

UNIVERSITY OF JYVÄSKYLÄ

Learning English vocabulary using the Internet: a quantitative study of a group of first-year upper secondary students

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DEPARTMENT OF LANGUAGES
2012

JYVÄSKYLÄN YLIOPISTO

Tiedekunta – Faculty Humanistinen tiedekunta	Laitos – Department Kielten laitos
Tekijä – Author Milla Koivuniemi	
Työn nimi – Title Learning English vocabulary using the Internet: a quantitative study of a group of first-year upper secondary students	
Oppiaine – Subject Englanti	Työn laji – Level Kandidaatin tutkielma
Aika – Month and year Toukokuu 2012	Sivumäärä – Number of pages 21 sivua + 1 liite
Tiivistelmä – Abstract <p>Internetin käytön yleistyttyä monet tieteenalat ovat alkaneet tutkia sitä. Internetin käytöllä on kielitieteessä erityinen arvo, sillä suuri osa Internetin sisällöstä on kirjoitusta ja nettivideoiden yleistyttyä myös puhetta. Internetin suurimpana käyttäjäryhmänä nuorisosaama omaksuu Internetiä käyttäessään paljon englannin kieltä, sillä enemmistö sisällöstä on englanniksi. Tutkijoita kiinnostaa se, miten paljon nuoret oikeastaan omaksuvat vierasta kieltä Internetiä käyttäessään.</p> <p>Tämä tutkimus pyrki selvittämään, miten lukiolaisten Internetin käyttö hyödyttää heidän englannin sanasto-osaamistaan. Tutkimusryhmänä oli 28 oppilaan ryhmä lukion ensimmäisen vuosiluokan opiskelijoita. Heidän sanasto-osaamistaan testattiin 80 sanaa käsittävällä tehtävällä, jossa heidän piti valita sanalle joko synonyymi tai sanaan liittyvä sana. Lisäksi heidän Internetin käyttöään kartoitettiin taustakyselyllä. Aineisto analysoitiin SPSS-ohjelmalla, jossa tehtiin vertailuja muuttujien välillä.</p> <p>Tuloksista käy ilmi, että enemmän englanninkielisiä sivuja käyttävät saivat parempia tuloksia sanastotehtävästä. Internetin kokonaiskäyttöajalla ei kuitenkaan todettu olevan suoraa korrelaatiota sanasto-osaamiseen. Vaikka Internetin käyttö oli yhtä suosittua sekä tyttöjen että poikien keskuudessa, pojat kuitenkin käyttivät enemmän englanninkielisiä sivustoja kuin tytöt. Mielenkiintoinen havainto oli myös, että tyttöjen ja poikien englannin sanasto-osaamisessa tai arvosanoissa ei ollut paljon eroa. Tutkitun ryhmän pienen koon vuoksi on vaikeaa suoraan yleistää tuloksia koskemaan koko populaatiota, mutta voidaan olettaa, että samat tulokset saattaisivat ilmetä myös suuremmissa tutkimuksissa. Opettajien olisi hyvä hyödyntää nuorten Internetin käyttöä rohkaisemalla heitä etsimään itseään kiinnostavia vieraskielisiä sivustoja, jolloin he omaksuvat vieraan kielen sanastoa vapaa-ajallaan.</p>	
Asiasanat – Keywords Sanasto-osaaminen, Internet, vocabulary, L2 learning, vieraiden kielten oppiminen	
Säilytyspaikka – Depository	
Muita tietoja – Additional information	

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1 INTRODUCTION

New technologies have raised the need for their research in all fields of science, including linguistics. Studies that concentrate on language use with the help of computers and mobile phones are emerging all the time. The Internet is a vast environment in which language is used in many ways, sometimes even in the form of its own special slang, 'online language'. Most of the content in the Internet is in written form, and majority of it is English. It provides linguists with many possibilities for study. It is often implied that online language deteriorates the youth's language skills, but studies by for example Plester et al. (2009) and Thurlow (2003) show that online language has its benefits for encouraging creativity and interest in writing. Therefore, the thought that the Internet is beneficial for language learning is gaining support.

My own experiences as well as fellow English students' experiences have made me wonder if the use of computers or the Internet has a large impact on acquisition of English. Recently a pro gradu study at the University of Helsinki showed that boys are better in English than girls because they are acquiring English skills through playing video games. The use of computers and the Internet, in the meantime, seems to be more gender-neutral since most of the young population is active as computer and Internet users. Thus, the Internet provides another kind of look into the youth's language learning than video games do at the present, as it does not attract only one sex. In this study, I want to find out how the use of the Internet affects the English vocabulary skills of young Finnish learners. Studies about the relationship between language and technology have been conducted before, but there has not been much study about this topic concerning Finnish language learners in particular.

For the present study, I wanted to concentrate on the knowledge of one linguistic phenomenon in particular. I chose vocabulary, since it is one of the most emphasized areas in language teaching, alongside grammar, reading and writing comprehension. I also found it most interesting and fairly easy to measure. With the help of a vocabulary test and a questionnaire about use of the Internet, I studied a small group of 28 pupils consisting of first year upper secondary school students in a school in Jyväskylä. My goal was to get some information about how the use of the Internet affects the English vocabulary skills of Finnish pupils.

First, I will look at some background information. Then I will present my study questions and hypotheses, after which I will elaborate on my methods for conducting the study. In the results section, I will first describe my data through some frequency tables and percentages. I will analyze my results statistically and look which phenomena are related to one another. The statistical analysis will be done with the help of SPSS statistics software. Finally, I draw some conclusions based on my findings.

2 THEORETICAL BACKGROUND

2.1 LEARNING ENGLISH OUTSIDE THE CLASSROOM

The English language is present everywhere in the Western society. English is in TV, movies, reading and literally everywhere in our everyday lives. Most importantly, English is the dominant language of the Internet. According to a survey by W3techs (2012), English is the content language of 55.8% of the one million most visited websites. To put this into perspective, the second most used content language is German with only a usage of 6.6% in the one million most visited websites. Moreover, the youth in Finland use the Internet frequently. As much as 99% between the ages 16-24 have used the Internet at least once in the last three months, and 73% of them use it several times per day (Tilastokeskus, 2011). Koivumäki (2009) found in his study of Finnish upper secondary school students that over 50% of the web pages that the participants browsed were English-based. In other words, the youth is constantly in close contact with the English language and thus they are undoubtedly taking it in. In my study, I wish to estimate just how beneficial the Internet is for youth's English acquisition. My interest is specifically in vocabulary because it is one of the most important and emphasized aspects of learning a language.

The vocabulary that students acquire from school is often not sufficient for becoming proficient in the English language. Häcker (2008) investigated the vocabulary given in English foreign language textbooks of German, and concluded that they do not lead to acquisition of the needed core vocabulary. On the one hand, it is certain that one comes in more contact with the English language than with the German language outside the classroom. On the other hand, it is up to the student if she or he will have recreational contact with English. In other words, the student chooses whether or not to watch English television shows, movies, read English books or finally, to browse English

web sites. In the last-mentioned case, the possibility of finding something of one's interest and learning the language at the same time is without doubt the largest. Therefore, it is important to study if browsing the web in free time significantly helps students in learning English and acquiring vocabulary. If this is the case, teachers should encourage students to find an English website that interests them and in this way get more students to find the benefits that browsing the web has on language learning.

2.2 LANGUAGE ACQUISITION AND TECHNOLOGY

Many studies have been conducted about the relationship between technology and language. Some of them have focused on attitudes of the participants while some have taken concrete test scores into account. Overall, the results of multiple studies seem to suggest that active leisure use of the Internet is beneficial for one's English skills.

Reading online texts, both in one's own time and when assigned, is extremely good for acquiring necessary language skills. Chuarayapratib (2005) conducted a study exploring the correlation of language acquisition and reading for pleasure online at a Thai university. The result was that the students who spent more time reading on the Web scored better on reading tests. Furthermore, Alshwairkh (2005) studied ESL business students' approaches and attitudes towards learning vocabulary through Internet reading. In the study, he divided the participants into two groups, consisting of readers and non-readers. Interestingly enough, he also monitored the participants' vocabulary knowledge throughout an 8-week period. The results showed that those who were assigned to do online reading scored higher in the post-test.

The youth themselves also feel that they learn through browsing the Web. Koivumäki (2009) studied upper secondary students' motivation in relation to learning English in the Internet. Koivumäki's (2009) aim was to chart how the Internet affected young people's motivation, skills and attitudes towards learning English. The results showed that over 80% felt motivated to learn English outside the classroom. In addition, well over 50% of the web pages they browsed were English-based. Finally, 10 out of 21, that is, 48% of the participants stated that the Internet has been of great help when learning English. All in all, young people view learning through the use of

Internet positively. They enjoy visiting English sites for pure leisure purposes, and may even visit them more than Finnish sites.

2.3 TESTING VOCABULARY RANGE

In order to test the range of the participants' vocabulary, a suitable test method is needed. Gaining the most accurate result for the purpose of this study means that the test should provide an approximate value of the pupils' range of vocabulary without being overtly exhausting for the participants. The test will also need to test second language learners' vocabulary in particular and, if possible, it should be suitable for testing the skills of the chosen age group. As the methods section of this study reveals, the vocabulary test I chose measures if the pupil understands a word's meaning and can associate it with another word, either its synonym or a word related to it. The methods section also reveals how I chose this particular test group so that the vocabulary test gives results that describe the pupils' vocabulary range well.

It needs to be taken into consideration what my study method can and cannot reveal about vocabulary range. Alshwairkh's (2005) study revealed that there were qualitative differences between different areas of vocabulary knowledge in the results of the participants who engaged in vocabulary learning through Internet reading; readers scored higher in tests of word familiarity and word meaning levels than they did in word form and word usage levels. Furthermore, in a final vocabulary test, readers scored relatively high on the word meaning level while the scores at the word usage level were relatively low. In the light of this study, it needs to be taken into account that while my test method provides information of word familiarity and meaning, it does not provide knowledge about how the participants understand the form and usage of words. In other words, it does not reveal every aspect of vocabulary knowledge.

3 THE PRESENT STUDY

My research questions are the following:

1. How much do pupils use English websites, and how much of their time spent online is spent on English websites?
2. Does the use of the Internet affect the pupils' vocabulary knowledge?

3. Does the use of the Internet correlate with their grade in English?

As regards the first question, my hypothesis was that there will be mainly two groups; pupils who use more Finnish sites, and pupils who prefer visiting English sites. Of these two groups, I expect there to be more of pupils who mostly visit Finnish sites, leaving those who browse English sites more to be a minority. This is because Finns use the Internet so greatly today that there is a lot more demand for Finnish sites, and supply is consequently ever growing. In addition to this, a lot of the most popular websites today are localized, for example Facebook and Youtube. This can be compared with the situation ten or more years ago when most websites were in English.

Considering the second question, my working hypothesis is that the pupils who use the Internet more will have a broader vocabulary and will recognize and understand more words. Whether or not one chooses deliberately to use English sites, one is bound to take in a lot of English since a lot of content in the Internet is only in English. Thus, it can be expected that a person who uses the Internet a lot would also have taken in a lot of English outside the classroom.

Thirdly, I wished to know whether the pupils' knowledge of vocabulary would reflect in their English grade. In other words, I wanted to know if pupils who use the Internet more have better understanding of vocabulary and whether it shows in their English grade. My working hypothesis is that it will not necessarily show. This is because while a pupil may have good competence in English vocabulary due to learning English outside the classroom, the pupil might not have the enthusiasm to concentrate on their school work, or enthusiasm to develop their skills in other areas of language apart from vocabulary. Thus, it provides an interesting insight into pupils' motivation in schoolwork.

4 METHODS

I conducted my study in an upper secondary school in Jyväskylä. The participants were first year pupils and there were 28 of them in total. Since the group was defined by the teacher in charge, there was no control over the group's consistency. As a result, the group consisted mostly of boys (N=19) (Table 1).

Table 1: Gender distribution of the participants

		Gender	
		Frequency	Percent
Valid	Boy	19	67,9
	Girl	9	32,1
	Total	28	100,0

I decided to study this particular age group, because on the basis of the results of two preliminary test subjects I defined this age group to fit my purposes. My preliminary test subjects were a person who has vocational education and a person who is currently in second grade in upper secondary school. The scores received were 44 and 50. Originally I was thinking about conducting my study on secondary school students, but on the basis of the preliminary results I thought the vocabulary test might be hard for them, and it might not reveal much about their vocabulary knowledge. Thus, I decided to conduct my study with upper secondary school students, but by choosing the first grade I was still close to the original age group I intended to test. Furthermore, I thought upper secondary school students might be more motivated to concentrate in my vocabulary test as upper secondary school is optional, unlike secondary school.

In order to conduct my study, I prepared an enquiry, which is quantitative in nature. It consists of a vocabulary test and a questionnaire about one's use of the Internet. The vocabulary test is from an external source with a few changes made, whereas the questionnaire consists of questions which I made based on my own interests and hypotheses.

4.1 THE VOCABULARY TEST

The vocabulary test is from a website called ForumEducation which provides online learning materials for learning English. I contacted a representative of the online learning environment and asked for permission to copy the vocabulary test. The website also provided a key to interpreting the results of the vocabulary test, but in my study I will not rely on the original assessment of the results, because the website does not refer to any sources and thus is not suitable in academic context. However, the vocabulary test itself can be considered to be sufficient for evaluating a

pupil's competence in recognizing and understanding English vocabulary. This is because by the nature of the task, it tests how one understands words in a very clear-cut way.

The vocabulary test consists of 80 vocabulary-related tasks. In each of these tasks, one is given an English word, and five options which are other English words. The goal is to choose a word from the given options that is in some way connected to the given word. The tasks in the vocabulary test can be divided into two types: tasks where one has to find a synonym for the word (example 1), and tasks where one needs to find a word related to the given word (example 2).

Example 1: a task where one has to find a synonym

experience

- a) careful b) industry c) know-how d) loneliness e) pleasure

Example 2: a task where one has to find a related word

during

- a) crisis b) round c) time d) tool e) weapon

As regards the compilation of the tests, the selection of words is based on the Birmingham Corpus, which consists of 20.3 million words. According to information provided by ForumEducation, the corpus has been lemmatized into 34,000 lemmas representing the most common words in English by the staff of the University of Gothenburg. In the test that was used for this study words were picked within the 8,000 most frequent words in the English language. These 8,000 words were divided to four frequency groups, or frequency bands, of 2,000 words, the first band containing the 2,000 most common words and the fourth band the 2,000 least common words. For the test, 20 words were picked at random from each frequency band, which makes the total number of words 80. In summary, the vocabulary test was generated by picking words evenly from the 8,000 most common lemmas found in the Birmingham Corpus.

Some changes had to be made in the vocabulary test in order to make the task clearer to understand and to get a result that would sufficiently reflect the pupils' true knowledge of words. In other

words, these changes were made so that the task itself would not obstruct getting the result closest to one's real skills.

First of all, I wrote instructions to the informants about what they were supposed to do. The original task had no instructions, which made the task complicated to understand at first. I wrote these instructions in Finnish, and made one for each different section of the vocabulary test.

Secondly, and most importantly, I divided the words into two separate tasks: the task where one had to find synonyms, the other in which one had to find words that are related to the given word. Inspecting the original task, I noticed that there was an irregular change between these two different word groups in the task; at times one had to find a synonym, at others a word related to the given one. To clarify the task, I divided the two categories. The separation is based on searching the meaning of each word in both the *MOT Collins English Dictionary 3.0* and the *MOT Collins Compact Thesaurus*, and in this way defining the category of each word. Some words, however, can be seen as belonging to both groups. For example, the word *harvest* is both a noun and a verb, so in its verb form, it is related to the word *crop* and in its noun form is a synonym to the word *crop*. The words belong to both categories usually because they have both a verb and a noun use. In these cases, I usually categorized them according to my own consideration about which occasion might be more common for learners of English. For example, with the word *toy*, to which the correct answer is *play*, I categorized it under words that are related to one another, since I thought it might be more familiar to the pupils in that context.

Thirdly, I made some changes to the options given. Two of the tasks contained some options that were in some way peculiar. For example, in one task I changed the option *job* to *knob*, because the word *job* was erroneously repeated two times in the given options (example 3). The options given were rhyming words, hence I chose the word *knob* in replacement, which is neither a synonym to nor related to the word *work*. In addition to this change, I changed an option in another task, because the task provided two options which can both be seen as correct answers.

Example 3: a task in which one option was changed

task

- a) job b) mob c) knob d) rob e) sob

4.2 THE QUESTIONNAIRE

In order to chart how the studied group uses the Internet, I compiled a questionnaire (Appendix 1). In the questionnaire, I asked the informants a few basic background questions: gender and their most recent English grade. Regarding use of the Internet, I asked four questions; “how many hours per day do you use the Internet actively”, “how large a portion of the sites you browse are English”, “how much of your time spent online do you spent on English sites”, and lastly I asked the pupil to name three sites he or she uses the most.

I originally asked the two background questions mainly as curiosities, but in the end they turned out to be a valuable part of my analysis. The reason I asked for gender is that I wished to be able to compare the results between boys and girls if I wanted to. Also, I wanted some background information about the pupils’ success in school English, which is why I asked for their most recent English grade.

As mentioned before, I asked four questions about the use of Internet. With each of these questions, I wanted to make sure I get a comprehensive look into a pupil’s use of the Internet. Foremost, I wanted to know how much the pupils use the Internet altogether. Secondly, I wanted to know how much the pupils visit English websites. I divided this into two questions, because I wanted to know both how much and how long they use English websites. These two questions may seem very similar at first, but one must realize that while someone might use more English sites by the number, in reality one can spend more time on the few Finnish sites one uses. While the results show that the percentage of use and the percentage of time strongly correlated, some pupils did show differences as regards their answers to these two questions. Lastly, as a curiosity I wanted to ask which sites the pupils use the most. The purpose of this was to chart which sites are most popular and, more importantly, which language these sites are written in.

4.3 INTERPRETING THE DATA

I used statistical analysis for interpreting the results, which is common in quantitative studies. I concentrated on the total score of the vocabulary test, without investigating how pupils did on specific words. I entered the vocabulary test score and the answers to the questionnaire into IBM SPSS statistics v.20 software, and made comparisons using mainly Pearson product-moment correlation coefficient as my basis for comparison. For interpreting the correlation coefficient, I used the handout from the University of Jyväskylä course TILP150, which is a basic course in statistics. According to its guidelines, the basic interpretation is the following:

Value	Meaning
[-1...0]	The dependency is negative, i.e. when the value of one variable rises, the other one declines.
[0]	There is no dependency, i.e. there is no correlation between the variables.
[0...1]	The dependency is positive, i.e. when the value of one variable rises, the other one rises as well.

I also paid some attention to the p-value, which marks statistical significance when its value is under 0.05. All in all, I made tables comparing the things that seemed most relevant and provided answers for my working hypotheses. In addition, I made some frequency tables to describe the basic consistency of the studied group.

5 RESULTS

First of all, I will present some frequencies of the tested variables. These summarize the most frequent answers the pupils gave as well as the scores received from the vocabulary test. Finally, I will present comparison between variables, investigating what factors significantly depended on one another. These comparisons serve as basis for my interpretation of the results and define whether my working hypotheses were supported or contradicted by the data.

5.1 SCORE DISTRIBUTION IN THE VOCABULARY TEST

The results of the vocabulary test show many interesting things. The scores vary, the lowest score being 20 points, and the highest 65 points out of a total of 80 points. The score range shows that the test was good for measuring the vocabulary knowledge of this study group, since it was neither too hard nor too easy for anyone. Furthermore, 11 out of 28 pupils scored above 40, in other words knew more than half of the words. Thus, most of the pupils scored under 40 points, which is half of the maximum score, and the cumulative percent in Table 2 shows that 50 % of pupils scored under 35. There was no significant difference between how boys and girls scored on the test either. This will be discussed further in the Correlations-section in 5.3.

Table 2: Scores of the vocabulary test

Vocabulary test			
	Frequency	Percent	Cumulative Percent
Valid	20	1	3,6
	25	2	7,1
	26	1	3,6
	27	2	7,1
	29	1	3,6
	31	1	3,6
	32	3	10,7
	33	2	7,1
	35	1	3,6
	37	1	3,6
	38	1	3,6
	39	1	3,6
	42	2	7,1
	44	1	3,6
	49	2	7,1
	52	1	3,6
	54	1	3,6
	59	1	3,6
	63	1	3,6
	64	1	3,6
	65	1	3,6
Total	28	100,0	

5.2 USE OF THE INTERNET

As regards the use of the Internet among pupils, there were many interesting observations to be made. First of all, over 50 % of the test subjects used the Internet more than two hours per day, as

Table 3 demonstrates. While it takes a vast portion of the test subjects' free time, it is hardly surprising when one takes into account the statistics provided by Tilastokeskus about the use of the Internet. Only a few told that they use the Internet less than one hour per day or more than three hours per day, so nearly the whole study group used the Internet from 1-3 hours per day.

Table 3: Use of the Internet among test subjects

Use of the Internet (h)		Frequency	Percent
Valid	less than 1 h	1	3,6
	1-2 h	12	42,9
	2-3 h	13	46,4
	more than 3 h	2	7,1
Total		28	100,0

As a curiosity, I also asked the pupils to name three sites they visit the most, and in which language they use these websites. The websites mentioned were versatile, but certain sites came up repeatedly (Table 4). Most interestingly, there was variation between the languages in which a site is used. The most popular site was Youtube, with 18 pupils using it in English, while seven pupils used it in Finnish. In addition, one pupil used Youtube as well, but did not specify in which language he uses it. The second most popular site was Facebook with 21 pupils using it in Finnish, with two pupils using it in English. The rest of the websites mentioned had from one to four users in total, so no other specific site rose from the data. It is interesting that the most popular website was mostly used in English although there is the possibility to use it in Finnish as well. This shows that English websites are very popular, and that young users often prefer to use them in their original language although they also have the option to use them in their own mother tongue. In addition, although Facebook was mostly used in Finnish, there were also those who used it in English. With Youtube it might be that pupils use it in English because it is most often automatically in English and they would have to manually change the language from a menu bar. With Facebook, however, the default language is Finnish for Finnish users and one has to manually change the language. In other words, the two pupils who use Facebook in English have had to manually change the language into

English, which is an interesting phenomenon. Also this shows that some users prefer to browse the Web in English instead of their own mother tongue.

Table 4: Visited sites

Visited sites		Frequency	Percent
Valid	facebook (suo)	21	27,3
	youtube (eng)	18	23,4
	youtube (suo)	7	9,1
	iltalehti (suo)	3	3,9
	wikipedia (suo)	3	3,9
	9gag (eng)	2	2,6
	bloglovin' (eng)	2	2,6
	facebook (eng)	2	2,6
	iltasanomat (suo)	2	2,6
	"blogeja" (eng)	1	1,3
	aapeli (suo)	1	1,3
	bassoradio (suo)	1	1,3
	Flickr (eng)	1	1,3
	futisforum (suo)	1	1,3
	indiedays (suo/en)	1	1,3
	kuvake (suo)	1	1,3
	lumitykki (suo)	1	1,3
	newschoolers (eng)	1	1,3
	NHL (eng)	1	1,3
	Smosh (eng)	1	1,3
	steam (eng)	1	1,3
	twitter (suo/eng)	1	1,3
	vimeo (eng)	1	1,3
	we heart it (eng)	1	1,3
	wikipedia (suo/en)	1	1,3
	youtube (---)	1	1,3
	Total	77	100,0

5.3 CORRELATIONS

I entered my data into a SPSS statistics program, and made comparisons between the variables. I chose to compare specific factors according to my working hypotheses and other things that were most relevant for the purpose of this study. The variables I compared were the following:

1. Vocabulary test score and use of the Internet
2. Vocabulary test score and use of English sites
3. Vocabulary test score and use of English sites according to time
4. Vocabulary test score and most recent English grade

5. Gender and use of the Internet
6. Gender and vocabulary test score
7. Gender and use of English sites
8. Gender and use of English sites according to time
9. Gender and most recent English grade

There was a positive correlation between the time spent on English sites and the result of the vocabulary test. It can be interpreted as statistically significant, having a fairly noticeable positive correlation. In other words, the more one's time online was spent on English sites, the more likely one was to score better in the vocabulary test (Table 5). This would indicate that spending more time on English sites does have a positive impact on a pupil's English vocabulary knowledge. Furthermore, there was a small positive correlation between the vocabulary test and the use of English sites. While it is not necessarily interpreted as highly significant statistically, there was some detectable positive correlation between how many English sites one visited and one's score on the vocabulary test (Table 5). In other words, the more pupils used English sites, the better they scored on the vocabulary test. This also brings out that using English websites is beneficial for one's learning of vocabulary.

Table 5. Correlations between the vocabulary test, use of the Internet, use of English sites and use of English sites according to time.

		Correlations			
		Vocabulary test	Use of the Internet (h)	Use of English sites	Use of English sites according to time
Vocabulary test	Pearson Correlation	1	,092	,261	,305
	Sig. (2-tailed)		,642	,180	,115
	N	28	28	28	28
Use of the Internet (h)	Pearson Correlation		1	,084	,091
	Sig. (2-tailed)			,672	,644
	N		28	28	28
Use of English sites	Pearson Correlation			1	,940**
	Sig. (2-tailed)				,000
	N			28	28
Use of English sites according to time	Pearson Correlation				1
	Sig. (2-tailed)				
	N				28

** . Correlation is significant at the 0.01 level (2-tailed).

There was a great difference between how boys and girls browsed English websites. Statistical analysis shows that both the use of English sites out of all the sites browsed and the time spent using English sites was significantly greater with boys. The difference can be seen in the percentages as well: 77.8 % of the girls used more Finnish sites than English, one of them using almost none at all (Table 6). However, 42.1 % of the boys visited Finnish sites and English sites as much, and 36.9 % use more English sites than Finnish ones, 15.8% of them using almost no Finnish sites at all. In other words, boys visit English sites significantly more. When it comes to the time spent on English sites, most of the girls (66.7 %) told they spend only some time on English sites, while the most frequent (31.6 %) answer from the boys was that they spend equally much time on English sites as they do on sites written in Finnish or other languages (Table 7). Here the difference is not as great, but it supports the same observation that boys tend to use more English sites and spend more of their time browsing them than girls do. These two observations suggest that boys are more drawn to using English sites than girls are.

Table 6: Crosstab between gender and use of English websites

Use of English sites ^ Gender Crosstabulation

			Gender		Total
			Boy	Girl	
Use of English sites	almost not at all	Count	1	1	2
		% within Gender	5,3%	11,1%	7,1%
	more Finnish than English	Count	3	6	9
		% within Gender	15,8%	66,7%	32,1%
	as much Finnish as English	Count	8	2	10
		% within Gender	42,1%	22,2%	35,7%
	more English	Count	4	0	4
		% within Gender	21,1%	0,0%	14,3%
	I rarely visit other sites than English ones	Count	3	0	3
		% within Gender	15,8%	0,0%	10,7%
Total	Count	19	9	28	
	% within Gender	100,0%	100,0%	100,0%	

Table 7: Crosstab between gender and the use of English sites according to time

Use of English sites according to time * Gender Crosstabulation

			Gender		Total
			Boy	Girl	
Use of English sites according to time	I spend little time on English sites	Count	1	1	2
		% within Gender	5,3%	11,1%	7,1%
	I spend some time on English sites	Count	5	6	11
		% within Gender	26,3%	66,7%	39,3%
	I spend as much time on Finnish sites as I do on English sites	Count	6	1	7
		% within Gender	31,6%	11,1%	25,0%
	I spend more time on English sites than on Finnish sites	Count	5	1	6
		% within Gender	26,3%	11,1%	21,4%
	I spend most of my time online on English sites	Count	2	0	2
		% within Gender	10,5%	0,0%	7,1%
Total	Count	19	9	28	
	% within Gender	100,0%	100,0%	100,0%	

Interestingly enough, there was a significant positive correlation between the score of the vocabulary test and the English grade of the pupil. In other words, the better grade one has in English, the better one is likely to score in this vocabulary test. This may seem self-explanatory, but in fact it brings out valuable findings. First, the pupil's skills in vocabulary realize themselves in their schoolwork and grades. A pupil's vast vocabulary, whether learned in classroom or outside it, is directly beneficial to one's grade. Secondly, it can be interpreted that skills in English vocabulary are taken into account in upper secondary school evaluation. Furthermore, this observation contradicts my working hypothesis that the vocabulary test score and the English grade of the student might not be dependent on one another. On the other hand, it proves that good skills in vocabulary usually mean good skills in other areas of language as well. In other words, the language learning of this study group seems to have developed evenly.

In this study group, there was no difference between boys and girls in how much they used the Internet. Around half of both girls and boys used the Internet for 1-2 hours and half of them 2-3 hours per day. While the recent master's thesis about English skills in relation to playing video games stated that boys play more video games, this study shows that the use of the Internet is not as divided by gender. This provides support for my hypothesis that there are not much gender

differences in the use of the Internet. It suggests that when conducting studies related to Internet users, a researcher has a fairly equal study group without either gender representing a majority.

There was no difference between how boys and girls scored in the vocabulary test, either. In addition, although there was a minor mean difference in favor of girls, there was no difference between the grades of boys and girls. Both these findings seem to contradict the traditional belief that girls are usually better in languages. In fact, in this group, neither gender could be seen as being particularly better or worse in English. Although it would have to be studied on a larger scale to make definite conclusions, according to this data it seems that boys are as good in languages as girls are, against the popular belief. Since an earlier study concluded that boys are surpassing girls in English with the help of video games, there may be reason to believe that the case might be totally opposite to what the popular belief states.

While the use of English sites was clearly positively correlated with the score of the vocabulary test, there was no correlation between the use of the Internet and scores in the vocabulary test (as seen in Table 5, the correlation coefficient was nearly zero). This contradicts my working hypothesis that the use of the Internet in general would greatly assist adopting English vocabulary. It shows that while the Internet often contains English, it might not leave such a great impact on every user. Furthermore, it is nowadays easier to browse only Finnish sites due to localization, so the intake of English can be minimal. However, as the results showed, if one chooses to use more English sites, the effect is visible.

All in all, while boys and girls of this group seem to be equally skilled in the English language, boys were found to visit more English sites and spend more time on English sites than girls. As a result, it may be interpreted that boys and girls are as good in English as girls, but that boys possibly acquire some of their English skills by visiting English websites while girls acquire their skills through some other activities and from different sources. It is risky to generalize the findings based on such a small study group, but it can be assumed that these findings might come up in a larger study as well. It is a very interesting finding, as it supports the same idea as the study which found boys being better in English especially as a result of playing video games. These two studies

together suggest that boys are getting better in English due to their interest in playing English games and visiting English websites.

6 CONCLUSION

While it was not revealed that the use of the Internet altogether helps learning English vocabulary, there were many encouraging findings. One of the most interesting findings in this study was that there seemed to be a correlation between the use of English websites and the score of the vocabulary test, thus suggesting that spending more time on English sites broadens one's vocabulary range. Furthermore, taking into account that while boys and girls had quite similar scores in the vocabulary test and similar grades in English, but that boys spent more time on English websites, it can be interpreted that boys are starting to acquire their English skills outside the classroom with the help of both English websites and video games. As I suspected, the Internet was not heavily used by only one gender but rather the use was very equal. Surprisingly there was no notable gender difference in the scores of the vocabulary test or the most recent English grade, either. This contradicts the traditional belief that girls are better in languages than boys. It may suggest that boys are becoming increasingly interested in languages since they acquire a lot of English while interacting with modern technologies.

The studied group was quite small and chosen on the basis of its availability, thus it is not safe to generalize its results. However, it provides a good groundwork for a larger study. The topic could be investigated further with a larger group, where it is safer to generalize the results. A larger study group could show different results and perhaps provide support for some of my working hypotheses that this study contradicted. As it seems that using English sites is to some extent beneficial to English skills, it could be useful for English teachers to try to utilize it in their teaching. For instance, they could tell their students to find an English website that has something to with their interests, and encourage them to visit such sites more often.

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Appendix 1: Questionnaire about the use of the Internet

Kysely Internetin käytöstä

Sukupuoli

- a) poika
- b) tyttö

Kuinka monta tuntia päivässä käytät Internetiä aktiivisesti (ei esim. tehdessä muita asioita)?

- a) En yhtään
- b) 1-2 tuntia
- c) 2-3 tuntia
- d) enemmän kuin 3 tuntia

Kuinka suuri osa selaamistasi sivuista on englanninkielisiä?

- a) ei lähes yhtään
- b) enemmän suomenkielisiä (tai muun kielisiä) kuin englanninkielisiä
- c) yhtä paljon suomenkielisiä (tai muun kielisiä) ja englanninkielisiä
- d) enemmän englanninkielisiä
- e) käyn harvoin muunkielisillä sivuilla kuin englanninkielisillä

Kuinka paljon käytät englanninkielisiä sivustoja (aikana jolloin käytät Internetiä)?

- a) en vietä juurikaan aikaa englanninkielisillä sivuilla
- b) vietän jonkin verran aikaa englanninkielisillä sivuilla
- c) vietän yhtä paljon aikaa suomenkielisillä ja englanninkielisillä sivuilla
- d) vietän enemmän aikaa englanninkielisillä kuin suomenkielisillä sivuilla
- e) vietän suurimman osan ajastani Internetissä englanninkielisillä sivuilla

Mainitse kolme Internet-sivustoa joita käytät useimmiten, esim. Facebook, Kuvake, Youtube. Merkitse perään millä kielellä kyseistä sivustoa käytät tai millä kielellä se on kirjoitettu, esim. Facebook (suomi), Youtube (englanti), Wikipedia (suomi).

Mikä on viimeisin englannin numerosi?

- a) 5- 6
- b) 7- 8
- c) 9- 10