated that they would prefer to play computer games in English as a part of language lesson activities.

Do you think that computer games in the English language could be included into the English language syllabus (ainekeava/учебный план) at schools in Estonia?

15 vastust



**Figure 6.** Participants' beliefs about including computer games into English language lessons at schools.

Finally, the participants were asked about computer games that they would suggest for learning the English language. In other words, they wrote down the games through which they believed that they had either learned English, or through which it was possible to learn English. Starting from the most popular, *Call of Duty* (mentioned twice), and proceeding with *CS GO*, *Outlast*, *Amnesia*, *Identify V*, *Fallen Order*, *Animal Crossing*, *Dark Souls*, *Duo Lingo*, *Shutter*, *The Last of Us*, *Resident Evil*, *Fallout*, *Doom*, *FIFA*, *Battlefield*. However, instead of naming the games, some participants described games they would suggest for learning English. Therefore, four participants added that “obviously which contain English content”, “where you can communicate with other players”, “I can’t name the exact names of the game, but they could be like story where every your answer and decision changes the course of events”, and “games in which you can have a dialogue”.

### **2.3. Analysis of the results of the study**

The results of the study help to shed light on the participants' beliefs regarding the usefulness of gaming in English. Three important points can be identified. Motivational aspects of gaming can be divided into two: first the participants' motivation to play the games in English, and second their motivation to comprehend new vocabulary in the process of playing. Among those who consider themselves gamers, the most popular reasons to engage in gaming in English were that the content matters (motivates), gaming helps to learn English, and it improves some skills. Furthermore, the participants' reasons for comprehending unknown vocabulary in English were mainly the desire to understand words in case they appeared again, the wish to use new words in another context, and the need to understand words for the successful gaming performance. Third, the majority of gamers believed that playing computer games in English helped them to develop such study skills as timing, experimenting, learning from failure, practicing, listening to other students and to teachers, multitasking, setting aims, and finding solutions to achieve goals.

The present study was very small and thus generalizations cannot be made. However, the results suggest some tendencies that could be explored in more thorough studies in the future. It appears that computer games not only motivate the language learners to engage in gaming and comprehend the vocabulary but the games also improve their learning competence. Moreover, the majority of participants admitted that they do not always understand the words in the games and revealed how they dealt with new vocabulary. This shows that the participants were eager to learn the words, even on their own, outside of school, in order to be able to play the games. Hence, it can be said that computer games in English can be used as a motivating tool in terms of the language lessons at schools or as an educational extramural activities.

Notably, the participants of the study mostly agreed that computer games in English could be included into English language lessons at schools in Estonia which means that participants believe in the usefulness of computer games for learning English.. It also means that participants acknowledged throughout the study that the games both motivate them to learn English, and not only improve their skills (e.g. technical, language, communication, problem-solving, strategizing) but develop their study skills. Nevertheless, while gaming in English can be considered beneficial for learning vocabulary, it should be considered by the teachers of English that some games may not be appropriate for players under the age of eighteen.

All things considered, it can be emphasised that while seven participants of the study admitted that they did not engage in playing computer games in English, the gamer participants (8 out of total 15) on the other hand shared the reasons they tended to play the games in English, and also their motivation to make an effort to learn the words in the process of gaming. Furthermore, seven of the gamer participants believed that gaming improved their skills, and five of them assumed that it developed their study skills. Regarding the future, seven participants of the study found that computer games could be used in the English language lessons at schools in Estonia. The language teachers could hence consider the possibilities to take an advantage of the digital world that the students nowadays frequently belong to. However, in terms of the future research of this matter, and an opportunity to generalise, it is sensible to conduct a wider scale study involving more participants.

#### **2.4. Discussion and the potential of the further research**

While previous research has suggested that gaming in English has both a positive impact on learners' skills development and learners' language studies, the present study emphasises that computer games in English could be used for expanding learners' vocabulary as a part of language lessons at schools in Estonia. Compared to other studies, this study asked participants to name the exact skills and study skills which they believed they had improved or developed while gaming in English. Moreover, the participants of the study pointed out the reasons they were motivated to learn new words through gaming. Nevertheless, it is important to mention that two similar studies found that students who watch others' gaming can also benefit from these sessions. It can be explained by the fact that computer games often are equivalent to films, music videos or song lyrics because they tend to introduce a story and the vocabulary linked to that plot. Previous research has also highlighted that the students are nowadays exposed to technology (and the games) which makes it clear that the language teachers can use gaming for the purpose of teaching new vocabulary. Yet, while most learners acknowledge the reasons they are motivated to play the games in English and comprehend new words, it can be suggested that gaming can improve such learners' skills as multitasking, navigating through different information flows, non-linear ways of behaving, learning through investigation, and collaboration (Ulicsak and Williamson 2010: 20).

However, since the results of the present study do not allow generalisation, further research should consider including both additional participants and additional information. First, a larger scale study (approximately 100 participants in total) is likely to provide more detail. For instance, further research could distinguish between the beliefs of various age groups, e.g. teenage and adult students. It would also be possible to find differences in the beliefs and game preferences of males and females. Furthermore, it can be investigated if

the participants believe that playing computer games in English has a positive impact on improving listening, speaking, reading and writing in terms of the school curricula, and why the participants think so. It can also be found out what type of new words the participants tend to learn through gaming, e.g. contextual terminology, phrasal verbs, slang, etc, and whether the participants apply their knowledge at school. Moreover, interviewing some of the gamer participants to clarify whether they have always believed that playing computer games developed their skills, including study skills, could help to identify if they play to improve their skills.

## CONCLUSION

There are several reasons for language teachers to consider using computer games in teaching. Since gaming in English is popular among all age groups, teachers of English can decide whether to take advantage of computer gaming and the learning perks it offers for the students. While many computer games commonly introduce rules, aims, challenge, interaction, outcome and feedback (Reinders 2016: 4), the games have been shown in many studies to motivate player-students and to have a positive impact on the development of various useful skills.

Specifically, according to previous research and the current study, the need to comprehend new words in the games motivates gamers not only to learn the words in order to achieve success in games but to use the learnt vocabulary in other contexts, e.g. during lessons of English, travel or online communication. Hence, it can be supposed that the knowledge gained through computer games complements and enriches gamers' overall English language competence. Furthermore, considering study skills, computer games can positively impact the awareness of learners' own strengths and weaknesses, ability to identify needs and goals, and to organise strategies and procedures to pursue these goals. The participants of the current study believed that gaming in English helped them to develop such study skills as timing, experimenting, learning from failure, practicing, listening to other students and to teachers, multitasking, setting aims, and finding solutions to achieve goals. When it comes to computer games and learning vocabulary, the students tend to enjoy the process and find it engaging since the games are usually played by choice. However, during it, gamers either acquire or learn English and, either consciously or subconsciously, tend to sharpen their skills.

As learners (and teachers) today are mostly technically and digitally competent, language teachers should consider combining online activities such as computer games in English with other learning activities when designing language classes. For language learners, games are likely to create a motivating study environment, either at school or outside of school. While learners are widely exposed to contextual terminology in the games, they also develop several skills, including study skills when gaming. Therefore, computer games can not only stimulate the vocabulary learning process but they can help gamers to practice various cognitive skills.

While this thesis helped to shed light on computer games' importance in learning English, the students' motivation to learn new vocabulary and the improvement of their skills through gaming, there are many aspects of this topic which can further be examined in order to draw attention to the possibility of incorporating computer games into the English L2 language lessons in Estonia.

## REFERENCES

- Alshawi, Wadeah. 2016. *Using Video Games to Increase Motivation of Saudi Students Learning English (PhD)*. Detroit: Wayne State University. Available at [https://digitalcommons.wayne.edu/cgi/viewcontent.cgi?article=2421&context=oa\\_dissertations](https://digitalcommons.wayne.edu/cgi/viewcontent.cgi?article=2421&context=oa_dissertations), accessed February 24, 2021.
- Ashraf, Hamid; Motlagh, Fateme Ghanei; Salami, Maryam. 2014. The Impact of Online Games on Learning English Vocabulary by Iranian (Low-intermediate) EFL Learners. *Procedia – Social and Behavioral Sciences*, 98, 286-291. Available at <https://core.ac.uk/download/pdf/82696005.pdf>, accessed February 24, 2021.
- Banditvilai, Choosri. 2016. Enhancing Students' Language Skills through Blended Learning. *The Electronic Journal of e-Learning*, 14: 3, 220-229. Available at <https://files.eric.ed.gov/fulltext/EJ1107134.pdf>, accessed February 19, 2021.
- Chapelle, Carol Ann; Sauro, Shannon. 2019. Digital gaming in L2 teaching and learning. In Carol Ann Chapelle and Shannon Sauro (eds). *The Handbook of Technology in Second Language Teaching and Learning*. Hoboken: Wiley-Blackwell. Available at <https://www.wiley.com/en-us/The+Handbook+of+Technology+and+Second+Language+Teaching+and+Learning-p-9781119108474>, accessed May 14, 2021.
- Common European Framework of Reference for Languages. 1971. Cambridge: Cambridge University Press. Available at <https://rm.coe.int/16802fc1bf>, accessed February 19, 2021.
- deHaan, Jonathan; Reed, Michael; Kuwada, Katsuko. 2010. The Effect of Interactivity with a Music Video Game on Second Language Vocabulary Recall. *Language*

*learning & Technology*, 14: 2, 74-94. Available at [https://scholarspace.manoa.hawaii.edu/bitstream/10125/44215/1/14\\_02\\_dehaanreed\\_kuwada.pdf](https://scholarspace.manoa.hawaii.edu/bitstream/10125/44215/1/14_02_dehaanreed_kuwada.pdf), accessed February 24, 2021.

Ebrahimzadeh, Mohsen; Alavi, Sepideh. 2017. The Effect of Digital Video Games on EFL Students' Language learning Motivation. *Teaching English with Technology*, 17: 2, 87-112. Available at <https://files.eric.ed.gov/fulltext/EJ1140688.pdf>, accessed February 24, 2021.

Galvis, Héctor Alejandro. 2015. Laying the foundations for video-game based language instruction for the teaching of EFL. *HOW*, 22: 1, 107-122. Available at <https://dialnet.unirioja.es/descarga/articulo/5249753.pdf>, accessed February 22, 2021.

Guerrero, Mario. 2015. Motivation in Second Language learning: A Historical Overview and Its Relevance in a Public High School in Pasto, Colombia. *HOW*, 22: 1, 95-106. Available at <https://files.eric.ed.gov/fulltext/EJ1127944.pdf>, accessed February 19, 2021.

Hansen, Jonas Bjørnkå. 2018. Computer Games and ESL Learning. MA thesis, University of Agder. Available at <https://uia.brage.unit.no/uia-xmlui/bitstream/handle/11250/2564599/Hansen,%20Jonas%20Bj%C3%B8rk%C3%A5.pdf?sequence=1>, accessed February 23, 2021.

Horowitz, Kenneth. 2019. Video Games and English as a Second Language: The Effect of Massive Multiplayer Online Video Games on the Willingness to Communicate and Communicative Anxiety of College Students in Puerto Rico. *American Journal of*

- Play*, 11: 3, 379-410. Available at <https://files.eric.ed.gov/fulltext/EJ1220304.pdf>, accessed February 22, 2021.
- Jones, Ryan Christopher. 2003. Sense of belonging and its relationship with quality of life and symptom distress among undergraduate college students. BA thesis in Psychology, Oklahoma State University. Available at <http://citeseerx.ist.psu.edu/viewdoc/download?doi=10.1.1.428.4027&rep=rep1&type=pdf>, accessed February 20, 2021.
- Liu, Xiongyi; Wang, Lih-Ching Chen. 2017. Motivation, Learning Strategies, and Language Competency in a Technology Facilitated Chinese as a Second Language Classroom. *Chinese Language Teaching Methodology and Technology*, 1: 2, 1-8. Cleveland: Cleveland State University. Available at <https://core.ac.uk/download/pdf/216951986.pdf>, accessed February 19, 2021.
- Mitchell, Alice; Savill-Smith, Carol. 2004. The use of computer and video games for learning. London: Learning and Skills Development Agency. Available at [https://dera.ioe.ac.uk/5270/7/041529\\_Redacted.pdf](https://dera.ioe.ac.uk/5270/7/041529_Redacted.pdf), accessed February 25, 2021.
- National Curriculum for Basic Schools. 2014. *Subject field: Foreign languages*, 1-31. Available at [https://www.hm.ee/sites/default/files/est\\_basic\\_school\\_nat\\_cur\\_2014\\_appendix\\_2\\_final.pdf](https://www.hm.ee/sites/default/files/est_basic_school_nat_cur_2014_appendix_2_final.pdf), accessed February 21, 2021.
- National Curriculum for Upper Secondary Schools. 2014. *Subject field: Foreign languages*, 1-24. Available at [https://www.hm.ee/sites/default/files/est\\_upper\\_secondary\\_nat\\_cur\\_2014\\_appendix\\_2\\_final.pdf](https://www.hm.ee/sites/default/files/est_upper_secondary_nat_cur_2014_appendix_2_final.pdf), accessed February 21, 2021.

Panagiotidis, Panagiotis; Krystalli, Pinelopi; Arvanitis, Panagiotis. 2018. Technology as a Motivational Factor in Foreign Language learning. *European Journal of Education*, 1: 3, 43-52. Available at [http://journals.euser.org/files/articles/ejed\\_v1\\_i3\\_18/Panagiotidis.pdf](http://journals.euser.org/files/articles/ejed_v1_i3_18/Panagiotidis.pdf), accessed February 19, 2021.

Ranalli, Jim. 2008. Learning English with The Sims: exploiting authentic computer simulation games for L2 learning. Available at <https://core.ac.uk/download/pdf/38942115.pdf>, accessed February 22, 2021.

Reinders, Hayo. 2016. Digital Games and Second Language learning. Available at [https://www.researchgate.net/publication/319382475\\_Digital\\_Games\\_and\\_Second\\_Language\\_Learning](https://www.researchgate.net/publication/319382475_Digital_Games_and_Second_Language_Learning), accessed February 22, 2021.

Riigi Teataja. 2020. Basic Schools and Upper Secondary Schools Act. Tallinn: Riigikogu. Available at <https://www.riigiteataja.ee/en/eli/ee/530102013023/consolide/current>, accessed February 19, 2021.

Sakel, Jeanette. 2015. Study Skills for Linguistics. London: Routledge. Available at <https://www.routledge.com/Study-Skills-for-Linguistics/Sakel/p/book/9780415720465>, accessed May 14, 2021.

Serafin, Małgorzata. 2016. The influence of computer games on second language acquisition. *Edutainment*, 2016, 79-86. Available at <https://jecs.pl/index.php/EDUT/article/view/10.15503.edut.2016.1.79.86/pdf>, accessed February 22, 2021.

- Simpson, Sarah. 2015. Essential Study Skills. Available at <http://thuvienso.bvu.edu.vn/bitstream/TVDHBRVT/15286/1/Essential-Study-Skills.pdf>, accessed February 19, 2021.
- Smythe, Ian. 2012. Dyslexia and Additional Academic Language Learning Module 7 - Study skills. Newport: University of South Wales. Available at [http://dyscovery.research.southwales.ac.uk/media/files/documents/2014-01-16/Module\\_7.pdf](http://dyscovery.research.southwales.ac.uk/media/files/documents/2014-01-16/Module_7.pdf), accessed February 19, 2021.
- Sung, Ko-Yin. 2013. L2 motivation in foreign language learning. *Journal of Language and Linguistic Studies*, 9: 2, 19-30. Available at <http://www.jlls.org/vol9no2/19-30.pdf>, accessed February 19, 2021.
- Sylvén, Liss Kerstin; Sundqvist, Pia. 2012. Gaming as extramural English L2 learning and L2 proficiency among young learners. *ReCALL*, 24: 3, 301-321. Available at [https://www5.kau.se/sites/default/files/Dokument/subpage/2014/01/sylv\\_n\\_sundqvist\\_2012\\_recall\\_gaming\\_pdf\\_41236.pdf](https://www5.kau.se/sites/default/files/Dokument/subpage/2014/01/sylv_n_sundqvist_2012_recall_gaming_pdf_41236.pdf), accessed February 22, 2021.
- Theodorsen, Jørgen Haug. 2015. L2 acquisition from video games with minimal exposure. MA thesis, Norwegian University of Science and Technology. Available at [https://www.ntnu.edu/documents/1535402/35615794/Master\\_JHT\\_webpublish.PDF/45822bc7-1f36-41dd-ad0b-a803b58454d0](https://www.ntnu.edu/documents/1535402/35615794/Master_JHT_webpublish.PDF/45822bc7-1f36-41dd-ad0b-a803b58454d0), accessed February 22, 2021.
- Ulicsak, Mary; Williamson, Ben. 2010. Computer games and learning. *A Futurelab Handbook*. Available at <https://www.nfer.ac.uk/media/1765/futl01.pdf>, accessed February 25, 2021.

## APPENDICES

### Appendix 1

10.3.2021

Computer games in English for TAG 18-19 y/o students, only!

## Computer games in English for TAG 18-19 y/o students, only!

Dear 18-19 year old students of Tartu Annelinna gymnasium

This questionnaire is important in terms of extramural (kooliväline) education, first. However, thanks to your contribution it can be made clear whether computer games in the English language could be used for educational purposes at large.

Imagine home assignments related to your favourite computer games in English. Sounds interesting? This can be the future of the English language lessons in Estonia.

The questionnaire will take you only about 5 minutes. Your answers will be considered and will help to draw conclusions in an MA study in the University of Tartu. Please make sure that you answer all the questions.

Thanks! :)

Deadline of the questionnaire: 15.03.2021

\* Kohustuslik

1. Do you play computer games in the English language regularly? \*

*Märkige ainult üks ovaal.*

Yes

No

2. How often do you play computer games in the English language? \*

*Märkige ainult üks ovaal.*

- Every day
- Approximately six days a week
- Approximately four days a week
- Approximately two days a week
- Once a week
- Less than once a week
- I rarely play computer games in English
- I do not play computer games in English
- Muu: \_\_\_\_\_

3. What motivates you to play computer games in the English language? \*

*Märkige kõik sobivad.*

- I play for content
- I find it entertaining
- I find it satisfying
- I meet with my friends there
- I am a part of an online community
- It helps me to learn English
- It improves some of my skills
- I do not play computer games in English
- Muu:  \_\_\_\_\_

4. Do you always understand the words in computer games in the English language? \*

*Märkige ainult üks ovaal.*

- Yes
- No
- I do not play computer games in English

## 5. How do you make yourself familiar with the new words? \*

*Märkige kõik sobivad.*

- I always understand all the words in the games in English
- I check their meaning online (e.g. google)
- I guess from the context
- I use them in the same context to check if I was right about the meaning
- I ask my friends
- I ask my teacher
- I ask my parents
- I do not play computer games in English

Muu:  \_\_\_\_\_

## 6. What motivates you to learn new words through computer games in the English language? \*

*Märkige kõik sobivad.*

- I always understand all the words in the games in English
- I want to understand the words in case I see them again
- I feel interested in new words when I see them
- I want to use new words again in the game
- I want to use new words again in another context
- I have to use (or understand) them to achieve success in the game
- I do not play computer games in English

Muu:  \_\_\_\_\_

## 7. Does gaming in the English language help you to improve skills (oskused/ навыки)? E.g. technical, study, language, communication, problem-solving, strategizing, etc. \*

*Märkige ainult üks ovaal.*

- Yes
- No
- Unsure
- I do not play computer games in English

10.3.2021

Computer games in English for TAG 18-19 yo students, only!

8. Which of your skills has gaming in the English language improved? Answers in Estonian or Russian are accepted. \*

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9. Does gaming in the English language help you to develop study skills (õpioskused/учебные навыки)? E.g. Skills which help you to study such as: time management, multitasking, setting goals, learning from failure, etc. \*

*Märkige ainult üks ovaal.*

- Yes
- No
- Unsure
- I do not play computer games in English

10. Which study skills have you developed through playing computer games in the English language? Answers in Estonian or Russian are accepted. \*

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Computer games in English for TAG 18-19 y/o students, only!

11. Do you think that computer games in the English language could be included into the English language syllabus (ainevara/учебный план) at schools in Estonia? \*

*Märkige ainult üks ovaal.*

- Yes
- No
- Unsure

12. Which computer games would you use for learning the English language? \*

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Google pole seda sisu loonud ega heaks kiitnud.

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## RESÜMEE

TARTU ÜLIKOOL

ANGLISTIKA OSAKOND

**Indra Mehine**

### **Motivation and Study Skills in Learning English Vocabulary through Computer Games in Estonia**

### **Motivatsioon ning õpioskused ingliskeelse sõnavara õppimises läbi arvutimängude Eestis**

Magistritöö

2021

Lehekülgede arv: 48

Annotatsioon:

Selle magistritöö eesmärk on uurida motivatsiooni ning õpioskuste arengut ingliskeelse sõnavara õppimisel läbi arvutimängude. Sissejuhatuses antakse üldine ülevaade nii motivatsioonist kui ka õpioskustest, nende arendamisest ja kuidas võib see kasuks tulla inglise keele tundides arvestades tänapäeva tehnoloogia poolt pakutavaid võimalusi, näiteks ingliskeelseid arvutimänge. Magistritöö eesmärgiks on teada saada mis motiveerib 18-19 aastaseid Tartu Annelinna gümnaasiumi õpilasi omandama uut ingliskeelset sõnavara arvutimängudes ja teiseks, milliseid õpioskusi need õpilased usuvad, et nad on ingliskeelseid arvutimänge mängides arendanud.

Esimene peatükk kirjeldab arvutimängude kasulikkust ingliskeelse sõnavara õppimisel tuues näited erinevatest uuringutest. Põhirõhk on arvutimängude kasulikkusel tõstmaks keeleõppijate motivatsiooni esiteks õppida uut sõnavara ja teiseks arendamaks neis erinevaid oskusi ning õpioskusi. Teine peatükk keskendub magistritöö uuringu tutvustamisele, uuringu tulemustele ja nende analüüsile ning tulevikuperspektiivile seoses antud teemaga. Töö tulemustest selgub, et uuringust osa võtnud õpilased usuvad ingliskeelsete arvutimängude kasulikusesse keeleõppes. Sõnavara õppimine on tähtis osa mängust ja seetõttu motiveerivad ingliskeelsed mängud õppijaid uut sõnavara õppima. Samuti leidsid uuringust osa võtnud õpilased, et nende arvates arendavad arvutimängud selliseid õpioskusi nagu näiteks aja planeerimine, katsetamine, eesmärkide seadmine ja lahenduste otsimine eesmärkide saavutamiseks. Vaatamata sellele, et uuringus osalenud vastajate (ja nendest arvutimängude mängijate) arv ei luba magistritööl üldistusi teha, rõhutab töö kokkuvõtte arvutimängude kasulikkust nii inglise keele õppimisel kui ka õpetamisel.

Märksõnad: arvutimängud, inglise keele õpetamine, ingliskeelse sõnavara õppimine, sõnavara, motivatsioon, õpioskused

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MOTIVATION AND STUDY SKILLS IN LEARNING ENGLISH VOCABULARY  
THROUGH COMPUTER GAMES IN ESTONIA

Supervised by Raili Marling

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18.05.2021

Indra Mehine