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**The Influence of Playing English-language games on English Language Proficiency:
Dutch Eibo vs. Vvto Pupils**

Abstract

In the Netherlands, there are Eibo primary schools (*Engels in het basisonderwijs*, English in primary education), which offer English education only in the last two years of primary education, and Vvto primary schools (*vroeg vreemdetalenonderwijs*, early foreign language education), which offer English education from the first year. It is important to research the effectiveness of Vvto, as much money is invested in this type of education. Bureau ICE in Culemborg, the Netherlands, contributes to this by creating the *IEP Eindtoets Engels*. This test measures pupils' English language proficiency in levels according to the Common European Framework of Reference (CEFR; Council of Europe, 2001) at the end of primary school, and thus can be used to research possible differences in Eibo and Vvto pupils' CEFR levels, as Vvto pupils, who have had more English education than Eibo pupils, are expected to achieve a higher CEFR level than Eibo pupils. There are many factors which might play a role in pupils' English language proficiency levels, other than early vs. late exposure, however, such as their extracurricular exposure to the English language. Much research has been done on the influence of extracurricular gaming, which can be seen as extracurricular exposure to English, on learners' English language proficiency. The current study researches to what extent there is an influence of extracurricular gaming on Eibo and Vvto pupils' CEFR levels

for English language proficiency. In particular, the study focuses on the time spent on playing English-language games, the games which are played by most pupils, the pupils' CEFR levels for English language proficiency, and a possible correlation between the mean number of minutes spent on gaming and the pupils' CEFR levels. Although the sample size was small, there seemed to be no significant relation between the pupils' CEFR levels and the time they spend on playing English-language games. There was, however, a statistically significant difference in the time spent on playing English-language games between the Eibo and the Vvto pupils. More generalizable results could be given if a future study took into account each Eibo and Vvto school which have taken the *IEP Eindtoets Engels*, as a larger sample size would make the outcomes of statistical tests more reliable. A positive correlation between playing English-language games and pupils' CEFR levels for English language proficiency for both Eibo and Vvto pupils, would perhaps be found.

Keywords: Eibo, Vvto, English language proficiency, CEFR, gaming, extracurricular exposure, *IEP Eindtoets Engels*

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1. Introduction

1.1. *English in Dutch primary education*

English has been a compulsory subject in Dutch primary education since 1986 (de Graaff, 2015). However, schools are allowed to make their own choices with regard to the content of the English lessons, for example the number of hours of English education, the years in which English is offered, the quality of the teachers of English, and the way in which English is taught (van Erkel, Peters, Mulder, and Philipsen, 2013). Large differences can therefore be found in English education in primary schools in the Netherlands. In general, however, a distinction can be made between *Engels in het Basisonderwijs* (henceforth Eibo, English in Primary Education) and *vroeg vreemdetalenonderwijs Engels* (henceforth Vvto, early foreign language education English). Eibo schools, on the one hand, usually start teaching English to pupils in group 7, aged 10 to 11, whereas Vvto school pupils are often taught English from group 1, when they are 4-5 years old. Some Eibo schools teach English from group 5, around the age of 8-9; this is the case for fifteen per cent of all Dutch primary schools, but more and more schools start teaching English to their pupils as early as possible, hence becoming Vvto schools (Bodde & Schokkenbroek, 2013). With regard to the number of hours which schools should spend on English education, the general guideline for Eibo schools is 80 to 100 hours of English education in total, hence 40 to 50 hours per year, as English is only offered in the last two years of primary school (de Graaff, 2015). It was found, however, that the total number of hours of English education was closer to 60 (PPON as cited in De Graaff, 2015). As for Vvto schools, no guidelines had been established yet (Bodde & Schokkenbroek, 2013), but Van Erkel, Peters, Mulder, and Philipsen (2013) did research in order to develop a quality standard for Vvto and concluded with some recommendations. One important recommendation is that Vvto schools start offering English education as early as possible, for at least 60 minutes per week. In short, not only do differences exist between Eibo and Vvto,

but also within Eibo and Vvto; one Eibo school might offer only 60 hours of English education from group 7, and another might offer 100 hours from group 5 or 6 (*Vervroegd Eibo*, Early Eibo). Also, a Vvto school may teach English from group 1 rather extensively, whereas another Vvto school starts teaching English from group 3 and spends just a few more hours on English education annually compared to Eibo. Hence, in some cases it is even possible that more English is taught in an Eibo school than in a Vvto school.

1.2. *Guidelines and final goals of English primary education*

Although the main goals for English primary education have been set nationally, pupils' attainment of English language proficiency at the end of primary education used to be unclear as a final exam had yet to be created. The contemporary main goals consist only of a general description of English primary education; the *Nederlandse Ministerie van Onderwijs, Cultuur en Wetenschap (OCW)*, Dutch Ministry of Education, Culture and Science (2006) did not establish a final attainment. Their key objectives are that pupils learn to:

- acquire information from simple English texts, both spoken and written;
- ask for and give information on simple topics;
- express their own opinion in English;
- write some English words which are used in everyday conversations; and
- learn to look up the meaning and spelling of English words in a dictionary

TuLe (Tussendoelen en leerlijnen bij de kerndoelen voor het basisonderwijs, Sub-goals and curricula for the main goals in primary education) contains some basic principles based on the key objectives of the *Ministerie van OCW*. According to the basic principles proposed in *TuLe*, pupils should be able to attain an A1 level of English at the end of primary

education, based on the Common European Framework of Reference for Languages (CEFR; Council of Europe, 2001; Bodde-Alderlieste, 2008). Later, *Platform Vvto Nederland* (Nuffic, 2011) established the *Landelijke Standaard Vvto Engels*, National Standard Vvto English, in order to ensure high-quality Vvto in the Netherlands; its target levels are A1¹ for pupils who will go to *vmbo* (*voorbereidend middelbaar beroepsonderwijs*, preparatory middle-level vocational education), A1/A2¹⁺² for pupils who will go to *havo* (*hoger algemeen voortgezet onderwijs*, higher general continued education), and A2² for pupils who will go to *vwo* (*voorbereidend wetenschappelijk onderwijs*, pre-university secondary education) after primary school, again based on the CEFR (Council of Europe, 2001). As the *Landelijke Standaard Vvto Engels* is more explicit than *TuLe*, the former is currently used as a national standard for Vvto in the Netherlands. As mentioned in the previous paragraph, Van Erkel, Peters, Mulders, and Philipsen (2013) gave some recommendations on how to ensure a qualitative Vvto:

- schools' view on English education should be clear;
- English education should start as early as possible for at least 60 minutes a week;
- teachers should have good English language proficiency;
- continuous learning in both primary and secondary education should be guaranteed;
- teaching methodology should be important;
- the pupils' progress should be monitored by tests;
- learning results should be evaluated in order for improvement to take place;

¹ The description of an A1 level, according to the Council of Europe, is as follows: "Basic user: Can understand and use familiar everyday expressions and very basic phrases aimed at the satisfaction of needs of a concrete type. Can introduce him/herself and others and can ask and answer questions about personal details such as where he/she lives, people he/she knows and things he/she has. Can interact in a simple way provided the other person talks slowly and clearly and is prepared to help" (2001).

² The description of an A2 level, according to the Council of Europe, is as follows: "Basic user: Can understand sentences and frequently used expressions related to areas of most immediate relevance (e.g. very basic personal and family information, shopping, local geography, employment). Can communicate in simple and routine tasks requiring a simple and direct exchange of information on familiar and routine matters. Can describe experiences and events, dreams, hopes & ambitions and briefly give reasons and explanations for opinions and plans" (2001).

- international activities should be incorporated;
- learning should be stimulated by the schools' and classrooms' appearance; and
- Vvto should be enjoyed.

EarlyBird, TalenT and Cedin are quality marks for Vvto schools which aim at teaching more and better English and starting earlier (EarlyBird, 2017), attaining higher levels of English language proficiency than Eibo schools (Keurmerk TalenT, 2017), and guiding schools and teachers in implementing English in education (Cedin, 2016). Hence, guidelines for Vvto were being established in the first decade of the 21st century, but an exam to test pupils' final attainment in English language proficiency had not been devised until 2014.

1.3. Bureau ICE and Nuffic

Bureau ICE (*Bureau voor Interculturele Evaluatie*, Bureau for Intercultural Evaluation) was the first to develop a final test for the English language proficiency of primary school pupils which was approved by the *Ministerie van OCW* in 2014. Bureau ICE is a Dutch company which creates reliable tests and exams of high quality for primary, secondary, vocational, higher, and Dutch as a second language education, as well as for the business industry (Bureau ICE, 2017a). The final test for English is called the *ICE Eindevaluatie Primair onderwijs Eindtoets Engels* (henceforth *IEP Eindtoets Engels*, ICE Final evaluation Primary education Final test English) and it was commissioned by Nuffic. Nuffic is engaged in internationalisation in education and supports primary schools which offer more extensive foreign language education or start earlier than is legally required. The organisation does so under the assumption that children under seven years of age are able to learn a second or foreign language more easily than older children. Also, Nuffic believes that foreign language acquisition fosters language acquisition in general and creates more international awareness

among pupils (Nuffic, 2016). There was, however, a lack of evidence with regard to the positive effects of Vvto on pupils' English language proficiency. Nuffic therefore contacted Bureau ICE so that a final test for English would be developed. Its goals were to map possible differences in English language proficiency between Eibo and Vvto pupils and to eventually aid the transition from primary to secondary education (Bureau ICE, 2016a). The next section explains how the results of the *IEP Eindtoets Engels* can be used to investigate whether the time spent on extracurricular English exposure, namely in the form of playing English-language games, influences the CEFR level for English language proficiency.

1.4. Research topic

At the present time, English is learned differently in the Netherlands than some decades ago, through watching TV and videos on YouTube, playing games, and the introduction of social media platforms, instead of learning English in educational settings only (Herkendaal as cited in Bos, Fokkens, & Van Baalen, 2017). Extracurricular exposure to English can, however, result in major differences in English language proficiency levels among pupils; as some pupils have had more extracurricular exposure to English than others, it can be difficult for teachers to differentiate among pupils who have had much extracurricular English exposure and those who have not (Herkendaal as cited in Bos, Fokkens, & Van Baalen, 2017). The *IEP Eindtoets Engels*, developed by Bureau ICE, tests the English language proficiency of pupils in group 8 of primary school. According to Blondin et al. (1998), Donato, Tucker, Wudthayagom, and Igarashi, (2000) and Cenoz (2003), children who start learning English at an early age have more positive attitudes towards the English language and they are more motivated than children who are exposed to English later in life. However, it is problematic to claim that, for example, high English language proficiency is caused by early and intensive English education, or that low English language proficiency is the consequence of a rather late

start; there are, in fact, many factors which may play a role in the final attainment of English language proficiency other than the type of English education provided at school. Van den Broek, de Graaff, Unsworth, and Van der Zee (2014) were involved in the pilot study TPO (*Tweetalig Primair Onderwijs*, Bilingual Primary Education) and found eight external factors which might have an influence on the pupils' English language proficiency final attainment. These factors include linguistic distance, exposure to the second language (L2), motivation, cognitive skills, socioeconomic status, first language (L1) background, the quality of schools, and teacher expectations (van den Broek et al., 2014). This paper will focus on the potential role of one of these factors, namely exposure to the second language, on influencing English language proficiency. To be more specific, the current study revolves around the possible influence of playing English-language games, as extracurricular second language exposure, on pupils' English language proficiency at the end of primary education. In short, this paper attempts to find out if there is a relationship between English language proficiency, as demonstrated by the results of the *IEP Eindtoets Engels*, and the pupils' exposure to English through extracurricular English input in the form of playing English-language games.

The structure of this paper is as follows: Chapter 2 presents a theoretical framework in which previous research on English in Dutch primary education and the influence of various extracurricular activities on (language) learning are analysed. Then, I formulate the main research question and some sub-questions, which are accompanied by hypotheses in Chapter 3. After that, I will explain the method in Chapter 4. Chapter 5 presents the results of the current research, after which the discussion in Chapter 6 deals with an interpretation of the results. This chapter also contains a connection to the theoretical framework, given in Chapter 2, in which I mention similar and contrasting findings, explanations for the results, and the implications of the findings. Chapter 7 summarizes the main research findings, reflects upon

the methodological approach and the limitations of the findings, and gives some suggestions for future research.

2. Theoretical framework

The following paragraph discusses previous research on extracurricular exposure to a foreign language in more detail and summarizes their main research findings. First, I introduce some studies which deal with the relation between language exposure both inside and outside of the classroom, and language learning (Gradman & Hanania, 1991; Hoogendoorn & Philipsen, 2013). After that, a number of studies are discussed which focus on the role of playing English-language games and other technologies in learning in general and language learning in particular (Sefton-Green, 2004; Kuppens, 2010). I also make a distinction between research on the influence of popular games on language learning, and those developed for educational purposes. Serious games are discussed in sections 2.1. and 2.2. Section 2.2 also deals with research on the influence of popular games, as the current study takes into account both educational and non-educational games, whereas section 2.3 focuses solely on games for non-educational purposes (Rankin et al., 2006a; Rankin et al., 2006b; Rama et al., 2012; Sundqvist, 2009; Sylvén and Sundqvist, 2012; Chik, 2014).

2.1. Language exposure inside and outside the classroom

A study by Gradman and Hanania (1991) focuses on English language exposure both inside and outside of the classroom. They investigated the importance of a number of variables in their students' language background which might affect their Test of English as a Foreign Language (TOEFL) scores. The students were asked to fill out a questionnaire in order to provide general information, information on their "formal learning of English, exposure to and use of English in class, extracurricular exposure to and use of English, attitudes and

motivation, and personal observations on their language learning background and current needs” (p. 40). The background variables included total contact hours of formal English language learning, exposure to and use of English in class through instruction, and extracurricular exposure to and use of English through listening, reading, speaking, and writing. “[E]xposure to teachers who are native speakers of English, the use of English as a language of instruction, and participation in intensive English programs” (p. 49) were found to be particularly important in contributing to higher English language proficiency, as well as the extent of active extracurricular exposure to English through reading. The authors concluded that exposure to and use of English in both educational and non-educational settings influences English final attainment.

Hoogendoorn and Philipsen (2013) paid attention to exposure to English both at school and through extracurricular activities as well. They specifically created a game for educational purposes. They investigated the role of an English smartphone app on English language learning. The smartphone app contained English multiple choice questions, memory games and puzzles, texts, and videos. In the first experiment, *Mobiel Engels leren* (Mobile English learning, MEL1), which implies that mobile phones or tablets can be used to learn English, Dutch EarlyBird schools received lesson handouts on zoo animals and went on a school trip to a Dutch zoo. The handouts consisted of information on zoo animals and were complemented by presentations, pictures of animals, and sound files. There were three groups: the first group only used the smartphone app on their school trip, the second group used the smartphone app in the classroom as well, and the third group was, in addition, allowed to use the smartphone app at home. Hoogendoorn and Philipsen (2013) found that the third group had learned more English words during the experiment than the pupils who were only exposed to the smartphone app in the zoo or at school. The smartphone app was adapted for the second experiment (MEL2), so that it would automatically adapt to the pupils’

proficiency level and be more playful, which is thought to enhance language learning. A control group used the previous version of the smartphone app, whereas the test group used the adapted version. It was found that pupils who used the adapted smartphone app, learned more English words than the pupils who used the old version of the app, even though they had not spent more time using it. Although this smartphone app had especially been created to improve pupils' English vocabulary, whereas many popular games do probably not have this purpose, the two experiments by Hoogendoorn and Philipsen (2013) provided more evidence that playing an English-language game can enlarge pupils' English vocabulary. Moreover, their research showed that extracurricular English input caused a larger English vocabulary growth than English education only. The question is, however, whether extracurricular English input in the form of gaming also correlates with English reading and listening proficiency, which are two other important parts of the *IEP Eindtoets Engels* and are taken into account when determining the pupils' CEFR level. Also, there might be differences between educational and non-educational games with regard to the extent to which these games affect language learning; as mentioned previously, Hoogendoorn and Philipsen (2013) created a so-called "serious game" (seriousgames.org), which is a type of game used for education in particular, but most popular games, such as *World of Warcraft* or *Minecraft*, are not meant to be educational. According to Godwin-Jones (2005), "quite a bit of work has been done on creating and using simulations for language learning," whereas massively multiplayer online games have not received the same degree of interest, with regard to research (p. 20). As a reason for this, Godwin-Jones (2005) claims that massively multiplayer online games share the negative reputation of being time-wasters. However, the author believes that these games, in fact, tend to encourage communication and cooperation, which might foster language learning (2005). The following section focuses on these popular non-educational games and other technologies.

2.2. *Games and other technologies*

Sefton-Green (2004) reviews the literature on pupils' informal extracurricular learning in general with the use of Information and Communication Technologies (ICTs). Sefton-Green (2004) first addresses the problem that when many people think about learning, they do not take into account the informal extracurricular learning which takes place outside school, but rather concentrate on learning in an educational setting at schools. Sefton-Green (2004) phrases this idea as follows:

[F]or most of us discussion about learning is inextricably related to formal education systems: how schools should be organised, managed and run. However, any interest in the role of ICTs in children's learning forces the recognition that many children are immersed in ICT-related activities in their homes and with their friends. This recognition requires us to acknowledge a wider 'ecology' of education where schools, homes, playtime, the library and the museum all play their part. (p. 5)

Sefton-Green (2004) further discusses difficulties in measuring pupils' informal learning with ICTs, focuses on some characteristics of informal learning, and finally stresses the importance of more research into the field of informal learning with technology, as "young people's use of ICTs outside of formal education is a complex 'educational' experience" (p. 3). Sefton-Green (2004) also paid special attention to gaming as an opportunity for learning, both through educational games and games which have not been specifically created for learning, and found that "high quality games rather than educational software are the most effective 'educational' approach" (p. 26). In fact, he claims that computer games can be motivational, especially for boys, and might function well in informal learning as they support the learning process in different ways: there is a "productive background allowing for complex intellectual

engagements” (p. 27), consisting of the contexts, the players, and the surrounding texts. Finally, games provide an appropriate environment for learning.

Whereas a number of experimental studies on the relation between extracurricular language exposure and language learning mainly pay attention to short-term effects of extracurricular English activities, Kuppens (2010) conducted research to establish the advantages of long-term English media exposure on children’s English language skills. She investigated Flemish pupils’ use of English television and movies, music, computer games, and websites and compared this to the pupils’ Dutch-English and English-Dutch translation skills to see if their translation skills were influenced by their consumption of popular media. Kuppens (2010) found that watching English-subtitled television and movies, playing English computer games, and listening to English music have a significant positive effect on the scores of the Dutch-English translation tests. With regard to the scores of the English-Dutch translation tests, watching English-subtitled television and movies seemed to have a significant effect as well, especially with female respondents. A drawback of Kuppens’s (2010) methodological approach is that no distinction was made between computer games in which only little or no language is used, and those in which narrative elements are more present. However, Kuppens (2010) made an important distinction between English-subtitled television and movies and non-subtitled television and movies. Although some language teachers find subtitles disadvantageous as they might distract pupils from the actual spoken language (Danan as cited in Kuppens, 2010), the results of Kuppens’s (2010) study show that watching English-subtitled television and movies positively influence language skills to a larger extent than watching non-subtitled television and movies.

2.3. *The role of popular computer games on language learning*

Rankin, Gold, and Gooch (2006a) addressed more closely the role of computer games in language learning in particular. Interestingly, they “propose a methodology for evaluating second language acquisition in the context of massively multiplayer online role-playing games (MMORPG)” (p. 1). Rankin, Gold, and Gooch (2006a) attempted to research if students who play an MMORPG, namely *Ever Quest II*, acquire and/or increase their oral and written skills in the second language faster, when compared to students who do not play this game, in order to carry out a pilot study later that year. Although their paper (2006a) only proposes a methodology for evaluating interactive gaming as a language learning tool and the researchers had not yet conducted their research, it becomes clear in their article that they believe that interactive 3D games can be helpful in foreign language learning. In the same year, the authors conducted a pilot study (2006b) in which they monitored the use of the game *Ever Quest II* by learners of English as a second language (ESL), with regard to their game play activities and social interactions. The authors found that students who already had intermediate level English language proficiency skills, were able to improve their conversational skills by playing this particular MMORPG, whereas it was less beneficial for beginner ESL students. These results show that there might be differences in how English-language games can facilitate foreign language learning for pupils who have a relatively high CEFR level for English, and those who have a lower CEFR level.

Rama, Black, van Es, and Warschauwer (2012) examined Spanish second language learning through playing the Spanish version of *World of Warcraft (WoW)*, as Thorne (2008) found that massively multiplayer online games (MMOGs) such as *WoW* motivate language learning because of the goal-directed nature. Rama, Black, van Es, and Warschauer (2012) collected data from six L2 learners of Spanish. For the analysis, the authors described three criteria of *WoW* and attempted to find examples of the participants’ experiences with it:

1. it “allows for and supports the creation of safe learning and languaging spaces;
2. [it] emphasizes communicative competence, or the ability to communicate meaningfully and effectively within a given context; and
3. [it] promotes goal-directed, collaborative action between experts and novices.” (p. 327)

Rama, Black, van Es, and Warschauwer (2012) found that *WoW* can facilitate language learning. Also, the three criteria mentioned above, which can generally be applied to *WoW*, were found to be “beneficial for participants’ language development and socialization” (p. 337). However, the authors seem to generalize their conclusion to all massively multiplayer online games, whereas their very small study only focused on *WoW*. It is questionable whether other MMOGs also meet the three criteria which Rama, Black, van Es, and Warschauer (2012) mention and, consequently, whether they can be considered useful contexts for second language learning.

Sundqvist (2009) focused on the possible influence of extracurricular English activities on pupils’ English language proficiency levels. She collected data from 74 Swedish students with the help of a questionnaire and two one-week language diaries. The language diaries were used in order to measure the total amount of time which pupils spent on extracurricular English activities, both in total and per activity. The activities from which they could choose were as follows: reading books, reading newspapers or magazines, watching English television, watching English films, browsing English websites, playing video games, and listening to English music (Sundqvist, 2009). Although the pupils had to make estimates with regard to the amount of time they had spent on certain extracurricular English activities, Sundqvist (2009) considers the data reliable. In order to compare the data to the pupils’

English language proficiency levels, the pupils completed five speaking tests, which were assessed by four judges, and two written vocabulary tests. It was found that the pupils spent, on average, 18.4 hours per week on extracurricular English activities. They spent most time on listening to English music (6.58 hours per week, on average), and least on reading newspapers or magazines, or English books (0.02 to 0.20 hours per week). Sundqvist (2009) found that playing digital English-language games fosters L2 proficiency. Especially vocabulary seemed to have grown the largest. This study showed that boys' vocabulary growth, as a result of extracurricular English gaming, was larger than that of girls'. Moreover, a difference was found in the type of games which boys and girls play; according to Sundqvist (2009), boys preferred MMORPGs, whereas girls played more offline single-player games. Although playing English-language games was not the activity which the pupils in this study spent most time on, Sundqvist (2009) concluded that English-language games are useful in learning English as a second language. Three years later, Sundqvist collaborated with Sylvén (2012) to expand on Sundqvist's (2009) research on a relation between gaming and Swedish pupils' English vocabulary knowledge and receptive proficiency. Their assumption was that digital games which contain much language and are cognitively challenging, are relevant sources of L2 input and stimulate interaction. Hence, games like this are likely to support the development of English language proficiency. Sylvén and Sundqvist (2012) were also interested in gender differences regarding the type and amount of time spent on extracurricular English activities, and pupils' English language proficiency as a result of this. The authors collected data from 86 Swedish pupils learning English in primary school. The data consisted of a questionnaire aimed at mapping the pupils' extracurricular English behaviour and providing background information regarding language, and a one-week language diary in which the pupils had to measure their engagement in reading English books, reading English newspapers or magazines, watching English television or films, using English

websites, playing digital English-language games, and listening to English music (Sylvén & Sundqvist, 2012). The researchers' method was very similar to the previous study which had been carried out by Sundqvist (2009). In order to find a relation between the data and the pupils' English language proficiency, the researchers designed a vocabulary test to establish the pupils' receptive and productive vocabulary knowledge. Next to this vocabulary test, the pupils had to do the mandatory national test of English. The results for the reading and listening comprehension parts of this English test were used by the researchers. The language diaries showed that the Swedish pupils spent, on average, 9.4 hours on extracurricular English activities per week. The male participants even spent 10.6 hours engaging in extracurricular English activities, whereas the female subjects spent 8.4 hours per week. The boys also spent more time than the girls playing English-language games (4.4 hours as opposed to 1.1 hours per week). Most of the time was spent on playing English digital games (2.6 hours, on average, per week), as opposed to reading newspapers or magazines, or books, on which the pupils spent 0.0 to 0.1 hours per week respectively. Gender differences were also found in the type of games which were played by boys and girls: boys preferred MMORPGs such as *Call of Duty*, *Counter-Strike*, and *WoW*, whereas girls played games such as *The Sims*, *Restaurant City*, and *Zoo Tycoon*, which may represent the real world more closely than MMORPGs. Furthermore, the results of this study showed that more girls than boys were non-gamers, and more boys than girls were frequent gamers. With regard to the relation between extracurricular English gaming and L2 proficiency, Sylvén and Sundqvist (2012) found that the more pupils play English-language games, the higher their English language proficiency is, as pupils who played games for five hours per week or more had a higher English language proficiency (a score of 25.4 out of 37 on the vocabulary test and 17.4 out of 19 on the reading and listening comprehension test) than those who did not play English-language games as much (18.5 out of 37 and 14.7 out of 19). However, these moderate gamers still had a higher

L2 proficiency than the pupils who did not play games at all (16.6 out of 37 and 13.2 out of 19). The authors concluded that extracurricular English input in the form of playing digital games is likely to be beneficial for second language acquisition.

Another study also focuses solely on commercial off-the-shelf (COTS) video games instead of serious or educational games (Chik, 2014). Chik (2014) has an interest in Chinese-speaking East Asia because many people play COTS games in either Japanese or English, as these versions are often released much earlier than the Chinese ones. Chik (2014) finds that Chinese gamers use L2 gameplay for L2 learning. The author concluded this after analysing students' "background surveys on gaming practices and 500-word autobiographical language learning histories (LLHs)" (Chik, 2014, p. 89), interviewing students in depth, and following 10 students' gaming practices for a year. Besides the language learning histories and interviews, Chik (2014) collected the respondents' "blog entries, recorded gameplay sessions, stimulated recall sessions, and threads from gaming forums" (p. 90) to prove that people who play games can transform those games into learning resources. Chik (2014) concluded that this is, indeed, the case. An important implication for teachers, Chik (2014) claims, is that young L2 learners should be taught how to deal with game versions in a foreign language in order to facilitate language learning.

2.4. Calls for further research

Despite the fact that much research has been done on the influence of extracurricular language input in and exposure to English on learning English as a second language (Chik, 2014; Gradman & Hanania, 1991; Hoogendoorn & Philipsen, 2013; Kuppens, 2010; Rama et al., 2012; Rankin et al., 2006a; Sefton-Green, 2004; Sylvén & Sundqvist, 2012), many of these studies cannot draw any generalizable conclusions which would hold for the current situation in the Netherlands, with regard to English in primary education. As for extracurricular

language exposure through playing games in another language, Peterson (2010a) indicates that more research needs to be done on how computer simulations and games may facilitate second language acquisition. In a later literature review (2010b), he points out that more large-scale longitudinal studies on the influence of massively multiplayer online role-playing games (MMORPGs) on second language acquisition are required, as it is still unclear to what extent there might be an influence of English-language games on learners' English language proficiency.

3. Research questions

Despite Peterson's (2010a, 2010b) calls for further research on the possible influence of computer games on language learning, research on the effects of Vvto has been shown to be very difficult due to many other factors which play a role in English language acquisition, apart from the type of English primary education (i.e. Eibo or Vvto; Van den Broek et al., 2014). In particular, Van den Broek, de Graaff, Unsworth, and Van der Zee (2014) found that the external factors which contribute to English learning include linguistic distance between the first language (L1) and second language (L2), exposure to the second language, motivation, cognitive skills, socioeconomic status, L1 background, the quality of schools, and teacher expectations. The current study attempts to contribute to research on computer games and language learning, and takes into account one external factor which was found by Van den Broek, de Graaff, Unsworth, and Van der Zee (2014), namely the role exposure to the second language. In particular, the goal of this paper is to research the possible influence of extracurricular English gaming on Vvto and Eibo pupils' CEFR levels for English language proficiency, as there is much need for research on differences between Eibo and Vvto pupils' English language proficiency, and, consequently, the effects of Vvto on English language learning.

The current study is different from previous research in a number of ways. As became clear from the previous chapter, Gradman and Hanania's (1991) goal was to gain insight in the language learning background of their students who were enrolled in an Intensive English Program (IEP), because they had different nationalities and first languages (L1s). The current study attempts to contribute to Vvto research by investigating the influence of extracurricular English exposure on group 8 pupils' English final attainment. Many studies focused on popular types of games, namely the so-called massively multiplayer online games (MMOGs), massively multiplayer online role-playing games (MMORPGs), or commercial off-the-shelf (COTS) video games (Chik 2014; Rama et al., 2012; Rankin et al., 2006a; Sundqvist, 2009; Sylvén & Sundqvist, 2012). The current study, on the other hand, takes into account all forms of English-language games. The main goal is to find out if there is a relation between this source of extracurricular English input and pupils' English language proficiency as demonstrated by the CEFR level resulting from the *IEP Eindtoets Engels*, and if there are differences between Eibo and Vvto pupils in the extent to which this relation is present.

3.1. *Main research question and sub-questions*

As mentioned in the introduction in Chapter 1, this master's thesis investigates if there is a relation between the CEFR level which results from the *IEP Eindtoets Engels* and the quantity of English input which pupils gain from one particular extracurricular English activity, namely playing English-language games. Holmen (2013) found that playing English-language games was a large source of extracurricular English input and even the largest source for primary school boys, and much research has focused on (often implicit) second language acquisition through playing games. This paper focuses on gaming in particular. The current study also investigates whether there are differences between Eibo and Vvto pupils with regard to the types of games they play most, and the amount of time they spend on playing

English-language games on average. The main research question of this master's thesis is as follows:

Is there a relation between extracurricular English exposure in the form of playing English-language games and group 8 Eibo and Vvto pupils' CEFR levels for English language proficiency?

The following sub-questions need to be taken into account in order to find appropriate answers to the main research question:

- 1) *How much time do the Eibo and Vvto pupils in this study spend on extracurricular English-language gaming on average?*
- 2) *Is there a difference in the average amount of time which the Eibo and Vvto pupils spend on English-language gaming?*
- 3) *What type of English-language games do the Eibo and Vvto pupils play most on average?*
- 4) *Is there a difference in the type of English-language games which the Eibo and Vvto pupils play?*
- 5) *What are the Eibo and Vvto pupils' CEFR levels for English language proficiency?*
- 6) *Is there a difference in the CEFR level for English language proficiency between the Eibo and Vvto pupils?*

3.2. Hypotheses

The expectation is that extracurricular exposure to English correlates positively with pupils' CEFR levels for English language proficiency; multiple studies have shown that pupils who

have been exposed to extracurricular English input perform (significantly) better on English language proficiency tests than pupils who have not (Chik, 2014; Gradman & Hanania, 1991; Hoogendoorn & Philipsen, 2013; Kuppens, 2010; Rama et al., 2012; Rankin et al., 2006a; Sefton-Green, 2004; Sundqvist, 2009; Sylvén & Sundqvist, 2012). However, it could be the case that there is no significant difference in CEFR level between Vvto pupils with little extracurricular English input and Eibo pupils with much extracurricular English input; Dörnyei (as cited in Sylvén & Sundqvist, 2012) claims that extracurricular activities are often chosen by pupils themselves. As a result, pupils are likely to be motivated and will perform well in these spare time activities. Hence, it is predicted that Eibo pupils will outperform Vvto pupils with regard to the CEFR level if they receive more extracurricular English input than their Vvto peers, even though they do not get as much English input at school as Vvto pupils (i.e. two years compared to eight years). Moreover, Holmen (2013) took gender differences into account when examining “extra-curricular sources of English input amongst Norwegian 8th graders” (p. 2) and found that playing English-language games was the largest source of extracurricular English input for male pupils, whereas watching English TV, films and/or videos was the female pupils’ favourite extracurricular English activity. This means that there might be gender differences in the current study as well, but only with regard to the pupils’ extracurricular activities and not regarding the CEFR levels for English language proficiency which they achieve. This thesis, however, does not pay special attention to gender differences.

According to Holmen (2013), “[y]outh today receive English input from a variety of sources, due to developments within technology” (p. 6); he therefore investigated more forms of extracurricular English input than only gaming. Holmen (2013) used language diaries to find out how much time Norwegian pupils spent on watching English TV series, films or videos, playing games, listening to music, speaking, reading, and writing in English during one week. Holmen (2013) found that the average number of minutes of extracurricular

English input was 1600 per week. Female pupils received most extracurricular English input from watching English TV series, films or videos, whereas male pupils' largest source of extracurricular English input was gaming. Although Holmen (2013) did not focus on a possible correlation between the time spent on extracurricular English activities and the English proficiency level, his study is a good example of how extracurricular English exposure can be mapped and which activities are most and least preferred in an average high-English-proficiency northern European country. It may be expected that Dutch pupils have similar preferences with regard to extracurricular activities and spend much time on playing (English) games as well, as there is a cultural similarity between Norway and the Netherlands, and similar exposure and linguistic distance to the English language.

A difference is expected in the average amount of extracurricular exposure to English between Vvto and Eibo pupils. Blondin et al. (1998), Donato, Tucker, Wudthayagom, and Igarashi, (2000) and Cenoz (2003) found that children who start learning English at a young age, in general show positive attitudes towards English and are highly motivated. Since Vvto pupils usually start learning English at the age of four, they will probably be more positive and motivated with regard to English than Eibo pupils. Furthermore, Barbee (2013) investigated which sources of extracurricular L2 English input Japanese high school students are exposed to, and found that "the amount of exposure is highly correlated with how enjoyable the students find each source of input" (p. 1). Hence, it is predicted that Vvto pupils are exposed to more extracurricular English input than Eibo pupils, as they are probably more motivated to learn English and have a more positive attitude towards English than Eibo pupils because of their early exposure to the English language. It would be unlikely that there is a difference between Vvto and Eibo pupils with regard to the English-language games which are played most, as all the pupils have approximately the same age and similar interests.

Based on the results of the studies which were mentioned in the previous chapter (Chik, 2014; Gradman & Hanania, 1991; Hoogendoorn & Philipsen, 2013; Kuppens, 2010; Rama et al., 2012; Rankin et al., 2006a; Sefton-Green, 2004; Sundqvist, 2009; and Sylvén & Sundqvist, 2012), it is expected that pupils who are frequent gamers in English attain an above-average CEFR level for English language proficiency, and pupils who rarely or never play English-language games are expected to attain a CEFR level for English language proficiency which is below average.

4. Methodology

In order to investigate whether there is a relation between extracurricular English exposure in the form of playing English-language games and group 8 pupils' CEFR levels for English language proficiency, a questionnaire was distributed among pupils and their English teachers at Eibo and Vvto schools. The goal of this questionnaire was to investigate how much time pupils spend on playing English-language games, and how much English education the school offers. The following sections explain about the subjects, the materials, the procedure, and the analysis in more detail.

4.1. Subjects

The schools which have taken part in the current study, are schools which have already taken the *IEP Eindtoets Engels*. I used a list of Vvto schools provided by Nuffic (2017) and checked the websites of the schools which were not on this list to establish the type of school. Then, an e-mail was written to address schools which took the *IEP Eindtoets Engels* in 2016-2017. The e-mail which was created can be found in Appendices 4 and 6. In the e-mail, I introduced myself and explained what my research focuses on, ending with the question whether the school would be willing to participate in the study. In the first week of April, 2017, I sent an

e-mail to all Eibo schools (n=3) and half of the Vvto schools (n=5) which had already taken the test.

I received two positive responses within the first week. I sent a reminder to the other six schools, but none of them replied. The four Vvto schools which I had not sent an e-mail yet were also addressed. However, the reminders and the second round of e-mailing did not seem to have an effect. This might have been due to the fact that the group 8 pupils had to make a final test, such as the IEP Eindtoets (Bureau ICE, 2017) between the 15th of April and the 15th of May (*Rijksoverheid*; Government of the Netherlands, 2017).

Eventually, 29 Dutch group 8 pupils participated in this study. 18 pupils attended an Eibo school, whereas the other 11 attend a Vvto school, both in the Southwest of the Netherlands. The pupils are between 11 and 13 years old. 2 Eibo pupils entered their school later than at the age of 4 (group 1), namely in group 2 and 8. These pupils were included in the study, as it was very unlikely that they had attended a Vvto school prior to their school switch. With regard to the Vvto pupils, one entered the school at the age of 9 (group 6), and the other pupils at the age of 4. This pupil was not excluded, however, as the number of years of English education was still higher than that of an Eibo pupil. Table 1 shows how many pupils participated in this study, their sex, age, the type of school they attend, and the number of years they have spent at their school so far.

		Female	Male	Total
Eibo	N	10	8	18
	Mean age	12.00	11.50	11.78
	Mean years at school	7.30	7.88	7.56
Vvto	N	3	8	11
	Mean age	11.67	11.75	11.73
	Mean years at school	6.33	8.00	7.55
Total	N	13	16	29
	Mean age	11.92	11.63	11.76
	Mean years at school	7.08	7.94	7.55

Table 1. Information on the respondents

As shown in Table 1, there were 10 female and 8 male respondents in the Eibo group, whereas there were only 3 female and 8 male respondents in the Vvto group. In total, however, there were 13 female and 16 male respondents. With regard to the pupils' mean age and the mean years they had spent at their school so far, the numbers for the Eibo and the Vvto group are very similar: the Eibo pupils were 11.78 years old when they filled in the questionnaire, and the Vvto pupils were 11.73 years old. The mean age across the whole population, then, is 11.76. On average, the Eibo pupils have spent 7.56 years at their school so far, and the Vvto pupils have spent 7.55 years at their school.

Table 2 shows the type of school (i.e. Eibo or Vvto), how many pupils were gathered from each school, where this school is located, how much English education is offered per week, and how many years of English education is offered.

Type	Pupils	Area	English	Years of English
Eibo	18	Southwest	1 hour per week	2
Vvto	11	Southwest	1 hour per week	6

Table 2. Information on the schools

The information in Table 2 was gathered through the teachers' questionnaire and by reading the school guides. As shown in Table 2, there were more pupils from the Eibo school who participated in this study, compared to the number of pupils from the Vvto school. Both schools offer English classes to their pupils for one hour per week. The difference between the two schools, then, is that the Eibo school offers English classes to pupils in group 7 and 8 only, whereas the Vvto school teaches English to its pupils from group 1. The Vvto primary school started offering English to pupils from group 1 in the year 2011-2012. This means that the pupils who were in group 8 when the study was conducted have had six years of English education so far instead of eight. The school has been an EarlyBird school since 2015, which means that this Vvto school uses a qualified teaching method with regard to English. All

teachers at the Vvto school have been trained to offer English lessons, and two of them have even had an advanced education in teaching English in primary education. In the first four years, pupils are offered English through an interactive, playful method, whereas pupils make use of a more thorough English method in the last four years of primary education. At the Eibo school, the pupils in group 8 are also offered English education one hour per week. However, these pupils did not receive English input as early as the pupils at the Vvto school. Both from the school guide and e-mails from the teacher, it became clear that this Eibo school is actually aiming at becoming a Vvto school, as its pupils are now familiarised with the English language from group 1. According to the school guide, the school will offer English education to all groups from September 2017, considering the growing importance of the English language because of internationalisation. Two native speakers of English will give the English lessons. The respondents in the current study, however, have not had 8 years of English education and can, therefore, still be considered Eibo pupils.

4.2. *Materials*

4.2.1. *The IEP Eindtoets Engels*

The pupils in group 8 had made the *IEP Eindtoets Engels* prior to filling out the questionnaire. In this section, I explain what the *IEP Eindtoets Engels* is, what parts and types of questions it contains, and how it is constructed, since I use the outcomes of this particular test to investigate if there is a relation between the amount of English-language games pupils in group 8 play, and the CEFR levels for English language proficiency they achieve. The goal of this section is not to establish the validity of the *IEP Eindtoets Engels*, but rather to explain in detail how the CEFR levels for English language proficiency which are used in this paper derive from this test.

The *IEP Eindtoets Engels* is an adaptive test which is based on the CEFR (Council of Europe, 2001). It gives schools, pupils and their parents or caregivers insight into the pupils' general CEFR level for the English receptive skills reading and listening. English vocabulary is also tested, but the CEFR does not offer a level for vocabulary as it is not regarded as a communication skill. The words which are used in the test, however, are taken from a corpus which is linked to the CEFR levels. This corpus is called the English Vocabulary Profile, which "offers reliable information about which words (and importantly, which meanings of those words) and phrases are known and used by learners at each level of the Common European Framework (CEF)" (EnglishProfile, 2015). The final attainment levels which are measured by the *IEP Eindtoets Engels* are *Op weg naar A1* (Approaching A1), A1, A2, or B1, for all the skills in total. These levels may, in fact, differ from the English language proficiency aims. The *IEP Eindtoets Engels* is adaptive and consists of two parts, which should most desirably be taken within two weeks. The time limit for each part is 45 minutes, but they are often finished in less time. The test is partly adaptive as the CEFR level on which the listening part of the first test is made is dependent on the vocabulary score. Moreover, the second test is dependent on the results of the first test, so pupils who take the listening part of the first test on an A1 level, for example, based on their vocabulary score, will not be able to take the second test on a B1 level. In addition to a general CEFR level for English receptive skills, the results of the *IEP Eindtoets Engels* show the CEFR levels at which the pupils took the second test (listening and reading), and the percentage of correct answers for each part including vocabulary and the listening part of the first test. Figure 1 shows how the *IEP Eindtoets Engels* is set up.

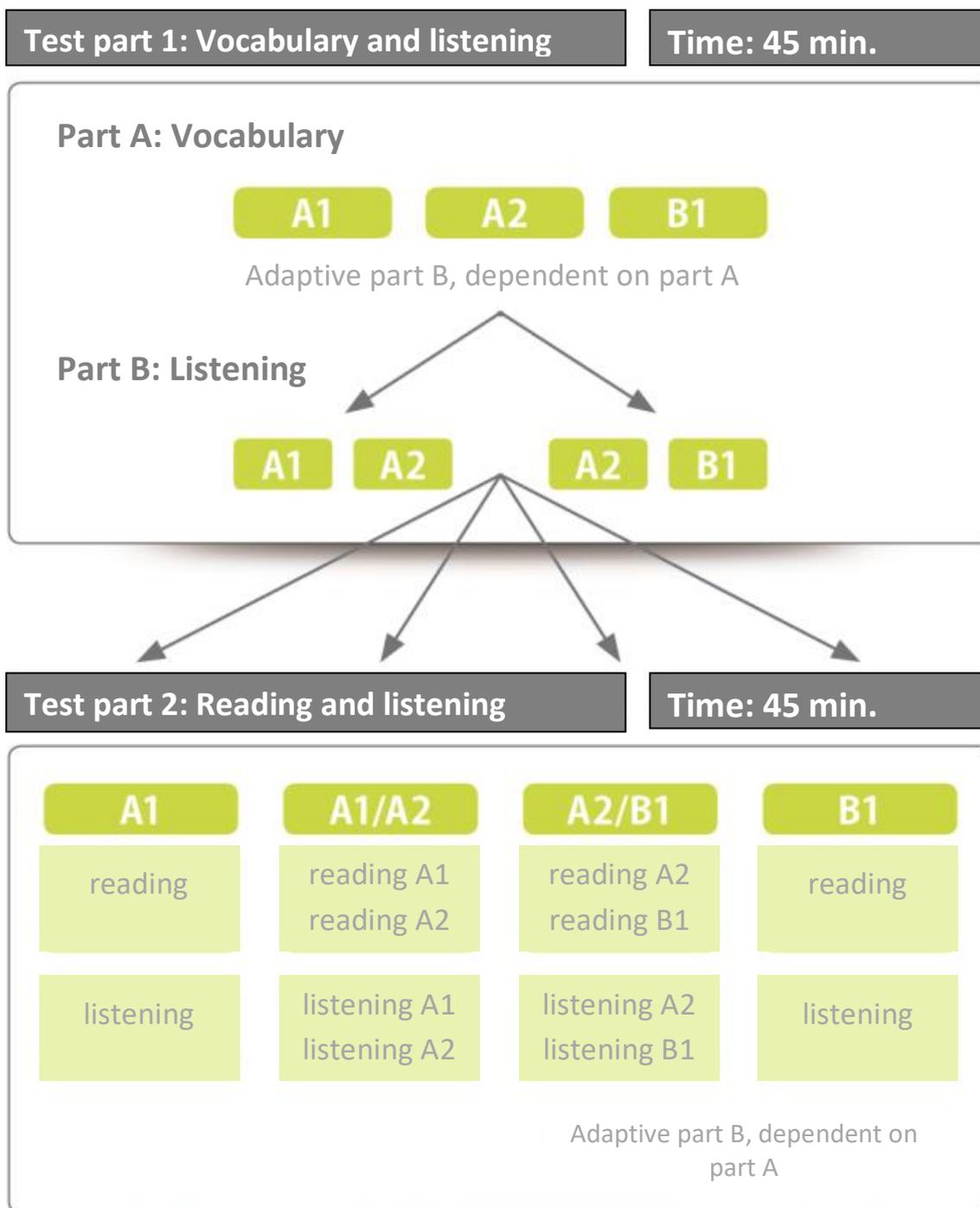


Figure 1. The construction of the partly adaptive IEP Eindoets Engels (Adapted from Bureau ICE, 2016b).

As shown in Figure 1, the first part of the test contains test items on vocabulary and listening. There are 57 test items in the first part of the test: 45 vocabulary test items (15 at an A1 level, 15 at an A2 level, and 15 at a B1 level) and 12 listening test items (either 6 at an A1 level and 6 at an A2 level, or 6 at an A2 level and 6 at an B1 level). The second part of the

IEP Eindtoets Engels focuses on reading and listening and contains a total of 24 test items.

These test items can be at an A1, A2, or B1 level. When both reading and listening parts are taken at an A1 level, there are 12 test items for reading at A1, and 12 test items for listening on A1. When the reading and listening parts, however, are taken at an A1/A2 level, there are 6 test items for reading at A1 and 6 at A2, and 6 test items for listening at A1 and 6 at A2.

Another possibility is that the reading and listening parts are taken at an A2/B1 level, which means that there are 6 test items for reading at A2 and 6 at B1, and 6 test items for listening at A2 and 6 at B1. When both the reading and the listening parts are taken at a B1 level, there are 12 test items for reading and 12 test items for listening at a B1 level. The vocabulary part makes a distinction between nouns, verbs, adjectives, and adverbs, but the test items contain more nouns and verbs than adjectives and adverbs, based on their frequency in everyday speech. All the vocabulary test items contain an audio file, so that pupils who are familiar with the sound of a word, but not with its spelling, are able to understand the questions. There are five types of questions: synonyms, mixing and matching, picture-to-word mapping, word-to-picture mapping, and categorising. Some sample test items can be found below.

This is the **final** book.

final =

digital

free

last

worst

Figure 2. Sample test item for “synonyms” (Bureau ICE, 2016j).

For the test item in Figure 2, pupils have to choose which word has the same meaning as the bold printed word above.

Make pairs.

<input type="radio"/> to cut	<input type="radio"/> knife
<input type="radio"/> to ring	<input type="radio"/> pounds
<input type="radio"/> to spend	<input type="radio"/> telephone

Figure 3. Sample test item for “mixing and matching” (Bureau ICE, 2016f).

For the test item in Figure 3, pupils have to connect the words which are related. This type of test item, thus, measures underlying relations between words, in addition to their meanings.

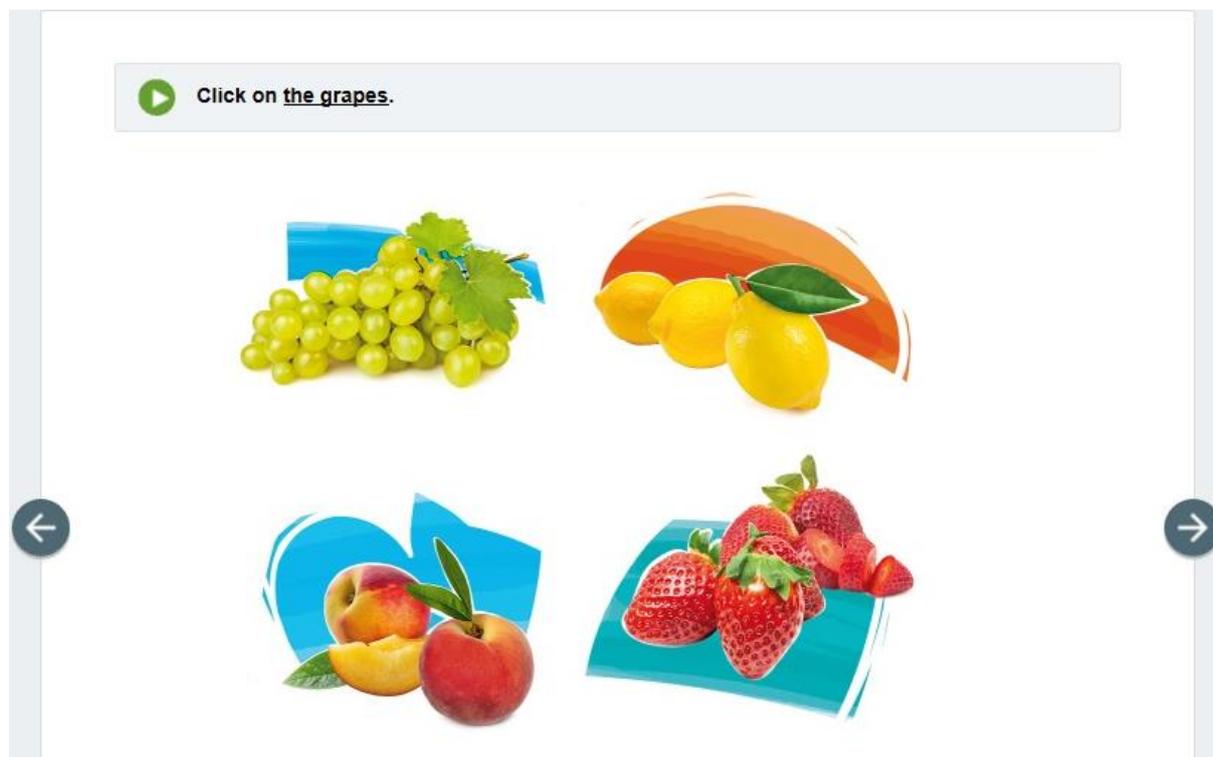


Figure 4. Sample test item for “picture-to-word mapping” (Bureau ICE, 2016h).

With regard to the test item in Figure 4, pupils have to choose the picture which maps to the bold printed, underlined word above.



The illustration shows a boy in a light blue shirt and dark jeans running towards an ice cream stall. He is holding a yellow banknote with a pound symbol (£) in his right hand, offering it to the vendor. The vendor, wearing a white uniform and a cap, is handing a small ice cream cone to the boy. The stall is green and yellow, with various ice cream cones and toppings visible. The scene is set against a light blue background.

←

▶ What is the boy doing?

closing

paying

sending

telling

→

Figure 5. Sample test item for “word-to-picture mapping” (Bureau ICE, 2016k).

Pupils have to do the reverse for the test item in Figure 5, in which they have to choose the word which matches the picture above.

Put the words in the correct box.

sport	breakfast

- baseball
- golf
- omelette
- toast

Figure 6. Sample test item for “categorising” (Bureau ICE, 2016d).

In the test item in Figure 6, there are four words which the pupils have to drag into two semantic categories; “baseball” and “golf” should be dragged into the “sport” box, whereas “omelette” and “toast” belong to the “breakfast” box.

The test items for listening and reading are based on the CEFR descriptions. For listening on an A2 and B1 level, pupils should be able to understand conversations between native speakers of English and listen to, and understand, TV, video and sound recordings; on a B1 level, they should be able to listen as if they were members of a live audience; and on an A1, A2 and B1 level, they should be able to listen to announcements and instructions. For both listening and reading, the three types of questions focus on understanding, interpreting, and assessing. There are multiple choice questions in which only one answer is correct, multiple choice questions in which multiple answers should be given (the number of options which should be chosen are mentioned in the exercise), and questions in which the pupil needs to drag a certain element to the correct category.

As far as reading is concerned, pupils should be able to read correspondence, focus on exploratory reading, read to find information, and read instructions on an A1, A2 or B1 level, which corresponds to the CEFR level descriptors for English reading proficiency. The different texts in the *IEP Eindtoets Engels* represent these level descriptors. Some sample test items for both listening and reading with regard to the different types of questions can be found below:

The image shows a digital test interface. At the top, a light blue box contains a play button icon and the text: "Lynn is listening to her teacher. The teacher talks about an activities day at school. Listen to the text. Answer the question." Below this is the instruction "Click on the play button." followed by a play button icon and a progress bar. A second light blue box contains a play button icon and the question: "Where are the four activities? Put the activities in the correct box." Below the question is a table with two columns: "the gym" and "Ms Foster's classroom". At the bottom, there are four draggable items, each with a play button icon and text: "do a quiz", "make a painting", "play games", and "watch a film". The interface is framed by vertical bars on the left and right, each with a circular arrow button.

Click on the play button.

Where are the four activities? Put the activities in the correct box.

the gym	Ms Foster's classroom

- do a quiz
- make a painting
- play games
- watch a film

Figure 7. Sample test item for “dragging” (Bureau ICE, 2016i).

With regard to the test item in Figure 7, pupils again have to drag four words or word groups to the correct box. In this case, however, the answers are less self-evident than for the

test item in Figure 6. The word groups in the test item in Figure 7 can only be categorised appropriately if the audio is played and understood correctly.

Jonah wants to buy a skateboard. Read the text. Answer the two questions.

Our team tests: Skateboards

Are you looking for a new skateboard? Our team has tested the five most popular boards. Find out which one is best for you!



	Skate 502	Cruiser	Green Rocket	Wasp	Storm Board 5
What does it look like?	grey and white	a sporty, all-green model	black with green flames	white and purple with some flowers	dark blue, with a cool drawing of a skater
What do we like?	- great for doing stunts	- the low price - easy to ride - great for beginners	- can go very fast - good for longer rides	- does not break easily - good for beginners	- a good choice for doing stunts
What don't we like?	- looks a bit boring	- not so great for doing stunts	- the price is a bit high	- looks girly	- not so great for longer rides
What does it cost?	£75	£ 60	£ 95	£ 70	£ 85
Where can you buy it?	Remy's	The Sports Shop	Outdoor Market	Top Tiger	Outdoor Market

Jonah wants to buy the cheapest skateboard. In which shop can he buy it?

Outdoor Market

Remy's

The Sports Shop

Top Tiger

Figure 8. Sample test item for “multiple choice – 1 answer correct” (Bureau ICE, 2016e).

Our team tests: Skateboards

Are you looking for a new skateboard? Our team has tested the five most popular boards. Find out which one is best for you!



	Skate 502	Cruiser	Green Rocket	Wasp	Storm Board 5
What does it look like?	grey and white	a sporty, all-green model	black with green flames	white and purple with some flowers	dark blue, with a cool drawing of a skater
What do we like?	- great for doing stunts	- the low price - easy to ride - great for beginners	- can go very fast - good for longer rides	- does not break easily - good for beginners	- a good choice for doing stunts
What don't we like?	- looks a bit boring	- not so great for doing stunts	- the price is a bit high	- looks girly	- not so great for longer rides
What does it cost?	£75	£ 60	£ 95	£ 70	£ 85
Where can you buy it?	Remy's	The Sports Shop	Outdoor Market	Top Tiger	Outdoor Market

Jonah's brother wants to do stunts. Which two skateboards can he choose best?

Skate 502

Cruiser

Green Rocket

Wasp

Storm Board 5

Figure 9. Sample test item for “multiple choice – more answers correct” (Bureau ICE, 2016g).

Figures 8 and 9 show test items in which a question is asked about the text presented above. In the test item in Figure 8, pupils have to choose one answer, whereas they can choose two in the test item in Figure 9. As shown in Figure 9, the number of answers which are correct is given and underlined for emphasis.

In an interview with Van Baalen (Van de Kerkhof, 2017), who is a test developer at Bureau ICE, it became clear that the texts, test items and illustrations which are used in the *IEP Eindtoets Engels* have in common that they connect to the pupils' perception of the world. For example, the text in Figures 8 and 9 is about skateboards, which children around the age of 11 are likely to be familiar with and interested in; the illustration shows a girl on a skateboard who is approximately the same age as the pupils who make the *IEP Eindtoets Engels*. Moreover, Van Baalen (2017) claims, the texts, test items and illustrations are appropriate for every pupil, irrespective of their sex, religious background, socioeconomic status or region. This is important as the test should be appealing to every pupil in order to elicit their utmost effort and results. The English which is used in the audio fragments and texts have been checked by a native speaker and have been corrected if necessary. The texts are a hundred per cent authentic, as they have specifically been constructed for the *IEP Eindtoets Engels*. The reading and listening texts are always introduced by a description of the situation and the exercise in the third person. The layouts of some texts are based on contemporary texts in the real world. Also, the answer options are ordered alphabetically or numerically, so that the correct answer, named the "key," is well hidden and confusion can be avoided. Finally, the language used in the test items is of an equal or lower level than the level which is being tested, so that it is likely that pupils will understand the test items. The reason for this is that comprehension of the text is being measured, instead of comprehension of the question.

4.2.2. *The questionnaire*

In order to map the pupils' gaming habits and to gain some information on the English education at the two schools, I have created an online questionnaire with use of Qualtrics.com, so that teachers and pupils would be able to fill out the questionnaire on a computer, smartphone or tablet at a moment of their own choice. The questionnaire was used to gather information on the pupils' gaming behaviour, the English teachers' experience and the English education at each school. There was only one questionnaire for both the teacher and his or her pupils, but teachers and pupils were shown different questions, based on the option they had chosen for question 3: either *Leerkracht* (Teacher) or *Leerling* (Pupil). Several versions of the questionnaire can be found in Appendices 2, 3, 5, 6, 8, 9, 10, and 11, as the questionnaire is adaptive and, therefore, it was not possible to create one document in which all the questions for the Eibo and Vvto teachers and pupils had been put, considering its length and lack of clarity.

The questionnaire starts with general questions on the participants' school and full name. The pupils' names and school were needed in order to match their answers, and, eventually, the time which they spend on playing English-language games, to their CEFR levels. The teachers were asked whether they are native speakers of English, how much experience they have with regard to teaching English, and whether they teach all subjects or only English. Then, information is gathered on the English education at their school by asking in which year English is first offered, how much time is spent on English per class per week, and in what year the school started offering English to pupils from group 1. The pupils are asked for some personal information such as their age, the class in which they entered the school, their first languages, and other languages they speak. Most importantly, the questionnaire contains questions on the pupils' leisure activities and their extracurricular gaming behaviour. They are asked which leisure activities they are engaged in, whether they

play games, which gaming consoles they use, whether they play English-language games, which English-language games they play, how often they play these games, and for how long they play these games.

4.3. Procedure

4.3.1. Taking the *IEP Eindtoets Engels*

The *IEP Eindtoets Engels* can be taken from November up until February, or from May up until July, at a moment of the teacher's own choice. Both the Eibo and the Vvto school which have taken part in the current study, took the *IEP Eindtoets Engels* in the first period. The pupils at the Eibo school took both parts of the test on Thursday the 15th of December, 2016. The first part was started that day around 9 AM, whereas the second part was started around 11:15 AM. Almost all of the Eibo pupils finished both parts of the test within 45 minutes for each part.

The pupils at the Vvto school took the first part of the test on Wednesday the 8th of February, 2017, whereas the second part was taken one week later, on Wednesday the 15th of February, 2017. Some of the pupils, however, took both the first and the second part of the *IEP Eindtoets Engels* on the same day, and one pupil took the first part on Wednesday the 15th of February, 2017 and the second part on Wednesday the 22nd of February, 2017. The first part of the test was started around 9:00 AM, and the second part around 10:40 AM. Most Vvto pupils in the current study finished both parts of the test within 45 minutes for each part as well. The results were shown immediately after the test had been completed.

4.3.2. The research

As explained before, a link to the online questionnaire was sent to the schools contact who was mentioned in Bureau ICE's customers file. The contact persons of the schools which

participated in the current study were also the English teachers in group 8. After the teachers had replied to my e-mail that they and their pupils would like to fill out the questionnaire, I sent them an e-mail with the link to the online questionnaire and a short instruction. The instruction detailed that the link to the questionnaire could be used by both the teacher and the pupils, as the teacher could click on *Leerkracht* (Teacher) and the pupils could click on *Leerling* (Pupil) after filling in their names and the name of the school. Furthermore, I told the teachers that they could contact me via e-mail or by telephone if there were any ambiguities. The teachers forwarded this link to their pupils, who filled out the questionnaire at the same time. The teachers filled out the questionnaire in class at the same moment as well, using the same instruction as mentioned above. This was important as the pupils did not have time to discuss the questions before filling out the questionnaire, and the teachers could not give their pupils information on its content. They could close the web page, as their answers were saved automatically. Although I was not able to be present at the time when the pupils and their teachers filled out the questionnaire, the information on the survey software website, Qualtrics.com, showed that most respondents needed five or six minutes to complete the questionnaire, instead of the three minutes which the software had estimated beforehand. There was one outlier, however, who completed it in only two minutes; this was probably one of the teachers, whose questionnaire was shorter than the pupils'. There were also four respondents who needed eleven, fifteen, or even twenty minutes. It is likely that these four respondents took a break while filling out the questionnaire, or had some trouble with the questionnaire or their Internet connection. All the questionnaires were filled out around nine o'clock in the morning on either Friday the 7th of April, 2017, for the Eibo pupils, or Wednesday the 12th of April, 2017 for the Vvto pupils.

The following section explains how the data were analysed, after which the results are presented in Chapter 5.

4.4. Analysis

The data from Qualtrics.com were organised by listing the type of school, an anonymous code for the pupils' names, their sex and age, the group in which they entered the school, their mother tongue and any second or third languages, their leisure activities, the gaming consoles they use, the names of the English-language games they play, how often they play these games and for how long, as well as their CEFR level for English language proficiency as was demonstrated by the results of the *IEP Eindtoets Engels*. The pupils' CEFR levels were provided by their teachers, who sent a document with the results of the *IEP Eindtoets Engels*. Statistical tests were performed with the use of SPSS. An independent-samples t-test was used to investigate whether there was a significant difference in the mean number of minutes of playing English-language games of two groups, namely the Eibo and the Vvto pupils. The type of school (Eibo vs. Vvto) is the independent variable here, whereas the number of minutes of playing English-language games is the dependent variable, as it is expected to be dependent on the type of school the pupils attend. The second test which was carried out is the Chi-square test for independence, which "explore[s] the relationship between *two* categorical variables. Each of these variables can have two or more categories" (Pallant, 2010, p. 217). This was necessary, as there are two categories for "level," namely Eibo and Vvto, but also two categories for playing games (yes vs. no), and even four for the CEFR levels for English language proficiency (*Op weg naar A1*, *Approaching A1*, *A1*, *A2*, and *B1*). A one-way analysis of variance (ANOVA) was performed to answer the main research question, namely whether there is a relation between extracurricular English exposure in the form of playing English-language games and group 8 pupils' CEFR levels for English language proficiency, as there was one continuous variable (i.e. the number of minutes of playing English-language games) and one categorical variable with four categories (i.e. *Op weg naar A1*, *Approaching A1*, *A1*, *A2*, and *B1*).

5. Results

The results of the current study are presented in this chapter by providing figures, tables and the outcomes of statistical tests. The results are presented for each sub-question and the main research question separately. Although the sample size was too small ($n=29$) and, therefore, the results were not representative for the whole Eibo and Vvto population in the Netherlands to draw generalizable conclusions from the outcomes of any statistical test, these have been performed to show statistically significant differences or correlations which resulted from the appropriate statistical tests. This lack of generalizability should be taken into account when interpreting the figures, tables, and outcomes of the statistical tests which are presented in this chapter. See the Discussion and Conclusion in chapters 7 and 8, respectively, for a further explanation of the drawbacks of the approach and limitations of the findings.

5.1. How much time do the Eibo and Vvto pupils in this study spend on extracurricular English-language gaming on average?

Figure 10 shows the number of respondents who answered to the question whether they ever played English-language games.

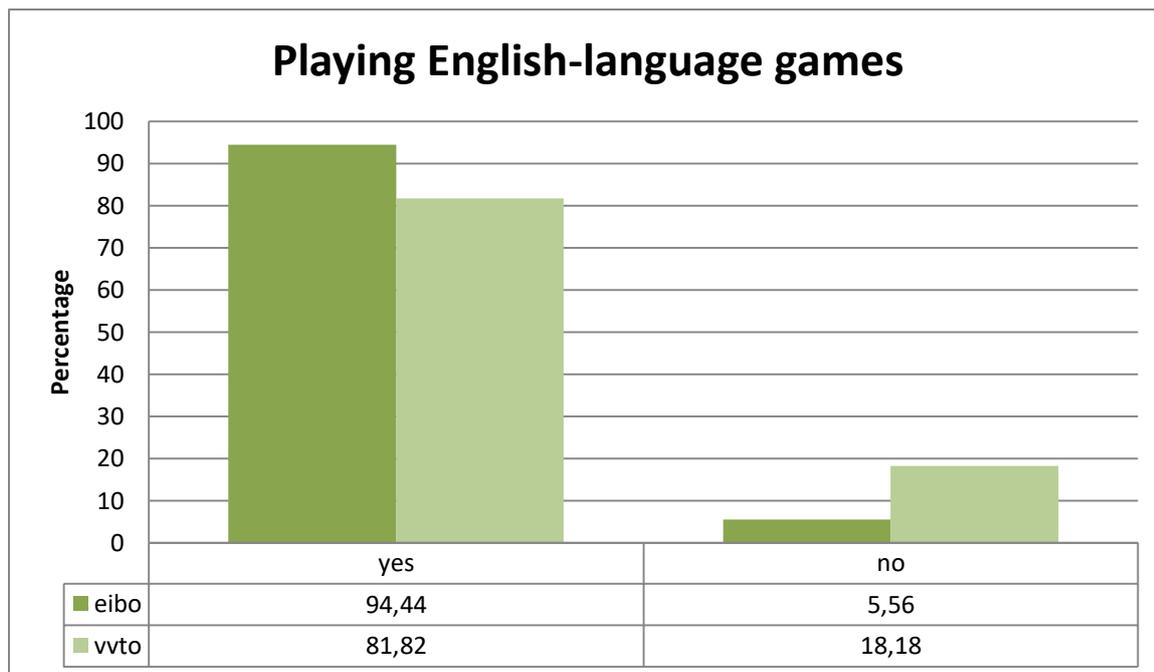


Figure 10. Percentage of respondents who answered “yes” or “no” to the question if they ever played English-language games, with Eibo-Vvto distinction.

As shown in Figure 10, 94.44 % of the Eibo pupils (n=17) and 81.82 % of the Vvto pupils (n=9) said that they play English-language games. In total, 89.66 % of all the respondents said that they play English-language games (n=26), whereas 10.34 % did not (n=3).

Figure 11 shows how often the respondents (who indicated in an earlier question that they play English-language games) play at least one English-language game. Most respondents declared that they play more than one English-language game, but in this figure only the game which they play most is taken into account. For example, when “(almost) every day” is chosen, this means that there is at least one game which is played (almost) every day by this pupil; hence, there may be more than one game which is played (almost) every day, but this figures does not say anything about the number of games which the pupils play.

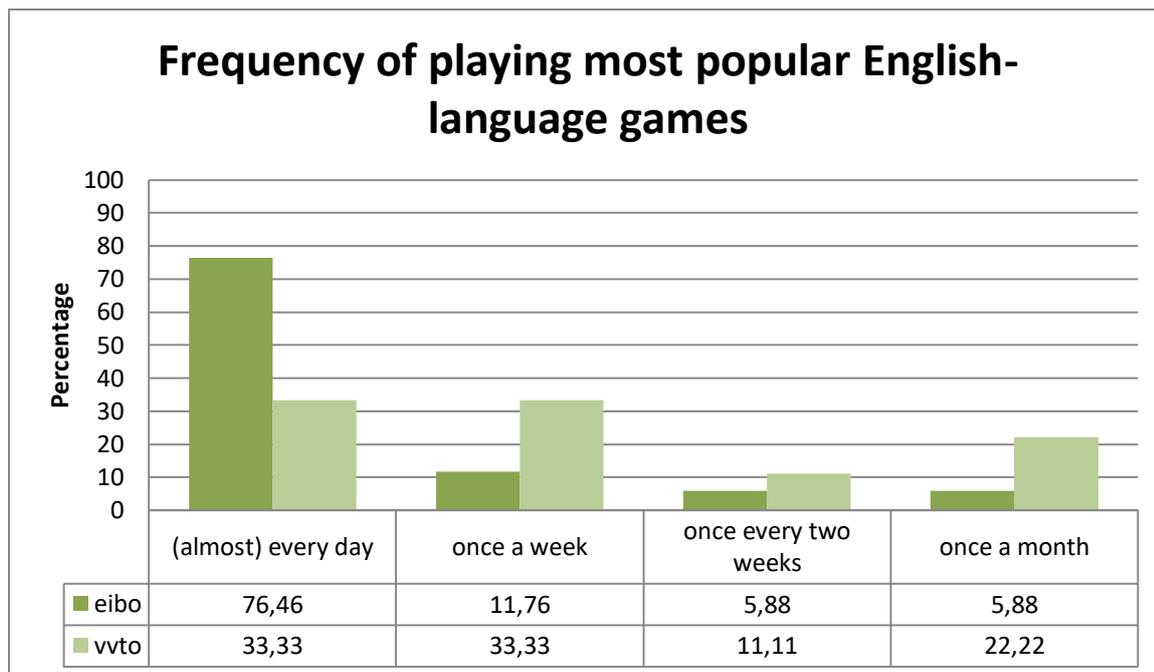


Figure 11. Frequency of playing most popular English-language games in percentages for the Eibo and Vvto pupils who declared earlier that they play English-language games. The option “(almost) never” has been left out as this did not occur.

As shown in Figure 11, 61.54 % of all the respondents played their most popular English-language game (almost) every day ($n=16$). 19.23 % of the respondents played an English-language game once a week ($n=5$), 7.69 % does so every two weeks ($n=2$), and 11.54 % of the pupils played an English-language game only once a month ($n=3$). Out of the 26 pupils who indicated that they play English-language games, none of them declared that they (almost) never played their most played game. The data suggest that pupils at the Eibo school played English-language games more often than pupils at the Vvto school, as the options “once every two weeks,” “once a month,” and “(almost) never” are chosen more often by the Vvto pupils than by the Eibo pupils. Statistical tests between the Eibo and the Vvto pupil’s data were performed; the outcomes are presented in the next section.

Figure 12 shows how much time the respondents spend on playing their most popular English-language game every time they play it. A distinction has, again, been made between the Vvto and Eibo pupils.

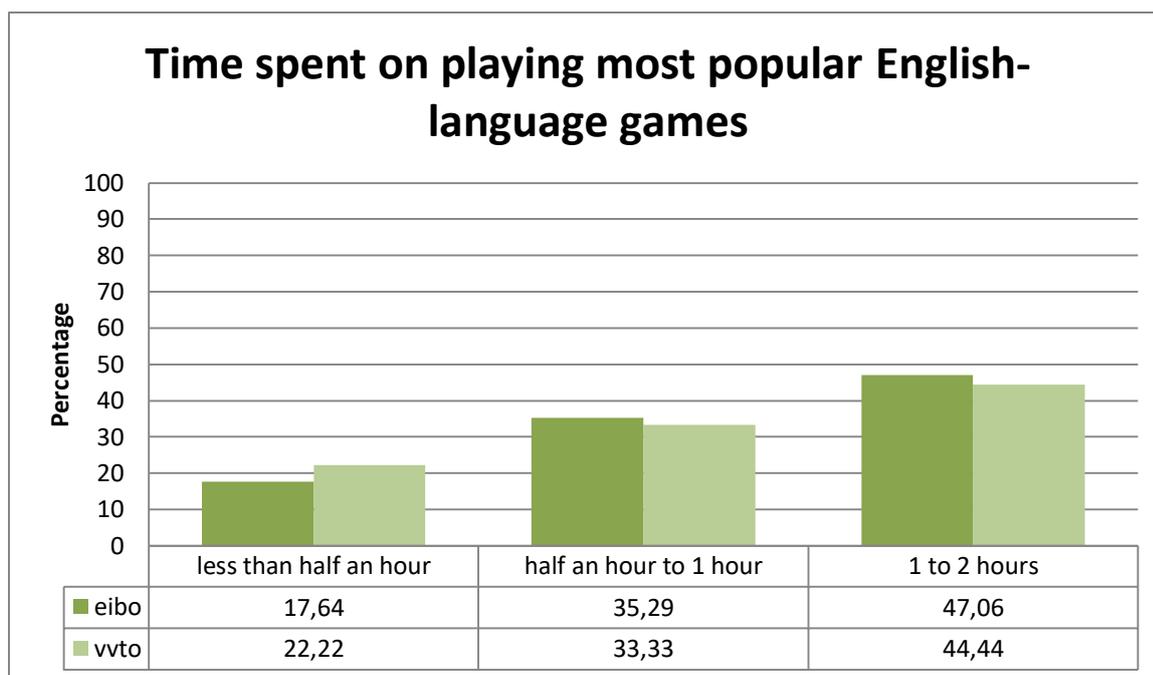


Figure 12. Time spent on playing most popular English-language games each time this game is played by Eibo and Vvto pupils who declared earlier that they play English-language games. The option “more than 2 hours” has been left out as this did not occur.

As shown in Figure 12, the largest group of pupils (46.15%) spends 1 to 2 hours on gaming when they decide to play an English-language game ($n=12$). This is followed by pupils who play a game for half an hour to 1 hour ($n=9$; 34.62%) and those who play for less than half an hour ($n=5$; 19.23%) every time they decide to play this game. There were no respondents who indicated that they play a game for more than 2 hours at a time. According to these data, there seem to be no large differences in playing times between the Eibo and the Vvto group, but the statistical tests in the next section will give more information on that.

The data on how often and for how long the pupils play English-language games, not just the data with regard to their most popular game, were used to calculate the number of minutes which each pupil spends, on average, on playing English-language games in general, on a daily basis. This was done by taking into account both the frequency and duration of playing each English-language game. For example, for a pupil who declared that he or she plays an English-language game (almost) every day for 1 to 2 hours, this was calculated by

multiplying 5/7 by 90 minutes, resulting in 64 minutes. The minimum was 0 minutes, whereas the maximum was 204 minutes of playing English-language games per day, on average. Table 3 shows the means and standard deviations for the Eibo and the Vvto pupils, as well as for the total number of pupils:

	N	Mean	Std. Deviation
Eibo	18	62.89	60.21
Vvto	11	20.73	30.76
Total	29	46.90	54.52

Table 3. Number of pupils in the Eibo and Vvto groups, mean number of minutes of playing English-language games per day, and standard deviations.

As shown in Table 3, the Eibo pupils play English-language games for 62.89 minutes per day, on average, whereas the Vvto pupils play English-language games for only 20.73 minutes per day. In total, the mean number of minutes of playing English-language games per day is 46.90. All of the standard deviations are rather large, which means that many pupils' English gaming time deviates much from the mean number of minutes.

5.2. *Is there a difference in the average amount of time which the Eibo and Vvto pupils spend on English-language gaming?*

The data in Figure 1 suggest that there are more non-gamers in the Vvto group than in the Eibo group. Table 3 indicated that the mean number of minutes of playing English-language games per day is much higher for the Eibo pupils than for the Vvto pupils. According to these data, it seems that pupils at the Eibo school spend much more time on playing English-language games than their peers at the Vvto school.

To test if these two means are statistically significantly different from one another, an independent-samples t-test was conducted to compare the mean number of minutes for the Eibo and the Vvto pupils. It was found that there was a significant difference in the number of

minutes for the Eibo pupils ($M = 62.89$, $SD = 60.21$) and the Vvto pupils ($M = 20.73$, $SD = 30.76$; $t(29) = 2.15$, $p = .04$, two-tailed). The magnitude of the differences in the means (mean difference = 42.16, 95% *CI*: 1.87 to 82.46) was large (eta squared = .146).

5.3. *What type of English-language games do the Eibo and Vvto pupils play most on average?*

The pupils could fill in more than one game on the question of which English-language games they played. These data were used to make a top 3. Figure 5 shows the three games which are played by most of the respondents: *Call of Duty (CoD)*, *Grand Theft Auto (GTA)*, and *Minecraft*. A distinction has been made between the Vvto and the Eibo pupils.

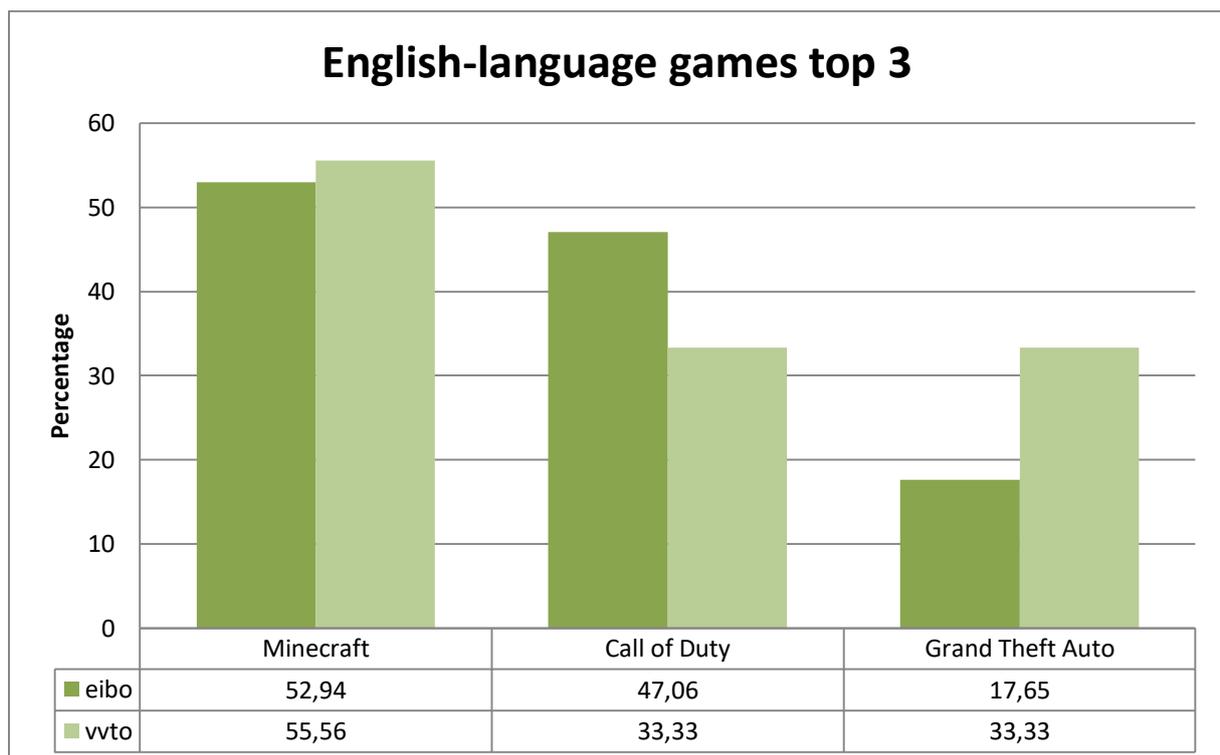


Figure 13. The top 3 of English-language games which were played by most of the Eibo and the Vvto pupils, in percentages.

As shown in Figure 13, *Minecraft* is the most popular game among the respondents.

Out of 26 pupils who said they play English-language games, 53.85 % plays *Minecraft*

(n=14). 52.95 % of the Eibo pupils plays this game (n=9). With regard to the Vvto pupils, 55.56 % plays *Minecraft* (n=5). The second most played game is *CoD*, which is played by 42.31 % of the pupils (n=11). As for the Eibo pupils, 47.06 % of the pupils plays *CoD* (n=8), whereas 33.33 % of the pupils in the Vvto group plays this game (n=3). The third game, *GTA*, is played by 23.08 % of the pupils (n=6). 17.65 % of the Eibo pupils (n=3) and 33.33 % of the Vvto pupils (n=3) plays this game.

5.4. *Is there a difference in the type of English-language games which the Eibo and Vvto pupils play?*

As shown in Figure 13, about half of both groups play the English-language game *Minecraft*. However, nearly half of the Eibo pupils plays *CoD*, whereas only about a quarter of the Vvto pupils plays *CoD*. On the contrary, the percentage of pupils who play *GTA* is nearly double as high for the Vvto group (27.27%) as for the Eibo group (16.67%). When comparing the numbers of respondents who play *Minecraft*, *CoD*, and/or *GTA*, there seem to be no large differences between Vvto and Eibo pupils with regard to the games which they played most. As both *CoD* and *GTA* can be considered rather violent MMORPGs, the data suggest that there are no differences in the type of games which the Eibo and Vvto pupils play. A statistical Chi-square test was performed to find out if there is a significant association between the two types of education and the proportion of gamers and non-gamers. This Chi-square test for independence (with Yates Continuity Correction) indicated no significant association between level (Eibo vs. Vvto) and gaming (yes vs. no), $\chi^2(1, n = 29) = .37, p = .54, \phi = .21$.

Then, three Chi-square tests were performed to find out if the proportion of *Minecraft*, *CoD*, and *GTA* players in the Eibo and the Vvto group are statistically significantly different. With regard to *Minecraft*, a Chi-square test for independence (with Yates Continuity

Correction) indicated no significant association between level (Eibo vs. Vvto) and playing Minecraft (yes vs. no), $\chi^2 (1, n = 26) = .00, p = 1.00, phi = -.03$. For *CoD*, a similar test for independence (with Yates Continuity Association) indicated no significant association between level (Eibo vs. Vvto) and playing Call of Duty (yes vs. no), $\chi^2 (1, n = 26) = .00, p = 1.00, phi = .08$. As for playing *GTA*, a Chi-square test for independence (with Yates Continuity Association) indicated no significant association between level (Eibo vs. Vvto) and playing Grand Theft Auto (yes vs. no), $\chi^2 (1, n = 26) = .17, p = .68, phi = -.18$.

5.5. What are the Eibo and Vvto pupils' CEFR levels for English language proficiency?

To answer the main research question of the current study, the respondents' CEFR levels for English language proficiency were needed to be compared to the results of the questionnaire to investigate their English gaming behaviour. Figure 14 shows the percentages of all the pupils per CEFR level for English language proficiency:

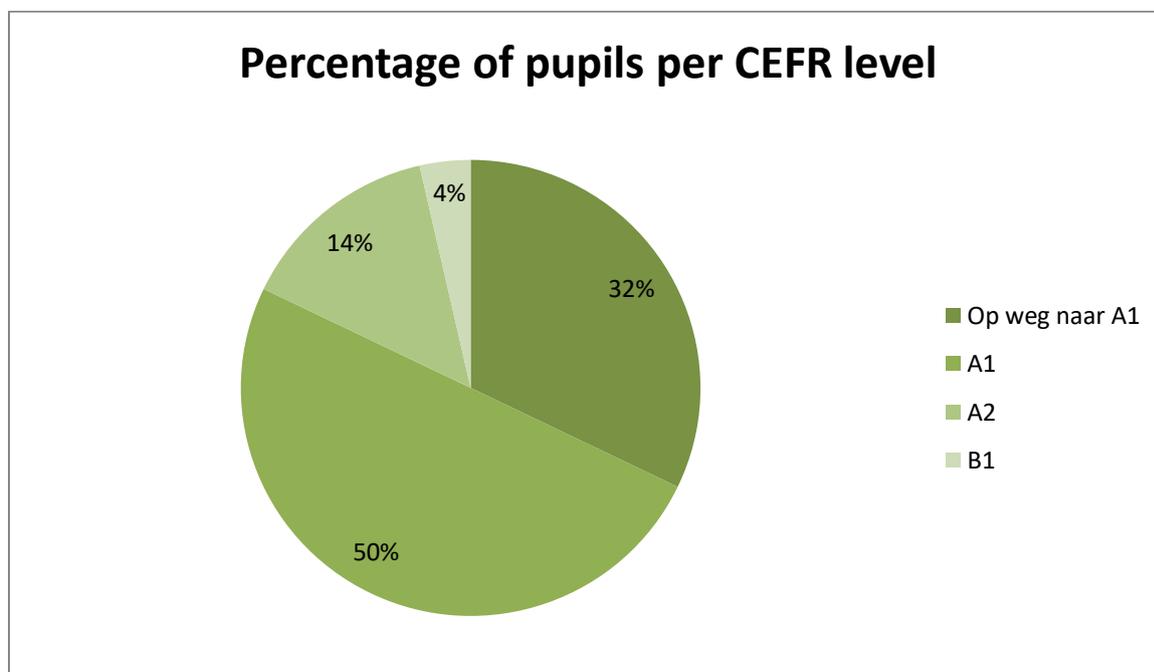


Figure 14. Percentages of all the pupils per CEFR level for English language proficiency

Overall, 32.14 % of all the 28 pupils scored *Op weg naar A1* (approaching A1; n=9), 50.00 % scored A1 (n=14), 14.29 % scored A2 (n=4), and only 3.57 % of all the pupils scored a B1 level (n=1) on the *IEP Eindtoets Engels*. One pupil's CEFR level was missing, as this Vvto pupil had not completed the second part of the *IEP Eindtoets Engels* yet. This pupil's data were, therefore, not included in the figure. The three pupils who do not play any English-language games are, in fact, represented in Figure 14.

5.6. *Is there a difference in the CEFR level for English language proficiency between the Eibo and Vvto pupils?*

Table 4 shows the numbers of Eibo and Vvto pupils per CEFR level for English language proficiency:

	Op weg naar A1	A1	A2	B1	Total
N Eibo (%)	4 (22.22)	10 (55.56)	4 (22.22)	0 (0.00)	18 (100.00)
N Vvto (%)	5 (50.00)	4 (40.00)	0 (0.00)	1 (10.00)	10 (100.00)
Total	9	14	4	1	28

Table 4. Numbers and percentages of Eibo and Vvto pupils per CEFR level for English language proficiency

As shown in Table 4, half of the Vvto pupils scored *Op weg naar A1* (Approaching A1; 50.00%), and none scored A2. With regard to the Eibo pupils, most pupils scored A1 (55.56%). A Chi-square test for independence (with Yates Continuity Correction) indicated no significant association between level (Eibo vs. Vvto) and CEFR level for English language proficiency, $\chi^2(3, n = 28) = 5.88, p = .12, \text{Cramer's } V = .46^3$.

³ *Phi* would not work in this case, so *Cramer's V* is mentioned instead.

5.7. *Is there a relation between extracurricular English exposure in the form of playing English-language games and group 8 Eibo and Vvto pupils' CEFR levels for English language proficiency?*

The numbers of minutes of playing English-language games was listed in one column of the SPSS data sheet, and the other column contained a code which represents the CEFR level for English language proficiency for a particular pupil (1 = *Op weg naar A1* (Approaching A1), 2 = A1, 3 = A2, 4 = B1). All the games which the pupils had declared to play were taken into account here; only the pupil's data whose CEFR level for English language proficiency was missing were left out. Using a one-way ANOVA, it was measured if there are any statistically significant differences in the gaming times for the four CEFR levels. The descriptives of this one-way ANOVA are presented in Table 5, consisting of the number of pupils per CEFR level, the mean number of minutes of playing English-language games, the standard deviations, and the minimum and maximum amount of minutes spent on English gaming per day:

	N	Mean gaming time	Std. Deviation	Minimum	Maximum
Op weg naar A1	9	19.56	35.514	0	96
A1	14	64.50	66.392	0	204
A2	4	63.50	21.764	32	82
B1	1	16.00	.	16	16
Total	28	49.37	55.753	0	204

Table 5. Descriptives of the one-way ANOVA which was carried out too investigate any statistically significant differences in the gaming times for the four CEFR levels

According to Table 5, there were 9 pupils who scored the CEFR level *Op weg naar A1* (Approaching A1), 14 who scored an A1 level, 4 who scored an A2 level, and 1 who scored a B1 level on the *IEP Eindtoets Engels*. The pupils in the *Op weg naar A1* (Approaching A1) group spent, on average, 19.56 minutes on playing English-language games per day. For the

pupils who reached A1, this is 64.50 minutes per day, the pupils who reached A2 spent 63.50 minutes on gaming per day, and the only pupil who reached a B1 level on the *IEP Eindtoets Engels*, spent 16 minutes per day on gaming in English, on average. Hence, most pupils scored an A1 level, and the mean gaming time for pupils at this level is the largest. The standard deviations, however, are quite large. Levene's test for homogeneity of variances indicates whether the variance in scores is the same for each of the groups. The significance value for Levene's test was not greater than .05, which means that the assumption of homogeneity of variance has been violated. A post-hoc test, as well as a Welch or Brown-Forsythe test, could not be performed because the sum of case weights in the B1 group was equal to 1. Therefore, this pupil's data were left out, and another ANOVA was performed. When the numbers of minutes of playing English-language games for each CEFR level were compared, the one-way ANOVA showed no statistically significant differences, as the p -values were higher than 0.05. Overall, there was no statistically significant difference between groups as determined by one-way ANOVA ($F(3,24) = 1.52, p = 0.24$). A one-way between-groups analysis of variance was conducted to explore the impact of minutes of playing English-language games on the CEFR level for English language proficiency, as measured by the *IEP Eindtoets Engels*. This way, it could be tested whether Eibo pupils with different CEFR levels also have correspondingly different scores for their English-language gaming time. The Eibo pupils were divided into four groups according to their CEFR level for English language proficiency (Group 1: *Op weg naar A1* (Approaching A1); Group 2: A1; Group 3: A2; Group 4: B1). Table 6 shows the ANOVA descriptives for only the Eibo pupils' data, consisting of the number of pupils per CEFR level, the mean number of minutes of playing English-language games, the standard deviations, and the minimum and maximum amount of minutes spent on English gaming per day:

	N	Mean	Std. Deviation	Minimum	Maximum
Op weg naar A1	4	40.50	47.89	0	96
A1	10	71.60	74.95	0	204
A2	4	63.50	21.76	32	82
Total	18	62.89	60.21	0	204

Table 6. Descriptives of the one-way ANOVA for only the Eibo pupils

As shown in Table 6, there were 4 Eibo pupils who scored the CEFR level *Op weg naar A1* (Approaching A1), 10 who scored an A1 level, 4 who scored an A2 level, and no pupil who scored a B1 level on the *IEP Eindtoets Engels*. The pupils in the *Op weg naar A1* (Approaching A1) group spent, on average, 40.50 minutes on playing English-language games per day. For the pupils who reached A1, this is 71.60 minutes per day, and the pupils who reached A2 spent 63.50 minutes on gaming per day, on average. The standard deviations, however, are quite large. The assumption of homogeneity of variance has not been violated, as the significance value for Levene's test for homogeneity of variances is greater than .05. The significance value in this case was .14. There was no statistically significant difference at the $p < .05$ level in *IEP Eindtoets Engels* scores for the four CEFR level groups: $F(2, 17) = .35, p = .71$.

A one-way between-groups analysis of variance was conducted for the Vvto pupils to explore the impact of minutes of playing English-language games on CEFR level for English language proficiency, as measured by the *IEP Eindtoets Engels*. They were, therefore, also divided into four groups according to their CEFR level for English language proficiency (Group 1: *Op weg naar A1* (Approaching A1); Group 2: A1; Group 3: A2; Group 4: B1). Table 7 shows the ANOVA descriptives, consisting of the number of pupils per CEFR level, the mean number of minutes of playing English-language games, the standard deviations, and the minimum and maximum amount of minutes spent on English gaming per day:

	N	Mean	Std. Deviation	Minimum	Maximum
Op weg naar A1	5	2.80	3.56	0	8
A1	4	46.75	40.73	10	83
B1	1	16.00	.	16	16
Total	10	21.70	32.24	0	83

Table 7. Descriptives of the one-way ANOVA

According to Table 7, there were 5 pupils who scored the CEFR level *Op weg naar A1* (Approaching A1), 4 who scored an A1 level, no pupils who scored an A2 level, and 1 who scored a B1 level on the *IEP Eindtoets Engels*. The pupils in the *Op weg naar A1* (Approaching A1) group spent, on average, 2.80 minutes on playing English-language games per day. For the pupils who reached A1, this is 46.75 minutes per day, and the only pupil who reached a B1 level on the *IEP Eindtoets Engels*, spent 16 minutes per day on gaming in English, on average. The standard deviations, however, are quite large. There was no statistically significant difference at the $p < .05$ level in *IEP Eindtoets Engels* scores for the four CEFR level groups. However, the Between Groups significance value approached significance: $F(2, 9) = 3.01, p = .11$. Post hoc tests were not performed because the B1 group had fewer than two cases. This group has also been ignored in computing the test of homogeneity of variance.

The assumption of homogeneity of variance has been violated, as the significance value for Levene's test for homogeneity of variances is not greater than .05. The significance value here is .00. The Welch and Brown-Forsythe tests (so-called Robust Tests of Equality of Means) are preferable when the assumptions of the homogeneity of variance is violated, but these could not be performed as the sum of case weights in the B1 group was equal to 1. Hence, the comparison groups did not have the same variance and the significance level might be under- or overestimated. Therefore, the results, again, need to be interpreted with caution.

6. Discussion

The results of the current study are presented in the previous section. Now, a discussion of the results is given, and I relate the findings to those of previous studies.

Little was found in the literature on the question to what extent there is a relationship between the time which pupils spend on playing English-language games and their English language proficiency level. Much research, in fact, focuses on the influence of extracurricular English input in general on pupils' English language learning process, or takes into account only one specific (type of) English-language game. Most studies showed a positive influence of extracurricular English exposure in the form of English-language games on learner's English proficiency level.

This study has investigated the possible influence of extracurricular English input in the form of playing English-language games on Eibo and Vvto pupils' CEFR levels for English language proficiency as measured by the *IEP Eindtoets Engels*. The research question was as follows:

Is there a relation between extracurricular English exposure in the form of playing English games and group 8 pupils' CEFR levels for English language proficiency?

The results of this study indicate that there is no significant difference in the time the pupils in this study spent on playing English-language games, for the four CEFR levels for English language proficiency. As for the Eibo pupils in the current study, no significant difference was found in the number of minutes spent on playing English-language games for the four CEFR levels. This means that the mean number of minutes which the Eibo pupils at an *Op weg naar A1* (Approaching A1) level spend on playing English-language games was not statistically significantly different from the mean number of minutes which the Eibo pupils at

an A1 level spend on playing English-language games, and so on. The difference in the time spent on playing English-language games by the Vvto pupils for the four CEFR level groups, however, approached significance.

The sub-questions in this study were as follows:

- 1) *How much time do the eibo and vvto pupils in this study spend on extracurricular English gaming on average?*
- 2) *Is there a difference in the average amount of time which the eibo and vvto pupils spend on gaming?*
- 3) *What type of games do the eibo and vvto pupils play most on average?*
- 4) *Is there a difference in the type of games which the eibo and vvto pupils play?*
- 5) *What are the eibo and vvto pupils' CEFR levels for English language proficiency?*
- 6) *Is there a difference in the CEFR level for English language proficiency between the eibo and vvto pupils?*

With regard to these sub-questions, most of the pupils who have taken part in the current study play English-language games. Most of them play their most popular game (almost) every day, and when they are playing this game, most of them do so for one to two hours at a time. In total, the pupils in this study spent, on average, 46.90 minutes on playing English-language games per day. Surprisingly, the Eibo pupils spent, on average, statistically significantly more time on playing English-language games per day (62.89 minutes per day) when compared to the Vvto pupils (20.73 minutes per day). This is a striking result, as previous research has shown that children who start learning English at a young age (e.g. Vvto pupils, who usually start learning English at school at the age of 4-5) have more positive attitudes towards English and are very motivated to learn this language, compared to children

who start learning English at a later age (e.g. Eibo pupils, who usually start learning English at school when they are 10-11 years old; Blondin et al., 1998; Donato et al., 2000; and Cenoz, 2003). According to Barbee (2013), there is a correlation between motivation and the amount of exposure, so it was predicted that the Vvto pupils in this study would spend more time on playing English-language games than their Eibo peers. With regard to the preferred English-language game, *Minecraft*, *Call of Duty*, and *Grand Theft Auto* ended in the top 3. No significant association was found in the proportion of the Eibo and the Vvto pupils who either play or do not play English-language games. Moreover, there were no significant associations between the proportion of the Eibo and the Vvto pupils who play *Minecraft*, *CoD*, and *GTA*, or not. With regard to the pupils' CEFR levels for English language proficiency, most of them score an A1 level, followed by *Op weg naar A1* (Approaching A1), A2, and B1. No significant association was found between the proportion of pupils who scored an *Op weg naar A1* (Approaching A1), A1, A2, and B1 level, between the two groups of pupils, which suggests that the proportion of Eibo pupils who scored an A1 level, for example, was not statistically significantly different from the proportion of Vvto pupils who scored an A1 level. The two different school systems, i.e. Eibo and Vvto, then, do not seem to affect English language proficiency differently; however, the sample size was too small to make this claim strong.

Differently from earlier findings (Hoogendoorn & Philipsen, 2013; Rankin et al., 2006a; Rankin et al., 2006b; Sundqvist, 2009; Sylvén & Sundqvist, 2012), no evidence was found of a positive correlation between the time the pupils spent on playing English-language games, and their English language proficiency. The most likely explanation for this is related to the small sample size of the current study. As mentioned at the beginning of the previous chapter, the small sample size made it questionable whether any statistical test could be performed at all, and if that was the case, whether the outcomes would be reliable and

meaningful. Therefore, the results need to be interpreted with extreme caution. The conclusions which can be drawn from the results are probably not generalizable to other Eibo and Vvto schools, but can only be applied to the two schools which have taken part in the current study. As the difference in the number of minutes which Vvto spend on playing English-language games for the four CEFR levels for English language proficiency approached significance, it seems that there might be an influence of the time spent on English gaming on English language proficiency for at least one type of school in the Netherlands. If confirmed by future studies, this finding could have important implications for both teachers and parents of children in primary education, as they should be informed on how to implement English-language games in their lessons and teaching or parenting practices. It would, of course, be desirable that English-language computer games are played by pupils in primary school, if it was found that English computer games can have a positive influence on their CEFR levels for English language proficiency.

7. Conclusion

The purpose of the current study was to determine if there is a relationship between the time which the pupils in group 8 of two Dutch primary schools spend on playing English-language games, and their English language proficiency level as shown by the *IEP Eindtoets Engels*, created by Bureau ICE. The type of English education which is offered at primary school (i.e. *Engels in het basisonderwijs* (Eibo) or *Vroeg vreemdetalenonderwijs* (Vvto)) was also taken into account, to determine the number of pupils who play English-language games in the first place, the type of game which they play most, as well as in the time which these pupils spend on playing English-language games and their CEFR levels for English language proficiency.

Although the sample size in the current study was not large enough to reliably perform any statistical tests in the first place, this study has found that there were no statistically

significant differences in the time spent on playing English-language games and the Eibo and Vvto pupils' CEFR levels for English language proficiency. Overall, no statistically significant differences were found between the Eibo and the Vvto pupils, except for the mean number of minutes which they spend on gaming on a daily basis; the Eibo pupils in the current study played English-language games for a significantly larger number of minutes than the Vvto pupils.

There are some clear drawbacks of my approach, as well as limitations to the findings. First of all, only two schools have taken part in the current study. Unfortunately, this keeps the conclusions which can be drawn from this study from being generalizable to other Eibo and Vvto schools in the Netherlands, as the two schools cannot be considered representative for the whole population. Moreover, this study did not consider possible differences in the influence of the various types of games on the pupils' CEFR levels for English language proficiency. Perhaps a distinction could have been made between educational games and non-educational ones, but the question is to what extent the results would have been reliable, as the sample size was too small. There were some drawbacks to the questionnaire which I had created as well; whereas one question for the teachers asked in which group English was first offered, the teachers had to fill in how much time was spent on English lessons per group for the next question. Although the "Force Response" option in Qualtrics.com was not chosen, which means that the teachers could continue filling out the questionnaire without answering (each part of) this question, one teacher answered this question for all the eight groups at his school, whereas he declared in the previous question that English is only offered in group 8. This raised unnecessary questions about the English education which is offered at the Eibo school, and the teacher had to be contacted once more.

Other approaches to this topic could very well lead to new results. A future research avenue which could be explored within the field is to investigate the possible influence of

other sources of extracurricular English exposure on pupils' English language proficiency, such as watching English films or reading English books. It is possible, though, that different types of English exposure may affect English language proficiency in different ways or to different degrees. For example, learners have the possibility of using audiochat while playing a MMORPG, which can enhance the learners' fluency, whereas less interaction is possible when reading an English book or watching an English-language film. In the theoretical framework of this paper, some literature on extracurricular English exposure, apart from playing English-language games, was discussed. However, it might have been disadvantageous to contrast the current study with research on extracurricular English exposure in general, as English language proficiency is affected by different types of extracurricular English exposure differently.

Further research might explore the possible influence of playing English-language games on pupils' CEFR levels for English language proficiency at more Dutch schools, preferably every school which has taken the *IEP Eindtoets Engels*, so that these schools will be more representative for the whole Eibo and Vvto population and more generalizable conclusions can be drawn from the results. It is questionable if recruiting each Eibo and Vvto school in the Netherlands is better than recruiting only those who have taken the *IEP Eindtoets Engels*, as other Eibo and Vvto schools might use other tests to measure their pupils' English language proficiency, or even none at all. A better comparison could be made if each school had made the same test. Another possibility would be to administer an English language proficiency test in which a questionnaire was incorporated as part of a research, so that every pupil had to fill out the questionnaire immediately after the test had been taken, to have many respondents. The current study attempted to find as many schools as possible which would be available and willing to participate, but, eventually, found only two schools.

It would be interesting to compare the CEFR levels for English language proficiency among many Eibo and Vvto schools and to find out if there are differences in these levels between Eibo schools on the one hand, and Vvto schools on the other hand. If any statistically significant differences in CEFR levels for English language proficiency are found between two or more Eibo schools, it would be interesting to investigate what might cause this variation by conducting surveys on pupils' extracurricular English activities, observing the English lessons, and interviewing teachers and pupils about their experiences with the English language.

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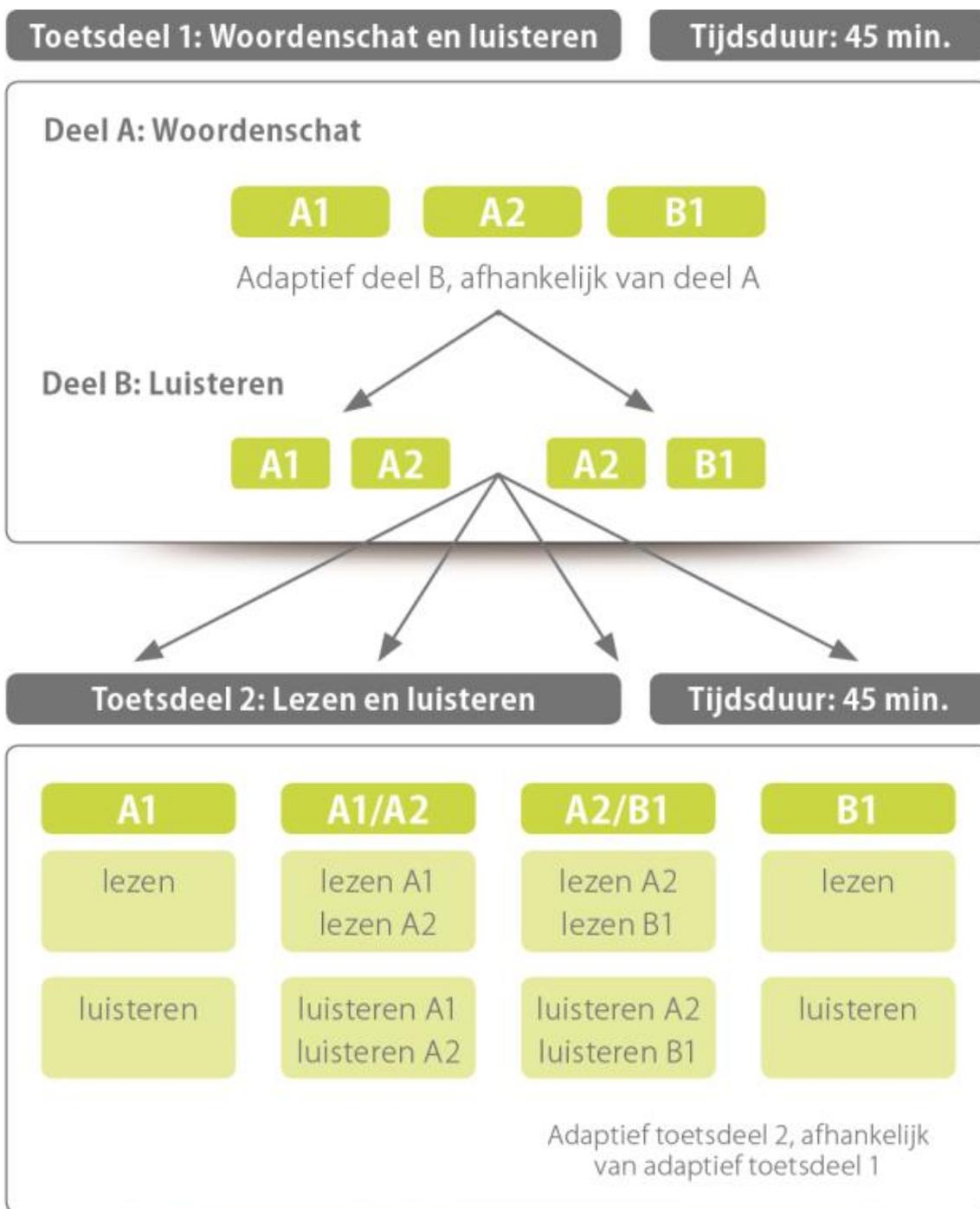
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Appendices

1. Dutch original of Figure 1 (Bureau ICE, 2016b)



2. *Questionnaire for pupils*

Naam school: _____

Voor- en achternaam: _____

Geslacht: Jongen Meisje

Leeftijd: 9 10 11 12 13

In welke groep ben je op deze school gekomen?

1 2 3 4 5 6 7 8

1. Wat doe je in je vrije tijd? Je kunt meerdere opties aankruisen.

Buiten spelen/chillen

Gamen

Knutselen/kleuren/tekenen

Lezen

Muziek luisteren

Sporten

Televisie kijken

Anders, namelijk _____

2. Speel je wel eens games?

Ja → ga door naar vraag 3

Nee → ga door naar vraag 8

3. Waar speel je wel eens games op? Je kunt meerdere opties aankruisen.

Computer

PlayStation

Smartphone

Tablet of iPad

Wii

Xbox

Anders, namelijk _____

4. Speel je wel eens Engelstalige games?

Ja → ga door naar vraag 5

Nee → ga door naar vraag 8

5. Welke Engelstalige games speel je wel eens? Schrijf de namen van de games op. Schrijf minimaal één naam op en maximaal vijf.

Naam van de game:
1.
2.
3.
4.
5.

6. Hoe vaak speel je deze games?

	(bijna) elke dag	1 keer per week	1 keer in de 2 weken	1 keer per maand	(bijna) nooit
Game 1	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Game 2	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Game 3	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Game 4	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Game 5	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

7. Hoe lang speel je de game meestal achter elkaar?

	Minder dan een half uur	Een half uur tot 1 uur	1 tot 2 uur	Meer dan 2 uur
Game 1	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Game 2	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Game 3	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Game 4	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Game 5	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

8. Welke taal spreek je thuis?

Arabisch

Duits

Engels

Frans

Fries

Nederlands

Spaans

Surinaams

Turks

Anders, namelijk _____

9. Welke talen spreek je nog meer? Je kunt meerdere opties aankruisen.

Arabisch

Duits

Engels

Frans

Fries

Nederlands

Spaans

Surinaams

Turks

Anders, namelijk _____

Dit is het einde van de vragenlijst.

Heel erg bedankt voor het invullen!

Groep 7	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
---------	-----------------------	-----------------------	-----------------------	-----------------------	-----------------------	-----------------------

Onderstaande vraag alleen beantwoorden als u bij vraag 4 “1” heeft geantwoord.

6. Vanaf welk schooljaar biedt de school Engels aan leerlingen aan vanaf groep 1?

2016-2017

2015-2016

2014-2015

2013-2014

2012-2013

2011-2012

2010-2011

2009-2010

2008-2009

2007-2008

Eerder dan 2007-2008

Weet ik niet

Dit is het einde van de vragenlijst.

Heel erg bedankt voor het invullen!

4. E-mail to schools

Onderwerp: Deelnemen onderzoek *IEP Eindtoets Engels*

Beste heer/mevrouw (achternaam),

Uw groep 8 leerlingen van (naam school) hebben dit schooljaar gewerkt met de *IEP Eindtoets Engels* van Bureau ICE. Vandaar dat ik, Jisca van de Kerkhof (stagiaire onderzoek bij Bureau ICE) u bij dezen benader met de vraag om deel te nemen aan een onderzoek naar de Engelse taalvaardigheid van leerlingen in groep 8.

Invloed van Engelse games op taalvaardigheid

Bij Bureau ICE houd ik mij bezig met een onderzoek naar de mogelijke invloed van het spelen van Engelstalige games op het taalvaardigheidsniveau Engels dat leerlingen in groep 8 behalen. Hiervoor wil ik de geanonimiseerde resultaten van de *IEP Eindtoets Engels* gebruiken. Dit onderzoek voer ik uit als onderdeel van de masteropleiding Meertaligheid en Taalverwerving aan de Universiteit Utrecht.

Vragenlijst invullen (3 minuten)

Door middel van een **vragenlijst** die de leerlingen van groep 8 en de leerkracht invullen, verzamel ik gegevens over het buitenschools taalcontact en het Engels onderwijs op uw school. De vragenlijst bestaat uit korte en eenvoudige vragen, zoals “Speel je wel eens games?” en “Welke Engelstalige games speel je?”. Het invullen van de vragenlijst duurt ongeveer **3 minuten**. De gegevens worden uiteraard anoniem verwerkt.

De vragenlijst kan online op een computer, smartphone of tablet worden ingevuld. U krijgt dan per e-mail een link om de vragenlijst te openen en een korte instructie. Indien gewenst kunt u de vragenlijst **per e-mail of post** ontvangen.

Meedoen?

Ik hoor graag of uw school interesse heeft om mee te werken aan dit onderzoek door te reageren op deze e-mail of op jvdkerkhof@bureau-ice.nl. U kunt mij ook telefonisch bereiken op 00-00000000. Als dank ontvangen de deelnemende groepen een leuke poster.

Alvast bedankt.

Met vriendelijke groet,

Jisca van de Kerkhof

5. *English questionnaire for pupils*

Name school: _____

First and last name : _____

Sex: Boy Girl

Age: 9 10 11 12 13

In which year did you enter this school?

1 2 3 4 5 6 7 8

1. What do you do in your spare time? You can choose multiple options.

Playing/chilling outside

Gaming

Colouring/drawing

Reading

Listening to music

Sporting

Watching Television

Other, namely _____

2. Do you ever play games?

Yes → go to question 3

No → go to question 8

3. Which device do you use to play games on? You can choose multiple options.

Computer

PlayStation

Smartphone

Tablet or iPad

Wii

Xbox

Other, namely _____

4. Do you ever play games in English?

Yes → go to question 5

No → go to question 8

5. Which English-language games do you ever play? Write down the names of the games. Write at least one name and no more than five.

Name of the game:
1.
2.
3.
4.
5.

6. How often do you play these games?

	(almost) every day	Once a week	Once every 2 weeks	Once a month	(almost) never
Game 1	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Game 2	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Game 3	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Game 4	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Game 5	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

7. For how long do you play these games at a time?

	Less than half an hour	Half an hour to 1 hour	1 to 2 hours	More than 2 hours
Game 1	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Game 2	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Game 3	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Game 4	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Game 5	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

8. Which language do you speak at home?

Arabic

German

English

French

Frisian

Dutch

Spanish

Sranan

Turkish

Other, namely _____

9. Which other languages do you speak? You can choose multiple options.

Arabic

German

English

French

Frisian

Dutch

Spanish

Sranan

Turkish

None

Other, namely _____

This is the end of the questionnaire.

Thank you very much for participating!

Group 6	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Group 7	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

The question below only needs to be answered if you answered "1" to question 4.

6. Since when does your school offer English to pupils from group 1?

2016-2017

2015-2016

2014-2015

2013-2014

2012-2013

2011-2012

2010-2011

2009-2010

2008-2009

2007-2008

Before 2007-2008

I don't know

This is the end of the questionnaire.

Thank you very much for participating!

7. English e-mail to schools

Subject: Participation research *IEP Eindtoets Engels*

Dear Mr/Mrs (last name),

Your pupils in group 8 of (name school) worked with the *IEP Eindtoets Engels* this year. That is why I, Jisca van de Kerkhof (research intern at Bureau ICE), address you to ask for your group 8 pupils' participation in an English language proficiency research.

Influence of English-language games on language proficiency

I am conducting research on the possible influence of playing English-language games on the English language proficiency which group 8 pupils attain. I would like to use the anonymised results of the *IEP Eindtoets Engels* for these purposes. This research is conducted as part of the Master's programme Meertaligheid en Taalverwerving at Utrecht University.

Filling in the questionnaire (3 minutes)

By means of a **questionnaire** to group 8 pupils and their teachers, I would like to gather information on the extracurricular language exposure and the English education at your school. The questionnaire contains short and simple questions, such as "Do you ever play games?" and "Which English-language games do you play?". Filling in the questionnaire takes approximately **3 minutes**. The results will be analysed anonymously.

The questionnaire can be filled in on a computer, smartphone or tablet. You will receive a link to open the questionnaire and a short instruction via e-mail. If you wish, you will receive the questionnaire via e-mail or regular mail.

Want to join?

I would like to hear whether your school is interested in participating in this research by replying to this e-mail or via jvdkerkhof@bureau-ice.nl. You can contact me on the phone on 00-00000000. As a reward, the participating groups will receive a nice poster.

Thanking you in advance,

Kind regards,

Jisca van de Kerkhof

8. Online questionnaire for Eibo teachers

Naam school:

Voor- en achternaam:

Vul deze zin aan: Ik ben een ...

Bent u een moedertaalspreker van het Engels?

Ja

Nee

Hoeveel jaar ervaring heeft u met het verzorgen van de Engelse lessen?

1 jaar



Verzorgt u alle lessen bij deze klas, of alleen de Engelse lessen?

Alle lessen

Alleen de Engelse lessen

Vanaf welk leerjaar biedt uw school Engels aan leerlingen aan?

1

2

3

4

5

6

7

8

<<

>>

Hoeveel uur Engelse les wordt per week ongeveer aan de leerlingen op uw school aangeboden per leerjaar?

	Geen	Minder dan een half uur	Een half uur	1 uur	2 uur	Meer dan 2 uur
Groep 1	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Groep 2	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Groep 3	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Groep 4	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Groep 5	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Groep 6	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Groep 7	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>
Groep 8	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>

<<

>>

Dit is het einde van de vragenlijst.
Heel erg bedankt voor het invullen!

9. Online questionnaire for Vvto teachers

Naam school:

Voor- en achternaam:

Vul deze zin aan: Ik ben een ...

Bent u een moedertaalspreker van het Engels?

Ja

Nee

Hoeveel jaar ervaring heeft u met het verzorgen van de Engelse lessen?

1 jaar



Verzorgt u alle lessen bij deze klas, of alleen de Engelse lessen?

Alle lessen

Alleen de Engelse lessen

Vanaf welk leerjaar biedt uw school Engels aan leerlingen aan?

1

2

3

4

5

6

7

8

<<

>>

Vanaf welk schooljaar biedt uw school al Engels aan vanaf groep 1?

2016-2017

2015-2016

2014-2015

2013-2014

2012-2013

2011-2012

2010-2011

2009-2010

2008-2009

2007-2008

Eerder dan 2007-2008

Weet ik niet

Hoeveel uur Engelse les wordt per week ongeveer aan de leerlingen op uw school aangeboden per leerjaar?

	Geen	Minder dan een half uur	Een half uur	1 uur	2 uur	Meer dan 2 uur
Groep 1	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>
Groep 2	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>
Groep 3	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>
Groep 4	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>
Groep 5	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>
Groep 6	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>
Groep 7	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>
Groep 8	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>

<<

>>

Dit is het einde van de vragenlijst.
Heel erg bedankt voor het invullen!

10. Online questionnaire for pupils who do not play English-language games

Naam school:

Voor- en achternaam:

Vul deze zin aan: Ik ben een ...

 Leerkracht Leerling

Geslacht:

 Jongen Meisje

Leeftijd

 9 10 11 12 13

In welke groep ben je op deze school gekomen?

 1 2 3 4 5 6 7 8

1. Wat doe je in je vrije tijd? Je kunt meerdere opties aankruisen.

Buitenspelen

Gamen

Knutselen/kleuren/tekenen

Lezen

Muziek luisteren

Sporten

Televisie kijken

Anders, namelijk

2. Speel je wel eens games?

Ja

Nee

<<

>>

3. Waar speel je wel eens games op? Je kunt meerdere opties aankruisen.

Computer

PlayStation

Smartphone

Tablet of iPad

Wii

Xbox

Anders, namelijk

4. Speel je wel eens Engelstalige games?

Ja

Nee

<<

>>

8. Welke taal spreek je thuis?

Arabisch

Duits

Engels

Frans

Fries

Nederlands

Spaans

Surinaams

Turks

Anders, namelijk

<<

>>

9. Welke talen spreek je nog meer? Je kunt hier meerdere opties aankruisen.

<input type="checkbox"/>	Arabisch
<input checked="" type="checkbox"/>	Duits
<input checked="" type="checkbox"/>	Engels
<input checked="" type="checkbox"/>	Frans
<input type="checkbox"/>	Fries
<input type="checkbox"/>	Spaans
<input type="checkbox"/>	Surinaams
<input type="checkbox"/>	Turks
<input type="checkbox"/>	Geen
<input type="checkbox"/>	Anders, namelijk
<input type="text"/>	

Dit is het einde van de vragenlijst.
Heel erg bedankt voor het invullen!

11. Online questionnaire for pupils who play English-language games

Naam school:

Voor- en achternaam:

Vul deze zin aan: Ik ben een ...

 Leerkracht Leerling

1. Wat doe je in je vrije tijd? Je kunt meerdere opties aankruisen.

Buitenspelen

Gamen

Knutselen/kleuren/tekenen

Lezen

Muziek luisteren

Sporten

Televisie kijken

Anders, namelijk

2. Speel je wel eens games?

Ja

Nee

Geslacht:

Jongen

Meisje

Leeftijd

9

10

11

12

13

In welke groep ben je op deze school gekomen?

1

2

3

4

5

6

7

8

<<

>>

3. Waar speel je wel eens games op? Je kunt meerdere opties aankruisen.

<input checked="" type="checkbox"/> Computer
<input type="checkbox"/> PlayStation
<input type="checkbox"/> Smartphone
<input type="checkbox"/> Tablet of iPad
<input checked="" type="checkbox"/> Wii
<input type="checkbox"/> Xbox
<input type="checkbox"/> Anders, namelijk
<input type="text"/>

4. Speel je wel eens Engelstalige games?

<input checked="" type="radio"/> Ja	<input type="radio"/> Nee
-------------------------------------	---------------------------

<< >>

5. Welke Engelstalige games speel je wel eens? Schrijf de namen van de games op. Schrijf minimaal één naam op en maximaal vijf.

Game 1	<input type="text" value="Minecraft"/>
Game 2	<input type="text" value="Call of Duty"/>
Game 3	<input type="text" value="GTA"/>
Game 4	<input type="text"/>
Game 5	<input type="text"/>



6. Hoe vaak speel je deze games?

	(bijna) elke dag	1 keer per week	1 keer in de 2 weken	1 keer per maand	(bijna) nooit
Game 1	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Game 2	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Game 3	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

7. Hoe lang speel je de game meestal achter elkaar?

	Minder dan een half uur	Een half uur tot 1 uur	1 uur tot 2 uur	Meer dan 2 uur
Game 1	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>
Game 2	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>
Game 3	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>



8. Welke taal spreek je thuis?

Arabisch

Duits

Engels

Frans

Fries

Nederlands

Spaans

Surinaams

Turks

Anders, namelijk

<<

>>

9. Welke talen spreek je nog meer? Je kunt hier meerdere opties aankruisen.

<input type="checkbox"/>	Arabisch
<input checked="" type="checkbox"/>	Duits
<input checked="" type="checkbox"/>	Engels
<input checked="" type="checkbox"/>	Frans
<input type="checkbox"/>	Fries
<input type="checkbox"/>	Spaans
<input type="checkbox"/>	Surinaams
<input type="checkbox"/>	Turks
<input type="checkbox"/>	Geen
<input type="checkbox"/>	Anders, namelijk
<input type="text"/>	

Dit is het einde van de vragenlijst.
Heel erg bedankt voor het invullen!