Degree Thesis 1
Level: Bachelor's

Online and Offline Gaming as Support for English Education in Swedish Upper Elementary Schools with Focus on Reading Comprehension

A literature review about online and offline gaming as a resource for developing English reading comprehension in Swedish schools in year 4-6

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Abstract:

The aim of this degree thesis is to see what research says about the use of computer and video games to support upper elementary pupils’ development in English reading comprehension in Swedish schools. Other goals are to see how online and offline gaming can be integrated in the Swedish schools and what attitudes teachers have towards gaming.

The method used is a systematic literature review and the purpose is to analyze chosen articles and to find relevant content that answers the research questions. Five articles were chosen from different databases and were systematically analyzed in this thesis.

The results show that online gaming as support for education can be rewarding for some upper elementary pupils in English learning. However, in English reading comprehension there is not much research found which means that more research needs to be made within this area. Moreover, involving online gaming in English language learning seems to be a challenge for teachers mostly because of their lack of knowledge about the subject, even though they are positive to gaming. The lack of knowledge about the subject could be altered with more education and courses in the area.

Keywords:
Computer- and videogames, reading comprehension in English, online gaming, integrating gaming in school
# Table of contents

1. Introduction ................................................................................................................................................. 4
   1.1 Aim of thesis ........................................................................................................................................ 5
2. Background .................................................................................................................................................. 5
   2.1 The Swedish Curriculum .................................................................................................................. 5
   2.2 Computer games, videogames and online gaming ........................................................................ 6
   2.3 Formal and informal learning .......................................................................................................... 7
   2.4 Reading comprehension .................................................................................................................. 8
   2.5 Theoretical perspective ................................................................................................................ 8
3. Methodology .................................................................................................................................................. 9
   3.1 Selection criteria/strategies .............................................................................................................. 9
   3.2 Analysis ............................................................................................................................................. 10
   3.3 Ethical aspects ............................................................................................................................... 12
4. Results ......................................................................................................................................................... 12
   4.1 Description of chosen articles. ......................................................................................................... 12
   4.2 Content analysis ............................................................................................................................ 15
5. Discussion/conclusion ............................................................................................................................. 17
   Method discussion ............................................................................................................................... 17
   Result discussion ................................................................................................................................. 17
   Conclusion ............................................................................................................................................ 19
   Future work ............................................................................................................................................. 19
References ...................................................................................................................................................... 21
Appendix 1 Searches .................................................................................................................................... 22
Appendix 2 Content Analysis ..................................................................................................................... 23
1. Introduction

At present computers and televisions are a big part of people’s daily lives, both for children and adults. Computer games are a common way for children to get in contact with the English language. This is because most popular games are in English. In MMORPGs (Massively Multiplayer Online Role-Playing Games) such as World of Warcraft and Star Wars: The Old Republic, the communication with other gamers is just as much a part of the game as the gaming itself (Åkerlund, 2011, p. 32). To be able to communicate with others in such games, it is important to have good reading comprehension, be able to write and understand spoken language. Since gaming is a part of many pupils’ everyday life the question is whether or not online gaming can create chances for pupils to develop their reading comprehension in English. For a long period of time playing games has been seen as both bad for the health of young people and being addictive but there are not many views on whether or not gaming can lead to something good (Åkerlund, 2011, p. 32).

My own personal experiences with online gaming such as World of Warcraft and Star Wars: The Old Republic and also offline games such as The Sims have shown that quite a lot of speaking, writing and reading in English are required to be able to understand the game and to be able to proceed in the game. One also needs to interact with other gamers within the game itself, at least while playing online games. While playing online and offline games you need to be able to rely on your English skills in reading comprehension to proceed in the game, both when communicating with others but also when playing the game itself.

Even though the Swedish curriculum does not state anything about gaming, it does on the other hand state that Swedish pupils should develop their knowledge in English in several areas where they normally would use the language, and one example of that is online and offline games. It also states that the pupils should be given opportunities to develop their knowledge in English in areas that relate the contents to their own diverse interests. Finally, it states that the education should be varied and that they should learn strategies to read different texts (Skolverket 2011a, p. 8, 30, 34). Gaming can be one of these interests and this thesis will examine if online gaming can support pupils’ development in reading comprehension in English in the grades 4-6. It will also be examined what attitudes teachers have towards integration of computer- and videogames in the Swedish school.
A study of this area is important because pupils’ everyday lives and their education in school should be connected (Skolverket 2011a, p. 8). It can also be useful to see if gaming can be of support in enhancing Swedish pupils’ English reading comprehension. Åkerlund (2011, p. 39) points out that the many opportunities for communicating with others through computers and the Internet make it essential that teachers and pupils learn to use the technology.

1.1 Aim of thesis
The aim of this degree thesis is to investigate what research has to say about online and offline gaming as a tool and resource in helping upper elementary Swedish pupils develop their English reading comprehension in addition to teachers’ attitudes towards gaming as a resource. The research questions for this thesis are:

- Can computer- and videogames support pupils’ development in English?
- Can computer- and videogames be integrated in the Swedish school to assist pupils in their learning of English reading comprehension?
- What are teachers’ attitudes towards integrating online and offline games into the English language classroom in Swedish schools?

2. Background
2.1 The Swedish Curriculum
According to the Swedish curriculum (Skolverket, 2011a, p. 8, 34) pupils in grades 4-6 should learn to use strategies for reading English in different types of texts. Further, the education should be varied and connected to their interests. It also states that the education should help pupils develop their knowledge in the English language and be able to use English in different situations and for varied purposes. According to the English syllabus, pupils should be able to read and understand different types of written English.
The core content in the curriculum for grades 4-6 states that the English education should contain topics related to pupils’ everyday lives and interests. The education should also give pupils an opportunity to learn how to understand texts from different categories of the media. The commentary to the syllabus in English (Skolverket, 2011b, p. 10, 31) upholds that different aids, such as computers, give pupils prerequisites to learn, understand and communicate in different media. It also states that:

[b]y students getting practice using different media as aids in language teaching, they gain access to an influx of a living and dynamic language that they can process and assimilate. They then also create a channel in which they can express themselves in a creative way. In this way, students' language develops in an authentic and immediate context (author’s own translation, Skolverket 2011b p. 10).

2.2 Computer games, videogames and online gaming

There are many different types of computer- and videogames, both offline and online. Gee (2007) gives examples of computer games and videogames in which the players can play alone or with others. A few of the examples he gives are games such as X-Men Legends II: Rise of Apocalypse, Halo and World of Warcraft. The game X-men Legends II: Rise of Apocalypse is a videogame in which the player can play with other players through a television and a videogame console, while the game World of Warcraft is an online computer game that the player can access through a computer and the Internet. Gee states that games as World of Warcraft are made for playing with others online (p. 179-181). Some of these examples are MMORPGs (Massively Multiplayer Online Role-Playing Games) which means that they are played online and that the gamers can interact with each other. The research for this thesis will mostly focus on different types of MMORPGs, but also some offline games such as The Sims since offline games can sometimes be of support when developing a language (Åkerlund, 2011, p. 32-34).

Åkerlund (2011) claims that MMORPGs are about communication with other players just as much as about playing the game. He continues to claim that games can motivate pupils to interact with others, since that is a main focus in many of the games. Åkerlund says that “[e]ven if scoring points, fictitious money and competition stress are important ingredients in advanced MMORPGs, the social context and interaction with likeminded players is a dominating driving force” (2011, p. 34, author’s own translation). In MMORPGs there are a
variety of different games, including the most well-known and popular games World of Warcraft and Everquest (Gee, 2007, p. 180) which are played on computers.

It can be difficult for teachers to create challenges within and about games that the pupils can have use for in their everyday life (Åkerlund, 2011, p. 32-34). Games often also get criticized for being a waste of time but Gee (2007, p. 37-39) and Gruber (2011, p. 44) agree that it is because people do not know enough about the game and that the player actually learns a great deal of things from games, such as how to act in a certain environment and how to be in a group with other people. Gruber (2011) says that excessive gaming is of course bad for a person, but otherwise there is nothing dangerous about playing online games (p. 45).

Online gaming has its own literacy, which means that the language that is used while playing might not be the same or mean the same in real life. This requires that pupils understand that the words and signs have different meanings depending on in which culture, time and context they are being used (Gee, 2007, p. 18-19). Therefore communication with other gamers involves not only talking about everyday life but also using terms that are relevant for the game being played. When reading and responding to what other players are writing, it is of importance to be aware of the different literacies to be able to understand. It is also of importance to develop the necessary reading comprehension to be able to communicate with other players, especially if the other gamers have English as their first language.

2.3 Formal and informal learning
Åkerlund (2011) discusses formal and informal learning. Informal learning is learning that does not take place in school under formal and structured conditions. Informal learning can be singled out as taking time from “real” and “genuine” learning for instance the learning that occurs in schools. So, informal learning is learning that happens outside the formal structures of classes at schools. This informal learning can support formal learning in schools (Åkerlund 2011, p. 38). Formal learning takes place in school and in the classroom with a teacher. Examples of informal learning can be things a player can learn through a game as Gee (2007, p. 37-39) claims, for example how to act and talk to others.

Lundberg (2010, p. 23) writes that the popular idea that children learn English themselves through media such as computers, games and video games is, in fact, exaggerated. However, she states that although education in the Swedish schools should not be replaced by movies
and computer games, they should use them as a tool. Computers can be integrated as a part of the education for developing pupils’ English.

Estling Vannestål (2009) insists that there can be advantages with using computers in schools. For example this can give an opportunity to have variation in the classroom and that can lead to better conditions for learning English. The author also states that computers motivate pupils and in turn, motivated pupils can have an easier time learning English. Estling Vannestål is positive to using computers in the classroom because they are source of authentic and current material (p. 17).

2.4 Reading comprehension
Reading comprehension can be defined in different ways. This thesis uses Westlund’s (2012) definition, who claims that reading comprehension is complex and that it requires the reader to use strategies. It also requires skills and knowledge about the subject that the pupil is reading about (Westlund, 2012, p. 69). Westlund uses the term reading literacy as a synonym for reading comprehension. She also points out that the reader and the text interact with each other to create a meaning and an understanding. Therefore the pupils need to be active to learn and understand texts (p. 70).

According to Westlund (2012) there are different factors that could affect pupils’ reading comprehension. These are the pupils’ working memory, vocabulary and the ability to read between the lines. Another factor is the ability to be able to connect new information to old knowledge (p. 72). Westlund also discusses reading in relation to computers and gaming. She claims that in our present time the use of computers is increasing and that demands that we can understand other types of texts (p. 122).

2.5 Theoretical perspective
The sociocultural theory is relevant for this study, because this theory stands for learning through interaction with others (Säljö, 2011). The Russian educator and philosopher Vygotskij can be said to be the founder of the sociocultural theory because it is based on his thoughts and theories on learning. According to the sociocultural theory, learning never occurs in a void, but in a social context such as school or at home with others (Westlund, 2012, p. 20). Westlund (2012) points out that in this theory the language and culture belong
together and the learning happens *interactively*. Pupils do not learn by themselves but in
interaction with others (p. 21). In the sociocultural theory people never stop learning, but
rather learning is something that occurs throughout a person’s whole life. It also states that
pupils learn in all different situations and contexts (Säljö, 2011, p. 191). This means that it is
of great value to let pupils communicate with each other and learn in a social context.

3. Methodology

3.1 Selection criteria/strategies

This systematic literature review involves searching for information about a specific subject
and after that carrying out a critical inspection of the research findings. This inspection
process is then followed by selecting and finally collating the found data in the chosen
research area (Eriksson Barajas, Forsberg & Wengström 2013, p. 31). The purpose of this
literature review is to create a synthesis of existing empirical studies in the area of computer-
and videogames in relation to the Swedish school and pupils’ reading comprehension.

The search for previous research was made in several databases such as LLBA (*Linguistics
and Language Behavior Abstracts*), ERIC (*The Education Resources Information Center*) and
SUMMON, all found on Högskolan Dalarnas online library. These databases were
recommended by a librarian at Högskolan Dalarna. They were also chosen because they gave
a wide range of outcomes after the search words were entered. The searches were limited to
the years between 2005 – 2015 to get relatively new research. Searches were conducted both
in English and Swedish to get a larger outcome, but gave more results in English. In the
searches another limitation was that the results had to be *peer-reviewed* to ensure greater
validity. *Peer-reviewed* articles are generally more valid because experts have read the article
and given comments on it several times.

The criteria for inclusion of research in the thesis allow the inclusion of studies from nearly
all countries because there is not enough available research on related topics done in Swedish
schools. Therefore more countries have been included to get a broader outcome. Another
criterion is that the research regards pupils in grade 4-6 or that the research is not limited to a
certain school level. This changed over time when it was discovered that there was not much
research found with a focus on grades 4-6.
The search words used were first chosen after determining the research questions. When questions were decided several words were written down as search words to see which could be used. Search words chosen were both in Swedish and English. The Swedish words were chosen first and then they were translated to English. Search words were added and replaced by others if searches did not give the relevant outcome. Search words used were gaming, developing, school, reading comprehension, computer games, primary school, videogames, computer assisted language learning. In the Swedish search årskurs 4-6 was added. These search words were chosen because they had a connection to the aim of the thesis and because they gave a relevant outcome of the search. The word developing was chosen as a search word even though it might seem rather broad because the search resulted in articles about pupils developing their English. The word was only used together with other search words to improve the search results. However, the English search words gave a larger outcome than the Swedish.

3.2 Analysis
All titles that were found in the searches were read and after that the first selection was made. Articles were chosen if they were related to the aim. Afterwards the abstract was read to see if the articles were relevant enough to continue to read. If they were not of relevance, the references were looked through to see if they mentioned anything that may have been of interest. After this a selection of the articles, research and doctoral theses was made and they were analyzed to see whether they could be used in this paper.

When searches were made they were written down in a table to keep track of what searches had been completed. This search table can be seen in Appendix 1 and shows in which searches chosen articles were found and what database and search words were used. What cannot be seen in that table are articles found through other articles or through tips from supervisors. After searches had been made (see Appendix 1) there were eleven articles that were selected to be read a bit more thoroughly and after that three articles were not chosen to be a part of this thesis. The remaining eight articles went through a quality control in which ten questions were asked about each article (see Table 1). They were quality controlled to be sure of their quality and their relevance for this study. The only possible answers to the questions were yes or no. Yes gave one point, no gave zero points and the maximum points were ten. Articles with six points or more were included, others were removed. This meant that another three articles were therefore not selected to be in this thesis. The questions used
were about several topics such as method, aim of the study, if the result were connected to the aim and if the result is believable. Inspiration for the questions came from Ericsson Barajas et al (2013, p. 184-192).

Table 1

<table>
<thead>
<tr>
<th>Question</th>
<th>Yes</th>
<th>No</th>
</tr>
</thead>
<tbody>
<tr>
<td>Does the article have a clear aim?</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Are the issue-questions clear?</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Do the result and aim connect? Is it credible?</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Is the method described? Is it sufficient?</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Is it clear when and where the study was made?</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Is the study easy to follow?</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Is the selection group right for the study? Is it enough?</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Does the study contain a result and discussion?</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Does the study have any part with discussions about the study’s limitations, flaws, validity and reliability?</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Have ethical perspectives been mentioned in the study?</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

The remaining five articles are presented in Table 2 below (see page 14) and they are described more under the next heading. Since it was difficult to find articles that were relevant for all parts of the aim some articles only connect to one part of the aim while others are related to other aspects of the aim. All chosen articles have something to do with either online/offline gaming in the English subject or have content about teachers’ thoughts on gaming in the English subject. Articles not chosen generally had participants who were too old or had nothing to do with the English subject but only online gaming.

After articles were chosen in the search and they had gone through a quality analysis they were analyzed for content. This analysis was done with an analysis template (see Appendix 2) comprised of headings chosen from Barajas Eriksson et al. (2013, p. 175-192). The content analysis was done to be able to see patterns, themes and other phenomena in the chosen articles (Eriksson Barajas et al, 2013, p. 147). Patterns that could be shown were if the articles had the same result or if they perhaps disagreed on the same thing. To be able to see patterns
and other aspects a table was used with questions about aim, main findings, strengths and weaknesses. All chosen articles went through this analysis and with the information in the table, patterns, similarities and differences in the details could be identified. The full table with all five articles can be seen in Appendix 2. In addition, the texts were also read with a color-coded-system where one color represented each research question to make it easier to see how the text was relevant for the aim of the thesis.

3.3 Ethical aspects
The ethical aspects were also taken into consideration when the analyses were made and when the results were presented. In the result it was important to not twist what the author was stating and make it into something else. It was also important to not include any personal opinions when analyzing texts and presenting results. Lastly, it is important that all aspects of the research are shown and not just from one point of view. That is because it is of importance that all viewpoints are presented in order to obtain good validity (Eriksson Barajas et al, 2013, p. 70)

4. Results
In this section the results of the analysis of the chosen articles will be presented. First, the results of the search will be presented in form of a table (see Table 2) followed by a brief summary of the articles and secondly, the research questions will be answered in relation to the articles chosen.

4.1 Description of chosen articles.
Table 2 below shows the five chosen articles after the quality and content analysis and after that comes a brief description of the selected articles. The description contains the title, author, aim, a short methodology, results and conclusion of each item.
### Table 2

<table>
<thead>
<tr>
<th>Author</th>
<th>Title</th>
<th>Year of publication</th>
<th>Language</th>
</tr>
</thead>
<tbody>
<tr>
<td>Apperley &amp; Walsh</td>
<td>What digital games and literacy have in common: a heuristic for understanding pupils’ gaming literacy</td>
<td>2012</td>
<td>English</td>
</tr>
<tr>
<td>Ranalli</td>
<td>Learning English with The Sims: exploiting authentic computer simulation games for L2 learning</td>
<td>2008</td>
<td>English</td>
</tr>
<tr>
<td>Sandberg &amp; Karlsudd</td>
<td>Learning by Playing Searching after a Connection between Computer Game Playing and English Skills</td>
<td>2014</td>
<td>English</td>
</tr>
<tr>
<td>Sundqvist &amp; Sylvén</td>
<td>Language-related computer use: Focus on young L2 English learners in Sweden</td>
<td>2014</td>
<td>English</td>
</tr>
<tr>
<td>Sylvén &amp; Sundqvist</td>
<td>Gaming as extramural English L2 learning and L2 proficiency among young learners</td>
<td>2012</td>
<td>English</td>
</tr>
</tbody>
</table>

In Apperley and Walsh (2012) the aim was to give educators the insight into the literacy practices pupils use while playing. Another goal was to show educators the possibilities by working with pupils’ own interests. This study is based on the authors own experiences with high school teachers and their research about students playing digital games. The study was founded by the Australian Research Council. One conclusion is that digital games have a large role to play in schools, mostly in the literacy area. However, it is also difficult for educators to know how to work with gaming and therefore in the future they should be able to, for example, take courses in this area.

In Ranalli’s (2008) text one aim was to see whether pupils see themselves learning English with help of the offline game *The Sims*. Participants in this study were university students in the USA and all of them have another first language than English. These students took pre-tests, post-tests and weekly quizzes over a period of time to see a development in the English language. Students in this study did not agree on whether gaming helped them develop their English and they did not agree on whether gaming could help language learning. For education games can be used for language learning if there is a possibility to be able to adjust the game itself in some way. The author points out that the focus is mostly on offline games and the results may differ when it comes to online gaming.
The main aim in Sandberg and Karlsudd (2014) was to see which computer habits upper elementary pupils have and relate that to their oral and written English. One part of the aim was to see if there were any indicators that playing games had effect on their English. One aim was also to see what thoughts teachers had on computers and games in the English education. Interviews were made with three female teachers between the ages of 35-45. Questionnaires were conducted in three year six classes with 54 pupils, in two upper elementary schools in Sweden. Pupils in this study think that they learn English through computer games and that it is fun learning that way. They wish they could use computers and games more in the English subject. The teachers are a bit anxious to use games in school but can at the same time see benefits with games and interaction with other gamers.

In Sylvén and Sundqvist (2014), one aim was to see what language related activities pupils with Swedish as a first language have outside of school. Another part of the aim was to see what relationship there is between playing digital games and motivation for learning English and self-reported strategies for speaking English. Pupils aged 10-11 in Sweden were the participants and data was collected through a diary about their language use in their spare time and a questionnaire. Pupils in this study generally play more games in English than in Swedish. The authors claim that gaming can be a form of motivation that language learning may need. Gaming needs to be integrated in school activities because pupils need a connection between their spare time and their English education.

In Sylvén and Sundqvist (2012) the aim was to see if there is any positive relation between second language learners and their time playing games to develop their English skills. Participants were pupils in grades 4-6, consisting of 39 boys and 47 girls in four different schools with different teachers. The data was collected from questionnaires that pupils filled in and also a week-long language diary. The data was analyzed quantitatively with the help of specific software. Students increased their English language vocabulary by playing online games, but the question is if those who were playing games before this study already had high scores on tests or if they actually learned more. The authors claim that it seems like gaming can have a positive effect on development in reading and listening comprehension. Teachers can use language diaries with their pupils to see when they use English in order to create benefits of gaming. Schools must involve pupils’ own interests to connect spare time activities with school activities.
4.2 Content analysis
In this section the articles will be analyzed in relation to each of the research questions. Since the thesis contains three research questions the headings start with the first question and then continue with questions two and three.

**Can computer- and videogames support pupils’ development in English?**
The aim of Ranalli (2008) was to see if students saw themselves learning English with the help of offline gaming, in this case *The Sims*. In this study the students were not unified in the question whether gaming helped them develop their English or not. Some of them thought that “[o]n the basis of their experience, they felt simulation games in general have the potential to contribute to language learning” (Ranalli, 2008, p. 452). Ranalli also claims that the students enjoy playing games even though they sometimes lack the knowledge of language that they might need. Sandberg and Karlsudd (2014) had a different result in their study; most pupils consider gaming useful to them in their English development and wish that they could use it more. On the other hand pupils in this study were younger and played online games in a different way from those in Ranalli’s study. Sylvén and Sundqvist (2012) point out that playing online game do help pupils develop their English skills, however mainly in their vocabulary. Even though these articles show that online and offline gaming can be of benefit for the English language learning, they mostly show if pupils think they learn or not when playing computer or videogames.

**Can computer- and videogames be integrated in the Swedish school to assist pupils in their learning of English reading comprehension?**
Since very little research was found regarding English reading comprehension in relation to gaming, it is difficult to make claims about this research question. However, research conducted by Sylvén and Sundqvist (2012) indicated that gaming can have a positive effect on pupils’ English reading comprehension. Sylvén and Sundqvist (2012) could see that pupils that are frequent gamers performed better than pupils who did not play digital games at all. They could see in results from Swedish national tests that pupils that are gamers performed significantly better than non-gamers in both listening and reading comprehension. A discovery Sylvén and Sundqvist made was that frequent gamers with a higher score in reading comprehension read very little in Swedish, but scored well on both reading comprehension in English and Swedish. They think it has to do with the amount of reading frequent gamers do while playing MMORPGs such as *World of Warcraft* (p. 313-316).
What are teachers’ attitudes towards integrating online and offline games into the English language classroom in Swedish schools?

Little research was found in this area, but findings point towards teachers feeling that working with computers and specifically gaming can be a challenge for them for several reasons. Reasons for that are, for example, lack of knowledge in the subjects, lack of time and also a lack of computers to use. Sylvén and Sundqvist (2014) insist that gaming should be integrated in the Swedish school because a connection between pupils’ interests and their activities in school should be made. That is mostly because it makes pupils motivated which can lead to learning.

On the other hand in the study made by Sandberg and Karlsudd (2014) the teachers seemed to be scared to use computers and games in their education, because they feel that they did not have enough knowledge about computers and games. In the study the teachers seem to have a positive attitude towards games but at the same time they do not use games. One teacher said that:

Computer games in themselves can’t be wrong as long as they aren’t violent. People say that games make young people aggressive. But I’ve also heard that you can use games to talk with people all round the world! This is quite fantastic, isn’t it! (Sandberg & Karlsudd, 2014, p. 374)

It is not just teachers’ lack of knowledge about games; it is also time-consuming to learn how to work with the games if there is no knowledge about them in the first place. Teachers in this study can see the benefits of using games, but at the same time they feel unsure about how to use them. Apperley and Walsh (2012) present teachers’ views on gaming and how to use it. They discovered that teachers would like to use games but were not certain about how. They then suggest that there should be courses in this area which could create opportunities for teachers to use games in school or to be able to connect games that are played at home with their formal education. In another study made by Sylvén and Sundqvist (2012), the authors suggest that teachers can use a *language diary*. In that diary pupils can write what they do at home that is connected with different languages, in this case English, from television programs, magazines and online games. When teachers know how and when their pupils use English they can create activities that have to do with those games.
5. Discussion/conclusion

In this section the results and method of the analysis will be discussed, followed by a conclusion and a suggestion for continued research in the area.

Method discussion

In this thesis the levels in which the participants attended were from the start focused on only the grades 4-6. However, when realizing that there was not enough research found about those grades the limitations were changed and even the university students were of interest to get any outcome. If no changes in the focus of grades had been made, the result probably would have been different and even more unreliable since there would be so little research. The limitations of countries were nonexistent because there was so little research found from the start. If there would have been a limitation of countries it might have led to an even smaller outcome of the search.

Result discussion

The aim of this degree thesis was to investigate what earlier studies say about online and offline gaming as a resource in developing young English learners’ English reading comprehension. The first research question was to see if computer- and videogames can support pupils’ development in English. The second question was to see if computer- and videogames can be integrated in the Swedish school to assist pupils in their language learning of English reading comprehension. The last question focused on teachers and their attitudes towards using online and offline games in their English language classroom.

Computer- and videogames can be helpful for pupils when they learn English. After the analysis of the studies it seems that pupils disagree whether gaming can help them learn English. Some of them feel that it helps them develop their English and a minority of them feel that it does not affect them at all. On the other hand, it seems to depend on the age of the pupils and their interests from the start. Ranalli (2008) and Sandberg and Karlsudd (2014) have different results in this area. In Ranalli’s study most students do not think gaming can be helpful, while Sandberg and Karlsudd’s study shows that pupils do think gaming is helpful. With this in mind, it seems like gaming can be helpful and not be helpful depending on which student it is. In Ranalli’s (2008) study the participants only got to play offline games and not online, and the question is whether or not that affects the result. In contrast to Ranalli, Sandberg and Karlsudd obtained more positive results from online games that seem to help
pupils develop their English. Sylvén and Sundqvist (2012) state that gaming in English education is helpful, at least when it involves learning English vocabulary. Also, Westlund (2012) states that vocabulary is a great part in reading comprehension; without a good vocabulary reading texts becomes difficult. So online and offline gaming can lead to a good vocabulary and that leads to developing of pupils reading comprehension. Although not much research was found on the question of reading comprehension, Sylvén and Sundqvist state that gaming can be helpful when developing reading comprehension in English. They claim that it depends on how much the pupils play games whether or not it can be helpful for them. This would mean, the more they play online games, the more they develop their English reading comprehension. To claim this might be incorrect because of opinions that much online and offline gaming might be bad for a person and “a waste of time” (Gee, 2007, Gruber, 2011). According to Vygotskij (Säljö, 2011) who states that people learn in all different contexts and situations, also online and offline gaming should be included in that learning.

The question of integrating computer- and videogames in upper elementary schools and teachers’ responsibility in this area is not all clear. The results of this analysis seem to indicate that teachers think it is difficult to integrate online games in the formal English lessons and that they are a bit nervous about using games in the formal school environment. The problem that occurs for teachers is that they feel insecure about how to use online games and how to integrate them in Swedish schools (Sylvén & Sundqvist, 2014; Sandberg & Karlsudd, 2014). Surprisingly, it seems that teachers in these articles are positive about online and offline gaming in comparison with what Gee (2007) and Gruber (2011) claim which is that lack of knowledge often leads to opinions that gaming is “a waste of time”.

Åkerlund (2011) and Ranalli (2008) agree when they discuss the use of computer- and videogames in the school. Åkerlund thinks it can be difficult to know how to make relevant challenges when using games in English education. Ranalli claims that it would be of interest to have games in which it is possible to make personal changes. In that way it would be even easier to use computer- and videogames in the education. Otherwise a language diary could be beneficial when using games in education (Sylvén & Sundqvist 2012). Using a language diary could lead both to something positive but it could create disadvantages, for example that the development of reading comprehension no longer is in focus. However, the information on what pupils play and when they use the English language could be of benefit. Apperley
and Walsh (2012) suggest that courses for teachers within the gaming area would be valuable, where they might get information about how to work with games in education and how to overcome obstacles. Courses would also be of benefit because teachers seem to be insecure about how to use games in their teaching and that seems to be because of a lack of knowledge in the subject. Teachers need to know how to integrate pupils’ interests in school not only because the curriculum (Skolverket 2011a) states it, but also because pupils learn better when they interact with others (Säljö, 2011, p. 191). According to Vygotskij (Säljö, 2011), learning never occurs alone but only in interaction with others. This could challenge the idea of offline gaming as support when developing language learning due to the lack of interaction with others. Gee (2007, p. 18-19) points out that gaming has its own literacy and that it is of importance for pupils and teachers to understand that to be able to benefit from the games (Gee 2007; Westlund, 2012). It is also important because players will not only use words and expressions that are normal in the formal classroom. If teachers learn this literacy it is easier to create benefits from it.

The results of this degree thesis might have led to different conclusions if some other limitations and decisions during the time had been made. If other search words had been used it might have led to another outcome in the search for articles. That could either have led to a more accurate conclusion or it could have led to no outcome at all. The selection of databases also has an impact on the result of the search and therefore also an impact on the results of this thesis. If other databases had been used the result may well have been different.

**Conclusion**

To summarize this discussion, there was not enough research found and presented within this area to give a good answer to these research questions. However, there is research done about online games in relation to development in English vocabulary, motivation and speaking skills which in some way might apply to reading comprehension. The results also show that it is of benefit to integrate informal learning, such as online and offline gaming in the formal language learning. For teachers this means that it is possible to use online and offline gaming in teaching, but to do that the gaming itself has to be carefully planned and have a meaning.

**Future work**

An implication of this thesis work is that more research in this thesis area may need to be conducted in the area of online gaming and English reading comprehension. It would be
interesting to see how it actually looks in Swedish schools and whether teachers are working with games and if they want to. It would also be interesting to see if it is possible to improve English reading comprehension with assistance from MMORPGs and offline games, to see how gaming may be integrated in the English language learning in the best way. To get knowledge about the thoughts above it would be of interest and necessary to do empirical studies within the area.
References


## Appendix 1 Searches

<table>
<thead>
<tr>
<th>Database</th>
<th>Search words</th>
<th>Limitations</th>
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<th>Abstract read</th>
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## Appendix 2 Content Analysis

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<th>Weakness</th>
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<td>Language-related computer use: Focus on young L2 English learners in Sweden</td>
<td>What for language related activities do Swedish pupils have and is there a relation between games and motivation for learning English and self-reported strategies for speaking English</td>
<td>Pupils play more games in English than in Swedish. Gaming can motivate language learning. Gaming should be integrated in school.</td>
<td>Transparent, right age of participants and made in Sweden. Connects with the aim of the thesis.</td>
<td>Do not focus on reading or reading comprehension.</td>
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<td>Gaming as extramural English L2 learning and L2 proficiency among young learners</td>
<td>If there is any relation between second language learners and playing games to develop their English.</td>
<td>Increased English vocabulary by playing online games. Seems like gaming can have positive effects on development in reading comprehension.</td>
<td>Participants are in the right age, made in Sweden. Mentions reading comprehension.</td>
<td>The result feels a bit unsure.</td>
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<td>What digital games and literacy have in common: a heuristic for understanding pupils’ gaming literacy</td>
<td>To give insight about the literacy practices pupils use when they are playing, show teachers possibilities with working with games (and other interests)</td>
<td>Games have a large role to play in schools in the literacy area, but difficult for teachers to know how to work with games.</td>
<td>The teachers view, recognize UKLA, Feels a bit too unstructured, the aim is not clear until later in the introduction (and not in abstract).</td>
<td>Do not mention reading comprehension.</td>
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<td>Learning English with The Sims: exploiting authentic computer simulation games for L2 learning</td>
<td>Does <em>The Sims</em> lead to vocabulary acquisition? Do players think the game in useful for learning?</td>
<td>For education games can be used for language learning. Another first language than English.</td>
<td>Only 7 participants, nothing about reading, just about vocabulary and only focus are offline games.</td>
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