Videogames as a learning environment:

English language teaching and intercultural communication

Harri Rauhala

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Faculty of Humanities

University of Oulu

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Abstract

The objective of this study is to examine the use of videogames as teaching tools for spoken intercultural communication, and to identify possible obstacles to their use. The materials – the national core curriculum and assorted studies – were examined through close reading. The aim was to identify benefits of using games and possible obstacle-sources. The collected data was analyzed through qualitative content analysis, to sort the findings, and theorize what promotes or obstructs the use of games. Main theoretical framework forms out of the national core curriculum, research on English as lingua franca and research on learning and videogames. The results suggest that videogames are a viable option for learning intercultural communication, but numerous obstacles might inhibit their use. These obstacles include, among others, time constraints, videogame design, and objectives of basic education. In the future, empirical research is required to confirm the viability of using videogames more actively as parts of the Finnish education system.

Tiivistelmä

Tämän tutkielman tavoitteena on tarkastella videopelien käyttöä opetusvälineinä puhutun kulttuurienvälisen kommunikaation opetuksessa, sekä tunnistaa mahdollisia esteitä niiden käytölle. Aineistoa – perusopetuksen opetussuunnitelman perusteita ja valikoituja tutkielmia – tutkittiin lähiluvun kautta. Näin kerättyjä löydöksiä tarkasteltiin kvalitatiivisen sisältöanalyysin kautta. Tavoitteena oli eritellä löydöksiä ja teoretisoida mikä edistää tai estää videopelien käyttöä. Teoreettinen kehys muodostuu perusopetuksen opetussuunnitelmasta, tutkimuksesta englannin kieleen lingua francana sekä tutkimuksesta oppimiseen ja videopeleihin. Tulosten perusteella vaikuttaa siltä, että pelejä voi käyttää kulttuurienvälisen kommunikaation opetuksessa. On kuitenkin huomattava, että useita esteitä niiden käytölle löytyi. Näihin esteisiin lukeutuu muun muassa ajalliset rajoitteet, videopelien suunnittelu sekä perusopetuksen tavoitteet. Tulevaisuudessa tarvitaan empiiristä tutkimusta varmentamaan, onko videopelejä mahdollista hyödyntää nykyistä aktiivisemmin osana suomalaista opetusjärjestelmää.

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1   Introduction

At present, videogames form a mainstream branch of the entertainment industry[1], enjoyed globally by people of various ages and cultural backgrounds, forming a part of everyday life and interest (Ostenson, 2013). As playing games rises in popularity and access to games becomes easier due to advancements in technology and the increasing availability of said technologies, discussion and research on games and their effects on people has also increased. A well-known example would be the discussion of games' effects on the development of children and teenagers, discussion on the negative aspects being likely more known. However, the potential of games as learning tools is increasingly recognized these days, both in- and outside of academia, language learning being only one field of interest (Koivistoinen, 2016). This change of view has given rise to new foci in research, broadening this relatively new field and increasing the viewpoints available to researchers.

Games are also one sign and herald of globalization, introducing players to different cultures, peoples, and languages. Often, especially with single-player games, the games are localized via adding translated audio and subtitles, among other possible changes, to make the game more attractive and available to a broader audience. This is also done with multiplayer-games, but based on my personal experiences, communication between players happens mostly in English, or in some cases through another contact language known by players. However, when using English as a contact language, aside from achieving communication, it helps players improve their linguistic skills and introduces them to different varieties of English, such as dialects, indigenized varieties (so called World Englishes, WEs) and non-native varieties. This can be observed in the increase of English use by younger generations in their free time, though other factors such as internet, movies, other forms of entertainment, and school also influence their language skills. The increased use of English in pupils' free time is noted even in the national core curriculum (OPH, 2014, p. 219; NCC in running text) . This use of English as a contact language is only one practical example of English's modern status – that of a modern lingua franca. Though despite this

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[1] "…almost $25 billion spent on them in 2011," Ostenson (2013, p. 71). Whether this amount is global or national is not clarified. Estimated spending in 2020 almost $160 billion (Wijman, 2020).

status, English as a lingua franca (ELF) is also a relatively new research field (Mauranen, 2018), and how this field and its viewpoints fit English language teaching (ELT) is not yet firmly established, but it appears to be a beneficial addition on ELT (see e.g., Grazzi, 2017).

The effects of globalization can also be seen in Finnish schools, where it emerges both in normal teaching and through various programmes, projects and electronic platforms (such as Erasmus+ and eTwinning). However, taking part in these projects necessarily requires time, funding, equipment and interest from both teachers and pupils. But, as is noted in the NCC, international collaboration can be included into basic education (OPH, 2014, p. 18, 21), and taking games and gamification into account when designing teaching methods is also noted (p. 31), quite explicitly suggesting using games as a possible teaching tool. It should also be noted that teaching ICT skills is already seen as an important part of education in Finland (p. 23). Thus, teaching via games seems both feasible and advantageous. However, there are already various online learning tools available for teachers to use, but according to a study cited by Taalas (2007) most of said tools are exercises on grammar and vocabulary, mostly disregarding the communicative goals of language education. Though this is a relatively old observation, I am inclined to agree with it. This raises the question of how could NCC's instructions on international collaboration and game use be fulfilled while teaching international communication?

To conclude and summarize this introduction, games are a popular form of entertainment which connects people globally, with English as a common contact language used between players in multiplayer environments – at least in the Western world – showcasing ELF use in practice. Whether or not this environment could be used in English teaching remains an open question. Thus, this thesis will focus on how teaching intercultural communication via games with multiplayer features and English as a contact language might be utilized in Finnish schools, by answering the following questions:

- How might teaching spoken international communication with English as contact language benefit from using games as a teaching tool?
- How does the Finnish national core curriculum support and facilitate the use of games as a teaching tool, and what impediments the implementation of games might face, based on the curriculum, video games, and the realities of a teacher's job?

2   Theoretical and methodological framework

This section introduces the theoretical framework and methods used in this study, starting with ELF, the definitions of it and how it is relevant and connected to this thesis and the NCC, continuing with brief discussion on NCC, its legal and theoretical basis, ending with an introduction on research about games and language learning. ELF is used as the main theoretical framework, on which the analysis and argumentation are reflected. Before discussing the theoretical framework further, some clarification on terminology is necessary. The clarifications will be short, as the conception of new terms is not the aim of this thesis.

When discussing learning in formal and informal contexts, I chose to use terms in-class and out-of-class learning. According to Koivistoinen (2016) new views on the meaning of formal and informal language learning are rising in the contemporary global, digital environment, one view being that the two forms of learning should not be differentiated so markedly or not at all and learning ought to be seen as part of everyday life (p. 21). This argument and the connotations associated with terms formal and informal learning form the basis of this choice.

The positive connotations associated with the term 'formal' learning give it a degree of credibility which informal learning lacks due to the negative connotations the term 'informal' has. The terms used in this thesis, however, are more neutral, as they only specify where learning happens, and do not give it any degree of formality. 'Pupil' refers to language learners in basic education (grades 1-9), whereas learner refers to language learners in general. This study also understands 'text' in the same manner as the NCC (OPH, 2014, p. 22), as information shared through "verbal, visual, auditive, numeric, and kinaesthetic" symbols." The reason for this is that video games do not fit a traditional idea of 'text'.

2.1   English as a lingua franca

A lingua franca is defined in Collins COBUILD Dictionary as a way of communication, via a language or other means, by people who do not share a native language (Sinclair, 1987, p. 847), an apt, all-encompassing explanation. This definition is largely shared by ELF researchers (Grazzi, 2017; Jenkins, 2006, 2009; Mauranen, 2018), though as pointed out by Jenkins (2006, 2009), a majority includes native

speakers of English (NSEs) into the definition, as a lingua franca is mostly used in intercultural contexts in which NSEs also partake. The broader definition of a lingua franca is used in this study: English as a lingua franca is a way of communication via English language between peoples of different "linguacultural backgrounds" (Jenkins, 2009, p. 200), including native and non-native speakers of English.

Before going further, the 'way of communication' – or as Jenkins (2009, p. 200), puts it, language use in "specific communicative contexts" – part of the definition must be stressed. Both Jenkins and the dictionary definition separate ELF from a codified variety of language. ELF is not a singular object, but compilation of different varieties and communicative practices which aid communication. Grazzi (2017) mirrors this sentiment, defining ELF as a "natural affordance" appearing in intercultural communication, a tool for interlocutors to communicate with. This stressing of ELF's communicative nature in all the aforementioned definitions is the main reason ELF ought to be 'kept in mind' when designing English as a foreign language (EFL) teaching. The concept is already present in the NCC, for example in the objectives set out for A-syllabus English (OPH, 2014; see objectives 1, 2, 7 and 8, p. 219), but the theory, reasoning and methods are not explicitly explored in the document, likely to give freedom to teachers designing the lessons. Therefore, some benefits of ELF-oriented teaching are discussed next.

The main difference between EFL and ELF-oriented thinking, according to Jenkins (2006, 2009), is that EFL is learned in order to communicate with native speakers – a position which before English's rise as a lingua franca was logical. ELF in turn advocates teaching communicative methods, such as repair strategies and accommodation methods (Grazzi 2017; Jenkins 2009) to achieve intelligibility between interlocutors, teaching about the status of ELF in the world, and according to both Jenkins (2006) and the NCC (2014) about the influence of language on identity. In Grazzi's (2017) words, ELF does not aim to replace standard varieties (Received Pronunciation and American Standard English) as teaching models for English. Even if it were, it would be unachievable due to the above-defined nature of ELF. There is, however, some confusion about the difference between ELF, a "younger research domain" (Mauranen, 2018, p. 107), and the older field of WEs.

As argued by Seidlhofer (2009), the fields share many concepts and ideas. Possibly the most significant shared idea is that of a pluricentric English which "belongs to all those who use it" (Seidlhofer, 2009), instead of a monolithic English variety (Grazzi, 2017; Jenkins, 2006)[2]. Despite these similarities, according to Jenkins (2009), ELF as a concept is criticized by both researchers in- and outside the field of WE, one side accusing ELF of advocating a monocentric view of English, and the second of a "[lack of] any standards[3]" and inclusion of numerous errors in the language. This latter criticism needs to be addressed in the following paragraph.

The main argument of the latter criticism appears to be the supposed lack of grammatical standards which the criticizers perceive the concept advocating, and the presence of errors, or differences from standard varieties of English. In the 2009 article Jenkins explores the position of ELF research on these 'errors' or 'differences', but for the purposes of teaching I chose to mostly ignore this discussion, as the knowledge of the target of criticism – errors and deviation from standard varieties – is enough. As stated before, Grazzi (2017) argues that replacement is not the goal of ELF in teaching, but to make communication one of the guiding principles of ELT. One logical conclusion from these arguments is that teaching English in Finland should still focus on teaching standard varieties or teaching according to the grammatical rules and pronunciation of these varieties, for they are likely recognizable to a larger portion of English speakers world-wide, whether native or non-native. The change to ELT ought to be an increase in communication and number of introduced varieties.

To summarize, this thesis understands ELF not as a codified variety, but as a teaching philosophy advocating increased focus on communication and introduction of numerous English varieties to pupils. Teaching ought to still happen with RP or ASE as a model, as they are established varieties taught around the world, thus likely to be recognizable to a large group of interlocutors, thus being the most useful varieties for pupils later during their lives. The emphasis on teaching communicative methods

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[2] It must be noted that field of WEs studies codified varieties, even if the approach is pluricentric. ELF focuses more on communication.

[3] Here Jenkins likely refers to the perceived lack of standardized rules in ELF, when it is perceived as a codified variety.

should not, however, take precedence over grammar, pronunciation, and vocabulary, as a lacking understanding of these basics will hinder communication.

2.2   Finnish national core curriculum

NCC of Finland is a regulation drafted by the Finnish National Agency for Education (the Agency), based on the Basic Education Act (682/1998), Basic Education Decree (852/1998), Government Decree on the National Objectives for Education Referred to in the Basic Education Act and in the Distribution of Lesson Hours (422/2012 and 378/2014) and Government Decree on Changing the Basic Education Decree (423/2012) (OPH, 2014, p. 9), used as a guideline when writing the local curricula and outlining the targeted learning outcomes (objectives in running text) for pupils. As one can see, NCC has a strong legal basis and is altered when necessary. The version examined in this thesis is the newest national iteration. Though the NCC is has often been revised, it does not mean that it will constantly be altered to suit everyone's needs. Instead, the local education providers have the responsibility of actively developing education and fulfilling the objectives outlined throughout NCC (OPH, 2014, p. 9), giving teachers a significant amount of freedom on deciding how to carry out teaching. However, even if the nature of the NCC is rather a guiding document than a set of specific instructions, it is legally binding.

In the current NCC, a pupil is seen as an active participant in learning, with learning taking place in interaction with other learners, teachers, other adults, communities, and learning environments, be these other people or environments parts of the education system or not (OPH, 2014, p. 17). This view is based on a constructivist and social constructivist view of learning – the learner builds their knowledge through experiences within different communities and environments, actively building and revising knowledge (Siljander, 2002, p. 203). This is a considerable change to older, behavioristic pedagogical views (Piippo, 2009, p. 43). Behavioristic learning sees the pupil as a receiver, who, with enough repetition, would learn the language or other subject being taught. In this newest iteration, it is stressed that "positive feelings, joy of learning and activities creating something new promote learning" – in other words, the learner is not the receiver described in behavioristic theories but is seen instead as a participant described in the beginning of this paragraph, an active, thinking and reasoning being that can be motivated by and take joy in learning. It is also acknowledged that the knowledge

gained in out-of-class contexts is also part of learning and valuable information which should be taken into consideration when designing classes (OPH, 2014, p. 219).

As noted in the first paragraph of this section, the NCC does not give specific instructions on how teaching should take place in practice. This is decided by the teacher based on current pedagogical research, scientific knowledge, and laws and regulations. Thus, the objectives set out in the NCC can be fulfilled in different ways, depending on the teacher.

2.3   Games and learning

The introduction presented the field of videogame studies as a relatively new and still growing field, with a plethora of research foci. In this thesis, research on games and learning were given priority, though even this limitation proved problematic. As shown in a literature review by de Freitas (2018), game studies are a multi-disciplinary field, with "four broad disciplinary categories" that can be identified: education science, game science, neuroscience, and information science. The studies observed in this thesis that examine games and learning are part of education sciences, should they be grouped into one of these four categories. This section examines how games affect learning, and what is required from games in educational contexts.

But, as the focus of this study is on spoken communication, written interaction between players is ignored. Though writing English is an effective way of learning and practicing its natural use, the focus of this study is on the possibility of using games in familiarizing students with different kinds of spoken English. As such, in-game chat functions, forum discussions, streaming service chat functions and other written interaction about games in different social media platforms are outside the scope of this thesis. Many studies concerned with games and learning have focused for example on learning vocabulary (Rasti & Vahdat, 2013) or other skills, such as grapho-motor skills (Padilla-Zea, Gutiérrez, López-Arcos, Abad-Arranz, & Paderewski, 2014), but not so much on spoken communication. However, in all instances some, and in numerous cases notable, benefits have been noted in groups learning with games. In de Freitas' words, games are "overwhelmingly" effective learning tools, especially if used in tandem with traditional teaching methods (2018, p. 80). Piirainen-Marsh and Tainio (2007) made similar observations, remarking how games are made "conducive to learning" as they both entertain

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and motivate, while providing problems for the player to solve. But even if games are useful, integrating them as parts of teaching has some problems.

As asked by de Freitas, "could commercial, off-the-shelf (COTS) games be used (2018, p. 76)?" The answer is yes, but as noted by both de Freitas herself and Padilla-Zea et al. (2014) commercial, entertainment-focused games are challenging to integrate, as they do not fit the traditional education contexts and require time and effort on the teachers' part to use in teaching. One reason for this is the balance between entertainment and education (de Freitas, 2018), or as Padilla-Zea et al. (2014) put it, between "ludic and educative contents". The game needs to be entertaining enough to interest the learner but have enough educative content that learning takes place effectively. Usually in COTS entertainment takes precedence – there are, however, other options available.

So called educational video games (EVGs) offer an alternative to commercial games, though according to the 2014 study by Padilla-Zea et al. referred to previously, the balance in them is often in favour of educational content. This makes them uninteresting to learners in the long run, which is the reason for the aforementioned study: in it, the researchers try to integrate storytelling as a motivating factor into an EVG of their own design. Their findings were promising: EVGs with compelling storylines can be made, if the designers are thorough, but problems for broader use of this kind of EVGs can be noted. These problems will be discussed in section 4.1.

Despite the differing purposes of EVGs and COTS-games, both have been proven to assist language learning. One such study proving this by Piirainen-Marsh and Tainio (2007) analysed the language use and learning through repetition by two teenage boys playing a Japanese role-playing game, Final Fantasy X. The findings themselves were interesting, but more important for this thesis are their observations on the nature of how learning happened in the situation studied. They understand the process as a sociocultural activity, with the players as active participants in the event, in other words, gameplay. I would argue this is close enough to social constructivist view on learning that in this case, learning through games could be called a social constructivist learning situation. The situation studied included only two interlocutors playing one game with no multiplayer features, and still learning through interaction in a group took place. Thus, it appears that games may offer a virtual social

environment which enables learning in a group environment, even if surrounding social activities such as forum discussions are ignored.

2.4   Methodology

The study was conducted via close reading and qualitative content analysis of the NCC and chosen research articles. When reading the NCC, the focus was to identify guidelines and goals governing the general design and objectives of Finnish basic education, and English-specific objectives. Attention was directed at finding those guidelines which would influence the choices in teaching materials and methods, use of games or gamification, and international collaboration. In reading previous research I focused on identifying what features in games made them conducive to learning, arguments for the use of either OCTS or EVGs, and possible impediments identified by researchers.

The objective of the content analysis was to find out how games could be used to aid students in learning international communication, following theory of ELF, how the NCC and Finnish education system might support or impede their use, and how games themselves might support or impede their use in education.

3   Competences, content areas, and objectives

This section briefly elaborates on the choice of the NCC sections studied and introduces the transversal competences, content areas, and objectives set for English teaching in grades 3-6 and 7-9 – foreign language teaching usually begins in grade three – to illustrate how these three topics affect lesson-design and relate to each other.

The task of foreign language teaching is multifaceted and includes both learning of and about the language itself and helping in the formation and appreciation of a "multilingual and -cultural identity" (OPH, 2014, p. 127), and advanced syllabus (A-syllabus) language teaching also aims at waking the pupils' interest towards the linguistic and cultural identity surrounding them, preparing them for working in groups of diverse composition and making them trust their own linguistic and communicative competences. A-syllabus English was chosen, as studying this syllabus is common, it offers the broadest basis for discussion, and is the only syllabus for English discussed in the NCC. Other, lower-level syllabi for English are adapted from B1 or B2 syllabi of foreign languages only when needed.

The transversal competences establish the broad guidelines of the Finnish education, influencing the teaching of all subjects, be it a language or natural sciences, with the objective of developing the learner as a member of society and teach civic skills. For example, competence 1 (L1) is titled "thinking and learning to learn" (p. 20). However, not all the competences were found relevant for this thesis, and were not analysed further, aside from some excerpts. Competences 2, 4, and 5 (L2, L4, L5) in turn are of interest: these competences can be summarized in order as cultural competence, multiliteracy and information and communication technology (ICT) skills. All the competences are introduced in chapter 3 of the NCC, but each of them is further specified in later chapters: different aspects of the competences are emphasized depending on the grades in question, with the emphasis changes divided into segments of grades 1-2, 3-6, and 7-9. For the purposes of this thesis, no specified version is chosen as the focus, but the general level description of NCC section 3.3 (p. 20). Each of the three introduced competences will be discussed more in section 4.

The content areas are similarly divided as the competences, with different foci for each area. They differ from the competences in that the content areas are subject-specific – the competences are general in

nature – and differ between grades at which the subject is taught. For example, the three content areas (S1-S3, pp. 220 & 353) for A-syllabus English of all grades, would translate in order as "growth into cultural diversity and language awareness", "language studying skills", and "developing language proficiency, ability to work in interaction, interpret, and produce texts". The contents of these areas, however, change between grades 3-6 and 7-9: for example, during grades 3-6, S1 focuses on familiarizing pupils with English language and culture, and learning how to manage with weak linguistic competence. During grades 7-9 (p. 353) the focus of S1 switches to more in-depth examination of English and features associated with it, for example the status of English in the modern world, cultures of the Anglosphere, and introducing linguistic terms that may help the pupils in their language studies. In short, the content areas switch from a general introduction and teaching of the language to more advanced topics.

The introduction-to-advanced development of the content areas is followed by the objectives outlined for English and are similarly grade-dependent. However, the individual items would be too numerous to cover in writing, so they are copied untranslated in the appendices. In general, the objectives are more specific and practical guidelines for teachers on what to focus when teaching. For example, objectives one and three for grades three to six (T1 & T3, p. 219) instruct teachers to guide pupils to take note of the cultural wealth of the world around them and of the status of English in global communication and "guide them in observing connective features between languages and improving their linguistic deduction skills".

In summary, all three levels of guidelines are connected: they either specify the broader topics so teachers know what to focus on or set the more specific topics into wider contexts. Therefore, all levels must be considered when analysing what teaching methods and topics for classes the NCC outlines, to better understand what the document proposes and instructs.

4 Benefits and impediments

This section is divided into two subsections, "Games and teaching English" and "Impeded implementation". The first subsection answers the first research question by discussing how ELT in Finland might benefit from using games as teaching tools. The second subsection analyses how the NCC might facilitate and impede the use of games, in short, what problems one might face when implementing games into the education system, thus answering the second research question. The answers may be in part intertwined.

4.1 Games and teaching English

As indicated in section 2.2, learning is currently seen as a social process between the learner and their environment and surrounding community, where learner is an active participant. Based on the study by Piirainen-Marsh and Tainio (2007) we established in section 2.3 that games can provide a learning environment where such learning can take place: the learner actively takes part in an environment which is designed to motivate the player to interact with the virtual game world, in Piirainen-Marsh and Tainio's words "to move in the game's world more and more fluidly" (p. 161). Here one should note that the game studied was a single player game. The social interaction in the study happened between two interlocutors, one playing the game and the other watching and talking with the player. A game with multiplayer features enables different players of the same game to interact with one another within the game, while participating in in-game activities. Often the players share a goal in these activities, encouraging teamwork in solving them. This appears a good argument on behalf of implementation of games: a social environment with activities where the players can share a goal to work towards, with a possibility to communicate with other players. In summary, a motivating, social learning environment.

As was written, multiplayer games enable interaction with other players. This is often done via an in-game chat function, sometimes even a voice chat. However, using applications such as Zoom, Microsoft Teams or Discord in tandem with games offers a practical and easy way for spoken interaction, should voice chat not be available in-game. This offers a chance for authentic intercultural communication. Here, authentic communication is understood as any form of direct communication between two or

more interlocutors, taking place in person or digitally. Though as mentioned in the first research question and section 2.3, the focus of this thesis is on spoken communication, so forms of written communication, such as forum discussions or the aforementioned chat function are ignored, as they are outside the scope of this study. By using applications to establish spoken communication in an intercultural setting, one could fulfil multiple goals set out in the NCC, both subject-specific objectives and transversal competences. These will be discussed next.

As noted in the introduction, the NCC states that intercultural collaboration can and should be introduced to education when meaningful and possible. It is also stated as one of the A-syllabus English's objectives on learning environments and methods for grades 7-9 (OPH, 2014, p. 350). It would also partially fulfil objectives six to ten of said grades. To summarize, the purpose of these objectives is to aid pupils in successful communication and text production, on topics which suit their experiences and growth, for diverse purposes, while guiding them in recognizing the relation between communication and culture. All this while taking pronunciation and grammar into account, as instructed in objective ten. Using communication applications could fulfil these objectives in an authentic setting. Naturally one can use only the applications and create joint projects for pupils of different nationalities to work on. These, however, might be more complex exercises and projects. Games offer an environment for simple exercises. If the goal is to only practice intercultural communication and speaking themselves, such an environment could be useful.

The aforementioned transversal competences would be two and five, cultural competence and ICT skills (L2 & L5, pp. 21-23). L2 aims to guide pupils so that they learn to appreciate both their own and others' linguacultural backgrounds, and to learn communication, interaction, and self-expression. It is also noted that intercultural collaboration is one way to allow students the chance to learn "respect and trust" towards other people (p. 21). L5, in turn, instructs pupils should be taught how to use ICT safely and responsibly, how to use ICT and develop their ICT skills, and help them practice its use in communication and networking. One could also argue that using both games and communication applications practicing L4 (p. 22) is possible. L4, multiliteracy, is concerned with aiding pupils in learning to interpret, produce, and judge the value of different texts. By using games as teaching tools, teachers could help pupils understand better how games tell stories, how they affect pupils themselves, and

what is the function of games in the contemporary world. And, as indicated above, ICT technology allows pupils to improve their speech and listening comprehension.

Examples of ICT use in educational and ELF contexts include studies by Grazzi (2016; 2017) and a dissertation by Koivistoinen (2016). Only Koivistoinen examined both activities which included synchronous spoken communication and pupils' thoughts on the project. Based on the pupils' comments presented in the dissertation, it appeared that they were interested in intercultural online activities, as it was a chance to use English in an authentic setting with a proper objective in mind, namely, successful communication with foreigners, which differs from normal classroom exercises, where most students may share a first language. Overall, Finnish pupils evaluated the project positively, even though some disclosed fears beforehand. During the project, most pupils were enthusiastic, which could be said to be true for the participants in Grazzi's studies, as all were volunteers (2016; 2017). However, some of Koivistoinen's participants complained that they felt like they had not "'been taught anything', that is, in the way expected in a traditional classroom" (2016, p. 40). Koivistoinen also observes that changing from "traditional language classroom" to direct "social action" was quite natural for the pupils, "which suggests that the pupils were ready for interaction in the virtual learning environment" (Koivistoinen, 2016, pp. 43-44). It appears that intercultural online activities, which varies the ways learning happens in a class, can be effective learning methods, if the students are also clearly taught something.

By implementing intercultural communication into teaching, teachers could give their pupils a good opportunity to improve their communication skills in accordance with both the NCC and ELF theory. Pupils would be exposed to different, non-native varieties of English. This could help pupils understand that non-native pronunciation and differing levels of proficiency are normal, especially on a global scale. It might also help them learn different communication strategies, such as meaning negotiation, paraphrasing, or codeswitching. This might help them use English more actively in the long run, despite possible self-belief of a lacking proficiency. It would also prepare them for global communication both in work and personal life, as majority of the world's population are not native English speakers, so they likely have different varieties which they speak. Such exposure to non-native varieties could also help

pupils understand the position of English as a lingua franca, and importance of mutual intelligibility, even if neither interlocutor is completely fluent in the chosen lingua franca.

Another useful aspect of using games could be the change in learning methods. The NCC emphasizes that pupils learn differently, and teachers should employ diverse teaching methods. The choice of method is based on knowing the students, the objectives of education, and the needs and interests of pupils (OPH, 2014, p. 30). Videogames could be one of those interests. In his article, Ostenson (2013) analyzes his experiences teaching English class focusing on storytelling in high school. The class was not an English as a foreign language class, so no direct comparisons can be made between the subject of this study and Ostenson's, but many of his observations remain relevant. When first bringing up the subject of games as storytelling devices in his class, he noted how "some students [perked] up and [sat] up straighter in their seats" (p. 73).

Games interest contemporary youth and young adults – it thus seems likely that pupils in Finland might be interested in learning through games. Using games would also make the lessons more variable. Ostenson also makes a convincing argument on the nature of contemporary games: he argues that currently, games are "have come a long way from the days of *Pong* and *Pac-Man*" (p. 71). Modern games tell stories, which people can reflect on both intellectually and emotionally, which makes them a credible subject of study in a similar manner to books and movies. Games also encompass a range of different genres, narrative- and gameplaywise, from crime to fantasy and history (e.g. *Assassin's Creed* series), from adventure and puzzles (e.g. *Professor Layton* series) to simulators and strategy (e.g. *Europa Universalis* series). This diversity offers a broad selection of games for teachers and other professionals in education to choose from, making it possible to adapt to different topics or even subjects when teaching. And even if teaching through games is not feasible, following Ostenson's (2013) example and teaching about games in a similar manner one would teach about literature, how they affect the readers of a story, what they teach, might be considered.

In summary, games offer a virtual, socially interactive environment in which players can interact with one another and the virtual world. When a communication application, such as Zoom is used at the same time, players can talk with one another, allowing intercultural communication between players.

This would also fulfil objectives of English teaching and transversal competences as outlined in the NCC and follow the theory of ELF-oriented English teaching. Teaching pupils about the status of games, how games affect the players, and how they form narratives and tell stories could also be achieved, and most pupils would likely have interest in such topics. However, there are numerous factors which impede the use of games in education, which will be discussed in the next section.

4.2   Impeded implementation

The previous section established that games could be beneficial to teaching English, from a social constructivist point of view. They also promote intercultural communication between players. There are, however, impediments to their implementation into education. These impediments can be roughly divided into two categories: firstly, there are causes originating in games and secondly, causes originating in the NCC and teaching as a profession. These impediments mostly affect either teaching, or the implementation of games in practice. Time constraints and the status of games among older teachers and parents are examples of such impediments. The discussion does not follow a rigid order, as both sources affect each other to some capacity.

As observed in the previous section, games motivate the player to interact with the game, and in multiplayers with each other. This is, however, a problem from an educational point of view. As already discussed in section 2.3, commercial games tend to be too interesting for the players in an educational setting. Their focus might be drawn to the game, and achieving objectives within it, instead of focusing on the educational objectives outlined in the NCC. This appears problematic for teachers, who would have to design teaching activities which both suit the game and facilitate learning, while keeping the objectives of Finnish education system in mind. These activities would have to retain both the motivational factor of games and fulfil educational objectives. This narrows down the number of commercial, entertainment-focused games which teachers could use. The game must be free-form enough that teachers can relatively easily design exercises and learning situations, but still include a clear motivational factor.

Using EVGs is a much-researched possibility, as using COTS can be difficult, as established above. However, two problem sources on EVG use can be identified: motivation and the designing of a game. As was observed in section 2.3, the balance in content in EVGs is often on the educational content, instead of entertainment. Designers of EVGs would need to take the motivational factor into account. This problem of content balance, which goes both ways, makes both the possible use of COTS and EVGs problematic. Good results might be achieved via active cooperation between professional game designers and professionals in education, both guaranteeing the educational content fulfills the objectives of the NCC, and that the content is entertaining enough for players to enjoy it, even if the activity is teacher-led. It would seem, however, that designing EVGs to larger and older target groups may be problematic.

In their study, Padilla-Zea et al. (2014) elaborate on their project of designing an EVG to a target group between ages three and seven. The objective of the game was to train their grapho-motor skills. In the study, they successfully integrated storytelling as a part of the game, to motivate the players. The problem is that, while successful, the process appears rather complicated for a singleplayer game with a small target group and a single objective. Designing a game for older students would require more complexity from the game, in both the activities and storyline or other motivating factors, while remaining adaptable so that teachers could design different kinds of learning activities around it. In this, COTS could be useful, as many COTS would be easy enough to adapt for different target groups. Using COTS could also bypass or at least alleviate the next impediment, financing.

De Freitas (2018) gives a rather compelling argument in regard to game design budget: the funding of some larger COTS is in a class of its own. De Freitas cites Grand Theft Auto V as an example of such games with its budget of $265M. Naturally games can be made at much lower cost but using COTS that are already available would leave the possible design costs of the EVG to be allocated elsewhere. In other words, using COTS could be cheaper, as only the equipment necessary for playing a game and communicating as well as the game itself would have to be bought – and said equipment can also be used for more traditional learning.

Another financial concern is the free nature of Finnish basic education. This includes all used teaching materials, such as books, applications, and computers. As it is likely most schools in Finland have at least some computers or tablets for student use, it is possible that no large investments on hardware would be needed, aside from microphones or such equipment required for spoken interaction. Using pupils' own devices requires a proper reason and permission to use. However, buying game licenses for all students to use would likely cost a significant sum, as would licenses for communication applications.

Another game-related impediment is the status of games. In the study by Ostenson (2013) referred to in the previous section, the possible view some parents, teachers and other educational staff might have on games is aptly demonstrated in two sentences:

> I could be describing my reaction to a novel I just finished or a movie I've just watched, and many of you readers would think nothing of my response—in fact, you might recall similar emotional responses you've had to literature or art. But the previous paragraph describes my (very real) reaction to the ending cinematic of a video game…

It can be inferred from this quote that games are not held in the same esteem as 'proper' tools of narration, such as books, movies, or TV shows. The latter three media are well established in contemporary cultures, and it is accepted that they can tell stories which one can reflect on both intellectually and emotionally and provide factual information on varied topics in the form of non-fiction literature and documentaries. Games, on the other hand, established themselves as a part of everyday life during the last three or four decades, and have become even more approachable to wider audiences during the early 21st century. Still, games may appear to provide only entertainment for entertainments sake, instead of the emotional and intellectual experience referred to by Ostenson.

But, as mentioned in both section 4.1 and the previous paragraph, modern games have evolved considerably, both in complexity and approachability, as well as narrative- and genrewise. Though many older games are still all these things, using more modern games or modern iterations of older game series, such as *Minecraft*, *Valheim* or *Civilization*, would have the benefit of being more familiar to pupils, and easier to approach. Proving that games worth in education to those parents, teachers and

others who doubt the benefit of their use is a notable challenge, should one wish to use games in teaching.

One impediment, identified by Grazzi (2017), appears in hindsight rather self-evident. When using games in education, the temporal restriction, in other words, length of the lessons, restricts how a game can be used. This problem will be discussed in more detail later. There is, however, another impediment when conducting intercultural collaboration. As the method of teaching intercultural communication through games as theorized in section 4.1 requires synchronous work from both classes, another form of temporal restriction rises: time zone, and working hours of schools. For example, a Finnish class could not work synchronously with a Japanese class, as the difference in time is six or seven hours, depending on time of year, without significant preparations on both sides. In addition, class times would need to be scheduled so that the classes happen at the same time. This restricts possible collaborative countries to same or nearby time zones as Finland. The impediment of scheduling, however, remains. It should be noted though that this could be taken as a chance for learning global collaboration, for pupils and teachers both.

The previously mentioned temporal impediment of class length is a significant problem of its own. A normal class length for basic education is forty-five minutes, with a ten- or fifteen-minute break in-between. As teachers need to teach pupils in numerous topics regarding English, such as different forms of grammar, culture, and vocabulary, the time for each topic is restricted. Even more so, considering that each of the topics must be practiced thoroughly. Moreover, teachers must plan the lessons and teaching units, grade pupils' works, and so on – in other words, do their job. This heavily restricts what can be accomplished regarding the use of games to teach intercultural communication. One final temporal impediment is distribution of lesson hours, how many hours of a subject is taught in a week. For example, in ninth grade teaching English three times 45 minutes a week is one norm. Not much of the above-mentioned work is possible during only two hours and fifteen minutes.

Another practical impediment would be technical in nature. Different games have different hardware requirements for the device which runs the game. This further limits the choice of games which can be used in teaching: the computer or tablet must be able to run both the game as well as communication

application. Other technical requirements, such as internet bandwidth, may further limit the choice. The teachers would also have to be able to help the pupils, should they encounter technical problems, such as the game freezing or the computer not connecting to the internet. This would be the final impediment: teachers must have enough time to both help and guide pupils, which limits the number of pupils a single teacher is able to teach.

To summarize, impediments to the use of games in teaching international communication in English can be roughly divided into two categories, with the source of the impediments relating to either games or the NCC, teachers, and the Finnish education system. Impediments related to games include game design, status of games and system requirements. Impediments related to NCC, teachers and the Finnish school system include temporal and human constraints. Finally, impediments related to both include finances and motivation-related problems. No solutions were discussed in this section, as more extensive research would be required to offer those.

5   Discussion

Based on the analysis, it seems that games offer a viable option for teaching intercultural communication. As was established in section 2.3, games themselves are conducive to learning, and when played by multiple participants, they create a social learning environment. This social nature of learning through videogames reflects the current social constructivist view on learning prevalent in the NCC, further supporting the possible application of games to Finnish education. It appears that using COTS – should a suitable game be found – is an easier solution than designing an EVG, as COTS already have a diverse selection from which to choose from. This creates possibilities to not only teaching languages, but also other subjects[4]. An example of COTS that could be used for teaching is *Minecraft*. It is adaptable, known to many students, easy to learn, and already has an education edition available. However, the content balance of EVGs can tested and guaranteed in the design phase of the game. They could also be designed specifically with the objectives of the Finnish NCC in mind.

One of the main objectives set for English language teaching in the NCC is to educate pupils in both written and spoken communication. The relatively new field of English as a lingua franca, ELF, offers another point of view on teaching English, complementing the NCC: increasing focus on communication and introducing numerous English varieties – both native and non-native – to pupils. However, pupils should be taught RP or ASE, as they are codified, established varieties known worldwide, and thus likely understood around the globe. Familiarizing pupils with different varieties but teaching them established native varieties could aid them in intercultural communication.

The current iteration of the NCC also establishes intercultural communication and collaboration as one of the objectives of English language teaching, which should be introduced to the local curricula when possible. In addition, the NCC encourages the use of games and gamification in teaching, if possible, and acknowledges the significance of knowledge gained outside classrooms. Linguistic knowledge gained through games is one example of such knowledge, as games have been found to aid in learning

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[4] In history classes, for example, teachers could introduce historical locations through games, when possible.

languages. Games could offer pupils a virtual and social learning environment, which could be used in learning languages through intercultural collaboration.

However, even though games are conducive to learning, numerous impediments to the use of games were identified. These impediments include game content balance, game design, status of games, and temporal constraints. Although these impediments appear rather major in the analysis section, the use of games itself for the purpose suggested in this thesis seems feasible. In other words, if these impediments can be passed, the use of games as a learning environment for spoken communication is seems possible. For example, even though it was found that difference in time zones would allow learning situations only with countries in nearby time zones, the differences in English variations would accomplish the goal of intercultural language learning – the pupils would be familiarized with different variations of English language.

Although the implementation of games into the Finnish education system appears feasible, it should be noted that the research this thesis is based on, as well the impediments and possibilities introduced, are either mostly theoretical or only tested in small scale. It should also be noted that no solutions to the impediments were discussed. As such, future research on this topic should focus on ascertaining the findings of this thesis, as well as testing through large scale empirical research whether games fit the Finnish education system or not. This could be a chance for domestic empirical research on the subject.

6   Conclusions

The aim of this thesis was to analyse the national core curriculum of Finland and relevant research and answer the questions of how teaching spoken international communication benefit form using video games, and how is the use of video games facilitated and impeded.

Based on the analysed studies, games are conducive to learning both languages and other skills. Mostly the impediments to their use lie in the temporal constraints of schoolwork, the perceived status of games, the balance between entertaining and educational content in video games, and the finances of using games in teaching. The temporal constraints affect both the use of games in classrooms as well as in intercultural learning. The perceived status of games might impede their use, unless the benefits of using games in teaching can be proven, both to teachers and parents. The balance of entertaining and educational content affects the choice of usable video games: whether to use commercial, of-the-shelf video games or custom designed educational video games. The finances affect the choice of video games, the possible design of video games, and the purchase of equipment needed to use video games as learning environments.

Despite these impediments, introducing video games into the Finnish education system seems both feasible and beneficial. Games offer a virtual and social learning environment that is likely familiar to many pupils and might motivate those who are usually not very interested in traditional classes. However, more research in larger scale is needed to confirm the findings of this thesis.

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Appendices

A-syllabus English objectives for grades 3-6 (OPH, 2014, p. 243)

Opetuksen tavoitteet	Tavoitteisiin liittyvät sisältöalueet	Laaja-alainen osaaminen
Kasvu kulttuuriseen moninaisuuteen ja kielitietoisuuteen		
T1 ohjata oppilasta havaitsemaan lähiympäristön ja maailman kielellinen ja kulttuurinen runsaus sekä englannin asema globaalin viestinnän kielenä	S1	L2
T2 motivoida oppilasta arvostamaan omaa kieli- ja kulttuuritaustaansa sekä maailman kielellistä ja kulttuurista moninaisuutta ja kohtaamaan ihmisiä ilman arvottavia ennakko-oletuksia	S1	L1, L2
T3 ohjata oppilasta havaitsemaan kieliä yhdistäviä ja erottavia ilmiöitä sekä tukea oppilaan kielellisen päättelykyvyn kehittymistä	S1	L1, L2
T4 ohjata oppilasta ymmärtämään, että englanniksi on saatavilla runsaasti aineistoa ja valitsemaan niistä omaa oppimistaan edistävää, sisällöltään ja vaikeustasoltaan sopivaa aineistoa	S1	L2, L3
Kielenopiskelutaidot		
T5 tutustua yhdessä opetuksen tavoitteisiin ja luoda salliva opiskeluilmapiiri, jossa tärkeintä on viestin välittyminen sekä kannustava yhdessä oppiminen	S2	L1, L3
T6 ohjata oppilasta ottamaan vastuuta omasta kielenopiskelustaan ja kannustaa harjaannuttamaan kielitaitoaan rohkeasti ja myös tieto- ja viestintäteknologiaa	S2	L1, L4, L5, L6

käyttäen sekä kokeilemaan, millaiset tavat oppia kieliä sopivat hänelle parhaiten		
Kehittyvä kielitaito, taito toimia vuorovaikutuksessa		
T7 ohjata oppilasta harjoittelemaan vuorovaikutusta aihepiiriltään monenlaisissa tilanteissa rohkaisten viestinnän jatkumiseen mahdollisista katkoksista huolimatta	S3	L2, L4, L5, L7
T8 rohkaista oppilasta pitämään yllä viestintätilannetta käyttäen monenlaisia viestinnän jatkamisen keinoja	S3	L4
T9 tukea oppilaan viestinnän kulttuurista sopivuutta tarjoamalla mahdollisuuksia harjoitella monipuolisia sosiaalisia tilanteita	S3	L2, L4
Kehittyvä kielitaito, taito tulkita tekstejä		
T10 ohjata oppilasta työskentelemään vaativuudeltaan monentasoisten puhuttujen ja kirjoitettujen tekstien parissa käyttäen erilaisia ymmärtämisstrategioita	S3	L4
Kehittyvä kielitaito, taito tuottaa tekstejä		
T11 tarjota oppilaalle mahdollisuuksia tuottaa puhetta ja kirjoitusta aihepiirejä laajentaen sekä kiinnittäen huomiota myös keskeisiin rakenteisiin ja ääntämisen perussääntöihin	S3	L3, L4, L5, L7

A-syllabus English objectives for grades 7-9 (OPH, 2014, p. 398)

Opetuksen tavoitteet	Tavoitteisiin liittyvät sisältöalueet	Laaja-alainen osaaminen
Kasvu kulttuuriseen moninaisuuteen ja kielitietoisuuteen		
T1 edistää oppilaan taitoa pohtia englannin asemaan ja variantteihin liittyviä ilmiöitä ja arvoja antaa oppilaalle valmiuksia kehittää kulttuurienvälistä toimintakykyä	S1	L1, L2
T2 kannustaa löytämään kiinnostavia englanninkielisiä sisältöjä ja toimintaympäristöjä, jotka laajentavat käsitystä globalisoituvasta maailmasta ja siinä toimimisen mahdollisuuksista	S1	L1, L2
T3 ohjata oppilasta havaitsemaan, millaisia säännönmukaisuuksia englannin kielessä on, miten samoja asioita ilmaistaan muissa kielissä sekä käyttämään kielitiedon käsitteitä oppimisensa tukena	S1	L1, L3
Kielenopiskelutaidot		
T4 rohkaista oppilasta asettamaan tavoitteita, hyödyntämään monipuolisia tapoja oppia englantia ja arvioimaan oppimistaan itsenäisesti ja yhteistyössä sekä ohjata oppilasta myönteiseen vuorovaikutukseen, jossa tärkeintä on viestin välittyminen	S2	L1, L3
T5 kehittää oppilaan itsenäisyyttä soveltaa luovasti kielitaitoaan sekä elinikäisen kieltenopiskelun valmiuksia	S2	L1
Kehittyvä kielitaito, taito toimia vuorovaikutuksessa		
T6 rohkaista oppilasta osallistumaan keskusteluihin monenlaisista oppilaiden ikätasolle ja elämänkokemukseen sopivista aiheista, joissa käsitellään myös mielipiteitä	S3	L4

T7 tukea oppilaan aloitteellisuutta viestinnässä, kompensaatiokeinojen käytössä ja merkitysneuvottelun käymisessä	S3	L4, L6
T8 auttaa oppilasta tunnistamaan viestinnän kulttuurisia piirteitä ja tukea oppilaan rakentavaa kulttuurienvälistä viestintää	S3	L2
Kehittyvä kielitaito, taito tulkita tekstejä		
T9 tarjota oppilaalle mahdollisuuksia kuulla ja lukea monenlaisia itselleen merkityksellisiä yleiskielisiä ja yleistajuisia tekstejä erilaisista lähteistä sekä tulkita niitä käyttäen erilaisia strategioita	S3	L4
Kehittyvä kielitaito, taito tuottaa tekstejä		
T10 ohjata oppilasta tuottamaan sekä puhuttua että kirjoitettua tekstiä erilaisiin tarkoituksiin yleisistä ja itselleen merkityksellisistä aiheista kiinnittäen huomiota rakenteiden monipuolisuuteen ja ohjaten hyvään ääntämiseen	S3	L5, L6