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ICT and the four major language skills

An interdisciplinary study of teachers' attitudes towards ICT as a
teaching tool

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Title: *ICT and the four language skills – an interdisciplinary study of teachers' attitudes towards ICT as a teaching tool*

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Abstract: The aim of this survey is to provide a descriptive report of upper secondary school teachers' attitudes towards ICT and their actual use of it in class in relation to the teaching of the four major language skills. It illustrates differences between the different language skills in comparison to each other. The primary source for this research is a quantitative survey in the form of a questionnaire, carried out among English teachers at upper secondary school. The result shows that teachers have different opinions about the usability of ICT depending on the different language skills. It also indicates that the teachers' actual use of ICT is different for each language skill. Furthermore, there were no significant correlations found between the respondents' age, gender or work experience as a teacher and their opinions towards ICT. However, the result suggests that the school's ICT policy has an influence on the teachers' use of ICT and their general attitudes towards it.

Keyword: ICT, upper secondary school, English teaching, language skills, teachers' attitudes

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1. Introduction

Mankind has constantly been exposed to all different kinds of change throughout history. And it seems as if every generation has lived under the impression that their epoch in particular has been marked by some sort of change. Our era is no exception. With the emergence of ICT and the internet, we feel that our lives have changed fundamentally. In order to find an example of this, we do not have to go far. We literally have it at hand. Only one generation ago, this essay would have been written with a typewriter and submitted as a hard copy. It would not have been possible to send a draft of this essay to my supervisor in just a split second to get feedback regardless of the actual distance between us. Furthermore, we often use services such as Google or Wikipedia in order to obtain information, instead of going to the library and combing through the volumes of an encyclopedia.

However, at some point, libraries were symbol for a much more widespread access to information. Their success story started with the invention of the printing press by Johannes Gutenberg in the 15th century. This event is often referred to as a one of the most fundamental changes in history. It simplified the copying and thereby the spread of information and thus triggered the spread of learning to the masses, also referred to as the democratization of knowledge. The British historian John Man claims that the invention of the printing press paved the way for the modern knowledge-based society (Man, 2002).

This example shows the intimate link between learning and technology. It illustrates how technological change can have an impact on what we need to learn and how we need to learn it. The educational psychologist Roger Säljö formulated it in a slightly different way when he said that, “when technology changes, the way in which we get in contact with and act in this world changes” (Säljö, 2002:15). Technological innovations have certainly brought changes to English teaching. By means of the internet, both students and teachers have access to a whole new range of authentic language material such as online newspapers, music files, videos, etc. that can be used for reading or listening activities. But ICT can also be integrated in speaking or writing activities. Spell checkers and grammar checkers can be a helpful resource for learners when writing a text. Videoconferencing can be used to bring together students from different countries in order to practice their speaking skills. At the same time, these innovations also affect the teacher's role in class.

These different aspects of the emergence of ICT in schools constitute the core of this study.

1.1 Background

1.1.1 ICT

There seems to be a great variety of definitions of the term information and communication technology. Partly, this might be due to the fact that ICT has developed and changed rapidly in recent years. Only about five years ago, nobody knew or talked about screen tablet computers, such as the iPad. Today, certain schools hand out iPads to all of their students and make them a part of teaching. This indicates how rapidly technology is changing and it illustrates how difficult it can be to provide a detailed definition of the term ICT.

A term that is linked to ICT is Information Technology (IT). According to the Swedish national encyclopedia, Nationalencyklopedin (NE), IT is a general term that refers to the technical possibilities that were achieved through progress within computer technology and telecommunication. ICT is the English name for the same phenomenon. However, this term emphasizes the importance of communication technology a little more than does the term IT. Generally, according to NE, the terms IT and ICT refer to computer technology that enables the collection, storage and handling of information in the form of digital data such as text, speech, sound, images and films (Nationalencyklopedin, 2013).

In summary we might say that ICT or IT are very broad terms the definition of which can shift with the context it is used in.

1.1.2 ICT and education

Computers were first used in education at universities in the 1960s. However, it was not until the emergence of personal computers that this new technology was used by a greater audience. In the 1980s, the term CALL (Computer assisted Language Learning) was coined. CALL soon stood for the great variety of opportunities, mostly within communication, that computers can offer to language learners (DGEC, 2009:5). However, the evolution of the use of computers in language learning differed in the different parts of the world and in different countries.

As far as Sweden is concerned, Gunilla Jedeskog divides the evolution of ICT in Swedish schools into four “waves” (Jedeskog, 2005). The first wave was launched between 1984 and 1987 by the Swedish government. It was called *Datorer Vetenskap Utbildning* (translation by the author “Computers Science Education”). In another effort to further establish ICT in schools (1988-1991), the Swedish government brought the initiative *Datorer som pedagogiskt verktyg*

(“Computers as pedagogical tool”) into being. The next step was coined by the Swedish government in collaboration with the 'Stiftelsen för kunskaps- och kompetensutveckling', a national foundation that works with the development of new knowledge and expertise to stimulate economic growth and stability (1996-1999). Between 1999 and 2002, the Swedish government introduced the ItiS program, which stands for *Informationsteknologi i Skolan* (“Information technology in school”) (Jedeskog, 2005). In more recent years, other programs were launched, such as the en-till-en program (“one-to-one program”), which signifies the idea that every Swedish student should have access to his or her own personal computer.

Also the Swedish syllabus for the upper secondary school states the importance of familiarizing students with the possibilities that the new technologies have to offer. As one of school's tasks, it states that “students should also be able to orient themselves in a complex reality with its enormous flow of information and a rapidly changing world” (Skolverket, 2011:5). Although the phrasing often remains vague and talks about knowledge, the acquisition of skills to prepare the students for being active participants in working life and society, the syllabus clearly points out that the school's task is to make sure that students “can use books library resources and modern technology as a tool in the search for knowledge, communication, creativity and learning.” (Skolverket, 2011:9)

Summing up, we have seen that there is a great variety of different programs to encourage the use of ICT in classrooms. The goal of the en-till-en program is to provide every student with a personal computer. This development, however, also poses challenges to teaching.

1.2 Aim and scope

The aim of this survey is to analyze how teachers use and evaluate the role of ICT in class. More precisely, we will focus on the usability of ICT regarding the four major language skills, namely the two receptive skill reading and listening and the two productive skills, namely writing and speaking. The issue will be looked at from three different angles.

These questions will be dealt with:

- 1) Are there any differences between the teachers' general opinion on ICT and their actual use of it in class in relation to the different language skills?
- 2) Are there any differences between the different language skills concerning the impact of ICT on the learner / teacher relationship?

3) Do the factors gender, age, work experience and the students' access to ICT have an impact on the teachers' attitude towards ICT?

The scope of this study has been limited by the amount of time that was given in order to execute it. Furthermore, it focuses on a particular group of teachers, namely English teachers at upper secondary school, which complicated the search for potential respondents. However, 15 seems to be a sufficient number of answers in order to draw reliable conclusions from this survey.

1.3 Method and Material

1.3.1 Methodology

This is a descriptive survey of teachers' attitudes towards ICT as a teaching tool. The teachers' personal thoughts and evaluations are in the center of this survey. Therefore, this paper does not have the ambition to provide some sort of objective truth about the use of ICT in the acquisition process of the four different language skills.

A quantitative approach in the form of a questionnaire has been chosen in order to simplify the comparison between the respondents' different answers. Furthermore, the respondents were only given a limited option of answers. Again, this procedure simplifies the comparison, but as the authors of the methodology handbook *Metodpraktikan* indicate, such an approach can be complicated. The list of pre-formulated answers might not include the respondent's preferred option (Esaiasson et al., 2010:154). Also, the use of attributes such as 'good' or 'rather good' can be problematic. These attributes do not have a clearly defined connotation. The definition of the attribute 'good' might differ between the respondents (Dörnyei, 2004:54). Particularly concerning the teachers' actual use of ICT in class, more concrete response options might have led to a more precise result. With regard to the teachers' feelings towards ICT however, the use of somewhat ambiguous attributes seems unavoidable.

1.3.2 Selection

For this survey I have contacted two schools in a small city with roughly 50,000 inhabitants, on the Swedish west coast. Both of these schools are upper secondary schools. One school has around 2,000 students. However, this school is divided into several smaller units that have very little to do with each other. The other school has around 400 students. I was given permission to

send an email to all of the English teachers at these schools and asked if they would be willing to fill in a questionnaire about ICT and the different language skills. I received eight positive answers. When I went to the schools to give these teachers a questionnaire to fill in, I spontaneously asked other teachers to fill in the questionnaire as well. In total, I received 15 answers.

1.3.3 The questionnaire

The questionnaire consists of ten questions. The first four questions are general questions about the respondent's gender, age, work experience as a teacher and preconditions concerning ICT in class. In order to simplify comparisons, the respondent was asked not to indicate his or her exact age and work experience, but to choose from three possibilities. These questions ask for a specific numeric value. Although values such as age or work experience are not by definition limited to a certain range of response possibilities, as is gender, and therefore might seem to be open-ended questions, they are in fact rather closed-ended and can therefore be labeled as 'numeric items' (Dörnyei, 2003:46). By only giving three response options, of which only one is clearly defined, these questions can be regarded as closed questions. After carrying out the inquiry, I realized that a respondent with work experience of exactly five years, might not know whether to indicate work experience of zero to five years, or five to ten years. However, there were no complications because of this during the realization of the questionnaire. The fourth question aims to clarify the teacher's situation in class. It provides some relevant information, since the access to ICT might influence the teachers' use of it and their views on it.

While the first four questions are about simple facts, the respondents are then asked to evaluate different aspects about ICT and teaching. In order to simplify comparisons, the respondent is given four response options. Although the phrasing can be different, the general idea was to ask the respondent to rank his evaluation on a scale from one to four. The fifth question concerns the respondent's general use of ICT during English classes. The sixth and seventh question ask the teachers to specify their use of ICT in class and their general opinion about it in relation to the four language skills. Even these questions are closed questions since the respondent is only given four response options to choose from. The eighth question requests teachers to give examples of their use of ICT in class. This question can be considered as a specific open question. In contrast to open-ended questions, specific open questions ask about

concrete pieces of information and can be usually answered in one sentence (Dörnyei, 2003:48). The last two questions deal with the shift of paradigm in learner / teacher roles and the teachers' experience of it both in general and in relation to the four language skills. Again, these questions are closed-ended.

This questionnaire consists of mainly closed-ended questions and one specific open question. The advantage of closed-ended questions is that they provide clear and easily comparable results. Open-ended questions or essay-questions are a lot more difficult to decode and compare in a reliable manner and are therefore less appropriate for questionnaires (Dörnyei, 2004:46). Also, they might take up a lot of time and thereby limit the number of questions covered in the questionnaire (Dörnyei, 2004:46). Furthermore, open-ended questions might discourage the respondent to fill in the questionnaire.

1.3.4 Anonymity

Although there are no sensitive questions asked in this questionnaire, it is completely anonymous and of course voluntary. The risk of anonymity is that the survey might seem less reliable. An advantage, however, is that the respondents might feel more at ease to express their opinions (Esaiasson et al., 2010:285). Another reason to keep a survey anonymous is that people might feel more comfortable filling in a questionnaire if they are not asked to unveil their identity.

1.3.5 Validity and reliability

Validity deals with the question of whether or not the chosen method is appropriate in relation to the aim of the survey (Esaiasson et al. 2004:61). The aim of this survey was to provide a descriptive display of the English teachers attitude towards ICT as a tool in class and their actual use of it. A standardized questionnaire with a restricted number of response options simplifies comparisons between the different answers and thus provides a clearly arranged picture of the respondents answers. In comparison to qualitative forms of research, such as in-depth interviews, questionnaires reduce the researcher's influence on the outcome of the survey.

A high reliability means that the risk of accidental errors is as low as possible (Esaiasson et al., 2010:67). Although there have been some general problems concerning the design and the carrying out of this questionnaire, these have been similar for all of the respondents.

1.4 Plan of study

The background, the aim and the scope and also the method and the material used for this study have been presented in the first chapter. The second chapter will discuss previous research relevant for this study such as the presence of ICT in schools, ICT and language learning and the impact of ICT on the teacher / learner roles in class. In the third chapter the result of this study will be presented and discussed. Chapter four will discuss the pedagogical implication of this study. The conclusion is found in chapter five. The appendix, the index of tables and the references used in this essay are to be found at the end of this paper.

2. Previous research

2.1 The presence of ICT in schools

There is no shortage of research about the presence of ICT in classrooms. The report *Skolans datorer* outlines the access of students and teachers to computers (Skolverket, 2001). *It-användning och it-kompetens i skolan* is a more recent study that looks at the use of ICT in relation to the different school subjects. It provides quantitative data about the use of ICT in the different class rooms (Skolverket, 2013). Its results show, that ICT plays a comparatively smaller role in English teaching compared to most other subjects. Only natural scientific subjects rank lower than English.

Other reports investigate the success of different political initiatives to promote the use of ICT in schools. In 2000 Skolverket published a report about the role of ICT in education called *IT i skolan mellan vision och praktik*. In this report, the authors discuss in what way ICT has influenced teaching in recent years and to what extent the impact of ICT on education can be regulated by politics (Riis, 2000). It also provides a historical overview of the development of ICT and teaching and political initiatives over the last decades.

2.2 ICT and language learning

Maria Estling Vannestål, senior lecturer in English at Linnaeus University, distinguishes between three different ways to use ICT in language learning (Vannestål, 2009). Firstly, ICT can be used as a machine. For example, the students could be asked to complete a vocabulary test, where they are given four answer options of which only one is correct. A points-based system might be used to motivate the students. Furthermore, difficult vocabulary can be stored and reworked.

Secondly, ICT can be utilized as a tool. This usage is most appropriate for creative assignments such as writing an essay. For such tasks, the learner can use a variety of digital tools, such as spell checkers or online search engines. Thirdly, ICT can be used as platform for communication. New technologies provide many opportunities for learners all over the world to get in touch and to practice their English (Vannestål, 2009). In their book *Modern Foreign Languages*, Jane Jones and Simon Coffey also describe how ICT can be used in different ways. However, their approach is less scientific and their aim is to provide more concrete examples for teachers of how ICT can be used in different activities (Jones & Coffey, 2006:120-136).

Concerning the different language skills, Tricia Hedge's book *Teaching and Learning in the Language Classroom* has been very useful. Although Hedge does not look at the different language skills in relation to ICT, her description of the nature of the different language skills has been of great use. When we look at the language skills in relation to ICT, many studies focus on only one of them. R.D. Baker, for example, compares the reading performance of two groups of university students. Both groups were given the same text, however one group received the text printed on paper, while the other group was asked to work with the text in a digital format. The result showed that there were no significant differences between the groups' reading performances.

2.3 ICT and the teacher's role in class

In their book *Lärare av imorgon*, Ingrid Carlgren and Ference Marton discuss whether or not ICT and computers could eventually supersede the role of teachers in the learning process. They come to the conclusion that such a development seems highly improbable (Carlgren & Marton, 2005:15). However, it seems as if the emergence of ICT does not leave the teacher's role unaffected. In a very interesting report by the Directorate General of Education and Culture (DGEC, 2009), called *The Impact of New Information Technologies and Internet on the Teaching of Foreign Languages and on the Role of Teachers of a Foreign Language*, the authors come to the conclusion that recent technological innovations, have led to a shift of paradigm in teacher / learner roles with regard to pedagogy. Their attitude towards ICT, however, is very positive and the authors see a large number of opportunities regarding ICT in language teaching. Furthermore, the report states that particularly language teachers can benefit from the use of ICT and are more open to it than teachers of other subjects:

“Research indicated that European teachers seem to be overwhelmingly open to technology change with an enormous reservoir of potential Internet users amongst EU teachers. Although there are few specific statistics for language teachers, what information is available indicates that language teachers are the most open the use of the new media.” (DGEC, 2009:5)

Generally there seems to be a consensus that ICT already plays an important role in education and that its status will probably increase in the near future. The main issue concerning the role of ICT in education is at what pace it should be integrated as a tool in learning.

3. Results and Discussion

In this section the outcome of the questionnaire will be presented and discussed. In order to make the text more understandable and easier to follow, the chapter has been divided into several subsections. The order of these subsections roughly follows the structure of the questionnaire.

3.1 General remarks on the outcome

Table1: Respondents' gender

Male respondents	8
Female respondents	7

Source: Survey carried out in May 2013

Table2: Respondents' age

> - 35 years old	35-50years old	50-< years old
2	9	4

Source: Survey carried out in May 2013

Table3: Respondents' work experience

0-5 years	5-15 years	15-< years
3	5	7

Source: Survey carried out in May 2013

Table4: Students' access to computers

All students have their own computers	6
Students share limited number of computers	-
Computers are only accessible in a special computer room	9
Student have no access to computers at all	-

Source: Survey carried out in May 2013

As far as the teachers' age is concerned, almost two thirds of the respondents (9 out of 15) were in the age range between 35 and 50 years. Four respondents were 50 years old or older, while the remaining two were under 35 years old. With regard to the teacher's age in relation to their gender we can state that female respondents were slightly older on average than the male respondents. Three out of the four respondents that were 50 or older, were female and the remaining four female respondents were in the age span between 35 and 50.

When we look at the teachers' work experience, the result is quite similar. The female respondents had on average longer work experience than the male respondents. Four of the female respondents had work experience of 15 years or more and the remaining three had worked for at least five years. As far as the male respondents are concerned the number of years that they had worked as teachers was evenly spread. Three of the respondents had worked for five years or less, two had worked for between five and 15 years and three male respondents had work experience of fifteen years or more.

In summary we can state that there was an even distribution between male and female respondents. Although this is certainly an interesting aspect in this survey, we have to be careful not to draw hasty conclusions when looking at differences between male and female respondents. As we have seen there were significant differences in age and work experience between the male and the female respondents. Therefore, we have to keep in mind that differences between male and female respondents could be due to their age or their work experience rather than their gender.

3.2 General use of and access to ICT

When looking at the general access that the students have to computers / internet during class, only two of the four possible answer options were chosen. The teachers' students had either their

own computers with them in class or there was a particular computer room in this school. The bare result of the survey shows that the students of nine of the fifteen teachers only had access to computers in special computer rooms. The students of the remaining six teachers had their own personal computers with them in class. This of course depends mainly on the school's policy concerning computers. One of the schools had implemented the so-called “en-till-en” project, which is based on the idea that the students should all have their own computers that they can even take home. The other school had not implemented this project and students did not have access to computers except in computer rooms. In order to maintain the respondents' anonymity, they were not asked to indicate any further details about the schools they work at. Therefore, we can not be sure that the teachers that indicated that their students had their own computers are those who worked at the school that has implemented the en-till-en project. However, it seems very likely.

When we look at the extent to which the teachers work with ICT in class, the vast majority of the teachers either indicated “quite a lot” or “not so much”. Only one teacher noted that he worked “very much” with ICT in class and another teacher marked that he worked “very little” with ICT. The teacher that works a lot with ICT is male, between 35 and 50 year old, has worked as a teacher for about five to ten years and works with students who all have access to a personal computer in class. The teacher that works very little with ICT is also male and younger than 35 and has work experience of less than five years. He works with students that do not have access to computers/internet during class. Between the remaining thirteen teachers there is almost an even balance between teachers that work “quite a lot” and those who work “not so much” with ICT. Four of the female respondents work quite a lot, the other three not so much with ICT. As far as the male respondents are concerned, besides the two male respondents that chose one of the more extreme options, three of the respondents work quite a lot with ICT, while the remaining three male teachers do not use it very much. However, it seems as if the students' access to computers in class is the most important factor. All of the teachers whose students have access to computers during class use ICT quite a lot or even very much. Only two of the teachers working with students who only have access to computers outside class use ICT quite a lot and the remaining teachers not so much or not at all.

As we have seen, the teachers all work in classrooms where either every student has a personal computer or where there is only a special computer room. The study does not show that the teacher's age, gender or work experience has an impact on his or her appreciation of ICT in class. It seems that the school's policy on computers is more decisive in this matter. Although one might argue that teachers look for jobs at schools that reflect their personal opinion about ICT, it is likely that this factor is only minor compared to other factors such as salary and geographical position of the school.

3.3 ICT and the four major language skills

In this section we will take a look at the teachers' different use of and views on ICT in relation to the four major language skills, namely reading, writing, speaking and listening. In order to make this analysis easier to read, the different language skills will first be discussed separately before a comprehensive analysis at the end of this chapter. The results for the sixth and seventh question were as follows:

Table5: Teachers' views on the general usability of ICT for each language skill.

	Very good	Rather good	Not so good	Not at all
Reading	-	6	6	3
Listening	4	9	2	-
Speaking	-	4	7	4
Writing	10	5	-	-

Source: Survey carried out in May 2013

Table6: The teachers' actual use of ICT in class in relation to the language skills.

	Very much	Rather a lot	Not so much	Not at all
Reading	-	6	7	2
Listening	5	10	-	-
Speaking	-	2	5	8
Writing	6	6	3	-

Source: Survey carried out in May 2013

3.3.1 Reading

It seems obvious that the emergence of ICT has had a very significant impact on our reading habits in everyday life. When we take the train or the bus, we rarely see anybody with a real book or newspaper in his or her hand. Instead, people hold their noses over tablets, e-books and of course also computers and smart phones.

However, as we can see in table 5, teachers do not necessarily value ICT as a decent tool to work with their students on their reading skills. Roughly one third of the teachers consider ICT only moderately appropriate as a pedagogical tool and three of the teachers do not think that ICT is suited for reading exercises in class at all. The remaining six teachers perceive ICT as rather useful and none judges the usefulness of ICT as “very good”. When we look at how teachers actually use ICT for training reading skills in class, the outcome is almost identical. Nine teachers use ICT for reading exercises only rarely (7 respondents) or not at all (2 respondents). Roughly a third of the respondents uses ICT quite a lot in class for the purpose of training the students' reading skills.

This result seems a little surprising considering the way our reading habits have changed in recent years. Although we are reading more and more texts on displays rather than paper, the majority of the educators do not seem to be convinced that it is suited for school. Only one third of the respondents think that ICT is an appropriate tool in order to work on the students' reading skills and the same number of respondents actually use it rather a lot in class. When asked to give examples of how they used ICT for the purpose of training reading skills, most of the teachers mentioned the reading of online texts. Four teachers indicated that they used textbooks which were also available online. By means of a beamer, they then project exercises or texts from the book on the white board, while every student also works individually with the same text on their computers.

The result indicates that the teachers' are not very enthusiastic about ICT as a tool for reading activities. One reason for this rather striking outcome might be the different features of paper reading and display reading. One of the most popular arguments is that paper reading is less tiring and therefore more appropriate for reading long or difficult texts. In a study about the readability of text on paper, e-book and screens, carried out on a group of school students, the result showed that there are no measurable differences concerning the participants' reading and

comprehension performances (Baker, 2010). However, it showed that the participants' personal impression about their performances did differ and that the majority had the impression that they had performed better when reading a text on paper (Baker, 2010). The importance of the personal opinion about ICT is also reflected in this survey. All of the respondents who considered ICT rather useful for reading purposes used it more in class than the other teachers. Other factors such as the respondent's gender or age did not seem to play a major role. Baker's assumption proposes that the teachers' reluctance towards ICT in this survey, is not necessarily caused by the students' poorer performance, but maybe rather by the teachers' opinion on ICT. Another factor that could explain the teachers' reluctance, which is not included in Baker's survey is that students, who are asked to read a text on the internet, will be tempted to use the computer not only for that purpose, but also to surf the internet, check their emails, etc.

3.3.2 Listening

When we look at listening activities, we can see that the teachers' attitude towards ICT is more favorable compared to their view on ICT as a tool for reading activities. All of the teachers, except for one, think that ICT is rather well (9 respondents) or very well (4 respondents) suited for listening activities in class. When it comes to the actual use of ICT for listening activities, all of the teachers utilized ICT rather a lot (10 respondents) or even very much (4 respondents). When asked to give examples of how they used ICT in this context, most of the teachers indicated that they used different types of digital material of spoken text by native speakers such as films and music files. Those teachers who work with a textbook available online mentioned that the online version also provided the possibility to have the text read out aloud by a native speaker. As for reading activities, it seems that the students' access to computers is the most important factor for the teacher's likeliness to use ICT. The survey did not show that the teacher's gender, age or work experience has a significant influence on this.

As we have seen, ICT is considered a useful tool in the context of listening activities. As the teachers' examples of activities show, the most important feature is the authenticity of the material. Teachers seemingly like to fall back on teaching material recorded by a native speaker. This possibility is particularly useful considering the demand of the Swedish syllabus to familiarize the students with all different accents, cultures and traditions of the English language (Skolverket, 2011:54). Furthermore, using ICT for listening exercises might be an appropriate

way for teachers, since Swedish students are already used to listening to music with English lyrics or watching films in English language because of the Swedish habit to subtitle films instead of synchronizing them. To expose students to authentic language material is of course very important. Although the teacher might speak English fluently and be familiar with plenty of proverbs and dialects, it seems impossible for one person to master all the different shades of the English language. Tricia Hedge discusses the importance of stress, as well as lexical and semantic features of different dialects of the English language and their importance for language acquisition (Hedge, 2000:231). ICT provides a great variety of resources for teachers in this matter. Hedge also highlights the importance listening activities referring to a study that shows that of the time an individual is engaged in communication, roughly 45% is dedicated to listening compared to the other language skills (Hedge, 2000: 228). Another characteristic of recorded listening material however, is the lack of non-verbal features. Although we can observe non-verbal features such as facial gestures in films and although we can stop or rewind recordings of spoken language, there is no way to actively interact with the speaker.

3.3.3 Speaking

The survey showed that ICT was least suitable for speaking activities compared to the other language skills. Only four of the teachers considered ICT a suitable tool in this matter. Seven of the teachers regarded it as less suitable and four teachers were of the opinion that ICT is not appropriate at all for speaking exercises. When looking at the teachers' actual use of ICT for this language skill, only two teachers indicated that they used ICT rather a lot, five teachers utilized it not so often and slightly more than half of the teachers (8 respondents) did not use it at all. Teachers also gave comparatively fewer examples of how they used ICT for speaking activities. Certain teachers marked that they used ICT mostly to record students when they spoke so that they could listen to themselves to discover pronunciation difficulties or “Swenglish” expressions. Other teachers mentioned the use of pictures or presentations in order to inspire the students. A couple of teachers did not fill in any examples at all.

The result shows that teachers do not consider ICT an appropriate tool for speaking activities. It also shows that their general views on ICT for this language skill is better than their actual use of it. In contrast to the two receptive language skills we have looked at so far, speaking is a productive language skill (Hedge, 2000:44) that demands the learner to actively

produce language. For that, the learner uses the mouth (the lips, the tongue, etc.), which can, of course, not be replaced by any technological devices. Nonetheless, ICT can be used in order to stimulate and inspire the learner to speak actively, as the teachers' examples of speaking activities show. By recording the students when they speak, ICT can be of use to improve the students' speaking performance. However, one could argue that this would be more of a listening activity rather than a speaking activity. This also leads us to the interactive and social aspect of speaking. Hedge stresses the importance of this aspect, highlighting the lively nature of spoken communication (Hedge, 2000:275). Unless we are giving a speech, we do not only have to be active in spoken communication, but also reactive. We have to respond to what the other person is saying. ICT tools often do not have the capacity to spontaneously adjust. If we think of voice-operated computers as for example in certain cars, many of us will find it difficult to operate the computer, unless we are accustomed to the computer's often very limited range of vocal signals. Used in this way, ICT does not seem very useful for speaking activities. However, if we think of ICT as an arena (Vannestål, 2009), it offers a vast range of opportunities. For example, videoconferencing can be used in order to bring together learners from all over the world to practice their speaking skills.

3.3.4 Writing

Concerning writing, ICT is a very valuable tool according to the teachers. Two thirds of the respondents said that they considered it to be a very useful tool and the remaining third as rather useful. The teachers' actual use of ICT in class is lower compared to their general views on it. Six teachers use it a lot in class and another six teachers responded that they use ICT rather a lot for writing purposes. Only three teachers did not use it very much. As examples for activities, the majority of the respondents mentioned the writing of texts, such as essays or stories, on computers.

The widely spread use of ICT for writing purposes is surprising, considering the fact that only six of the teachers worked with students who always have access to computers. The relatively higher opinion on ICT in this context, compared to the teachers' actual use, suggests that teachers in principle would like to use ICT more extensively. Like speaking, writing is considered as a productive skill, that is to say that the student is asked to produce language. However the

outcome is very different. This depends on the “tools” we use to produce this language skill. As mentioned, the tool we use for speaking is our mouth, which can hardly be replaced by any technological device. In contrast, the tools necessary to produce written language can be replaced by technological devices. Although we might consider a pen and paper as the conventional tools for writing, the use of different types of computers has increased dramatically in recent years. Despite the fact that computer typing is arguably faster and tidier than writing with a pen, computers also offer a wide range of language tools that help the writer. Some examples of these kinds of tools are spell checkers, grammar checkers or thesauri. Thesauri are programs that provide synonyms to make it easier for the writer to vary the vocabulary and hence make the text more appealing (European Commission, 1996).

However, the use of such programs can be problematic. Most spell checkers and grammar checkers were designed for native speakers. Therefore, they might not be able to detect certain errors. For example, if the student writes “their” instead of “they're” most spell checkers will not mark it as a mistake, since the word itself is spelled correctly (European Commission, 1996) and the mistake can only be realized by looking at the word in the context of the sentence.

Nonetheless, these interactive functions that computers can provide compared to conventional writing tools, such as a pen and paper or a typewriter, are a great resource for both the teacher and the students. They provide clear and fast corrections and thus enable the learner to work at his or her own pace, which leads us to the next aspect of this survey, the individualization of language acquisition.

3.3.5 Changing teacher role

As we have discussed earlier, certain scholars claim that the emergence of ICT in schools has led to a shift of the teacher / learner role (DGEC, 2009). The teachers in this survey were asked to what extent they generally agreed with this statement in general and also to what extent they agree with this statement in relation to the different language skills.

Table 7: To what extent do teachers agree to the statement that ICT changes teacher / learner role.

Large extent	Rather large extent	Some extent	Not at all
8	4	3	-

Source: Survey carried out in May 2013

Table 8: To what extent do teachers agree to the statement that ICT changes teachers' role in relation to each language skill.

	Large extent	Rather large extent	Some extent	Not at all
Reading	5	7	3	-
Listening	9	4	1	-
Speaking	-	5	9	1
Writing	12	3	-	-

Source: Survey carried out in May 2013

When asked about their general opinion on a shift of paradigm in the teacher / learner role, roughly half of the teachers fully agree with this statement (8 respondents). The remaining teachers either agree to a rather large extent (4 respondents) or at least to some extent (3 respondents). None of the teachers felt that the emergence of ICT had not had any effect at all on the teacher's role.

Table 4 shows that the teachers evaluate the influence of ICT on their teaching role differently in relation to the different language skills. According to the result, ICT has a greater impact on the teacher's role in the context of listening and writing skills, compared to reading and speaking. Particularly regarding writing skills, a vast majority of the teachers feels that their role has changed due to ICT. And although the result for reading skills is not as distinct as those for listening and reading, we can still see that a vast majority of the teachers feels that their role has changed very much or rather a lot (12 respondents). The only skill that does not correspond to the pattern is speaking, but as mentioned earlier this could rely be due to the fact that ICT is more difficult to integrate in the teaching of this skill.

3.3.6 The impact of gender, age, work experience and access to ICT

The design and the rather limited dimension of this survey have made it difficult to draw reliable conclusions about the impact of gender, age and work experience. Although differences can be observed, the complex composition of these different factors and the rather limited number of participants complicate the analysis of the outcome in relation to these factors. There are no reliable results that could prove the popular assumption that older teachers are more reluctant towards ICT than younger teachers, nor is there information enough to prove the opposite. And even though there is an almost even number of male and female respondents, their differences in

age and work experience are so significant that it seems impossible to judge whether it is their gender, their age or their work experience that caused the differences in their answers.

One factor, however, that does seem to have an impact on teacher's views on ICT is the students' access to computers in class. Those teachers who worked with students who had their own computers with them in class, had a more positive attitude towards ICT. They were all among the half of the respondents that were more positive towards ICT both in their general opinion and in their actual use of ICT in class. Furthermore, they agreed to a larger extent to the statement about the teacher's changing role in class than the average both in general and concerning the different language skills.

4. Pedagogical implications

ICT has entered Swedish class rooms and it has come to stay. More and more schools have adopted the en-till-en program and the number of students that have access to computers and the internet in class has increased constantly over the years (Jedeskog, 2005). Also the Swedish syllabus for upper secondary schools demands schools and thereby also the teachers, to integrate ICT as a part of their teaching.

However, top-down initiatives are only one part of the solution. Many teachers feel uncomfortable using ICT in class, because they think that they are familiar enough with all the different features that ICT has to offer to use them effectively (Riis, 1999:20). Teachers are also reluctant to use ICT, because they are afraid to lose some of their authority due to the fact that students are more skillful with regard to ICT than they are (Riis, 1999:22). Therefore, an effective strategy has to include continual further education programs for teachers in order to help them to use ICT effectively for their teaching. Furthermore, malfunctioning software programs, internet breakdowns and similar issues can lead to the loss of precious of teaching time.

Summing up, it seems fair to say that ICT can be a very useful part of teaching and that it will continue to play an important role in education. However, there is a need for a continual debate about an effective use of it in schools. In order to make this debate as productive as possible, all of the different parties need to be involved. Headmasters, teachers, politicians and scientists need to cooperate in order to guarantee that ICT is used successfully in schools.

5. Summary and Conclusion

We have looked at the teachers' views on ICT and their use of it in class both in a holistic way and at the different language skills separately. In the process, we have seen that ICT for the majority of the teachers was a part of their teaching in one way or another. We have also looked at the teachers' opinion on ICT and their use of it in relation to the different language skills.

If we look at the different results in a comparative manner, we can see certain patterns. When we make the distinction between the passive language skills (reading and listening) on the one hand and the active language skills (speaking and writing) on the other hand, it seems that the teachers' general views on ICT and their use of it in class are more in balance concerning the passive language skills. Concerning the active language skills, the teachers' general views on ICT as a pedagogical tool are more optimistic compared to their actual use of it in class. One possible conclusion from this is that teachers feel more at ease using ICT to the extent they like, when the learner is passive. When reading or listening, the student is asked to take in a certain form of information and not to produce anything him- or herself. This also puts the teacher in charge, which might be a reason why he or she is more comfortable using ICT. When the learner is expected to be active and write or say something, the teacher's part is a little bit more passive.

Another pattern that can be clearly observed is that teachers seem more positive both in their general views and their use of ICT in class when it comes to listening and writing skills. We have already discussed why ICT might be more difficult to use for speaking activities and we have also talked about the role of reading on paper compared to display reading to explain why teachers seem skeptical about the use of ICT for reading activities. However, this result still remains astonishing, especially with regard to speaking activities. In our everyday lives we use ICT daily mostly in the form of computers and smart phones to chat, talk on programs such as Skype. In view of this vast variety of possibilities, it is surprising that the views on ICT and its use in class is not more positively regarded in schools. If we look at the opportunities that ICT provides to communicate regardless of the distance between the dialog partners, I see great potential for the use of ICT for speaking activities.

Concerning the shift in the teacher's role, teachers seem to be aware of this development and agree to a great extent with this estimation. Especially concerning listening and writing, the teachers agree with the statement that ICT has changed the teacher's role from being a source of

knowledge to being a guide for the student as the access to information becomes easier every day. Again, speaking sticks out as the language skill that is least affected by this process. Listening and especially writing are language skills for which ICT seems suited, which puts the teacher more in the role of a guide.

In this survey we have of course only scratched the very surface of this matter. But the results have shown that it is a matter of interest and they have led to further questions. One result that particularly caught my attention is the teachers' opinion towards ICT with regard to speaking activities. Therefore I would find it very interesting to dig deeper into this matter to find out why teachers consider it less suited for the use of ICT. As we remember, ICT stands for information and communication technology. I think that there is already a certain notion of how to use the “information technology” part of ICT. But I also think there is great potential in the use of ICT as a communication tool for students at different schools and in different countries.

Appendix: The Questionnaire

Hej,

jag heter Georg Lindner och är lärarstudent vid Göteborgs Universitet. För mitt interdisciplinära examensarbete har jag valt att undersöka hur gymnasielärare i ämnet engelska använder sig av och ser på IKT (Informations- och Kommunikationsteknologi) som ett redskap i sin engelskundervisning. IKT är nog ett ganska brett och svårdefinierad begrepp. Vad jag menar med IKT i det här sammanhanget är användandet av datorteknik och internet i samband med engelskundervisning (t.ex. filmer, ljudinspelningar, texter ifrån internet, kommunikation med andra via internet i syfte att lära sig engelska, etc.). Det har ingen betydelse om IKT används i individuellt eller gemensamt arbete. Det skulle vara till stor hjälp i mitt arbete om du kunde besvara dessa följande frågor, men deltagandet i den här undersökningen är naturligtvis frivilligt och anonymt.

Vänligen markera ditt svar genom att kryssa i rutan.

1.

Man

Kvinna

2. Hur gammal är du?

> – 35

35 – 50

50 <

3. Hur länge har du jobbat som lärare?

0-5 år

5-15 år

15 < år

4. I vilken utsträckning har dina elever tillgång till en dator / internet i klassrummet?

<input type="checkbox"/>	Alla har sin egen dator
<input type="checkbox"/>	Eleverna delar på ett begränsat antal datorer i klasrummet
<input type="checkbox"/>	Det finns bara tillgång till datorer I ett särskilt datarum.
<input type="checkbox"/>	Eleverna har ingen tillgång till datorer varken i klassrummet eller i ett datarum

5. I vilken utsträckning använder du dig av IKT i din engelskundervisning?

Väldigt mycket	Ganska mycket	Inte så mycket	Inte alls
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

6. Enligt din åsikt, hur bra ägnar sig IKT för engelskundervisningen inom respektive färdighet?

	Mycket bra	Ganska bra	Mindre bra	Inte alls
Reading	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Listening	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Speaking	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Writing	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

7. Hur mycket använder du dig faktiskt av IKT i din engelskundervisning inom respektive språkfärdighet?

	Väldigt mycket	Ganska mycket	Inte så mycket	Inte alls
Reading				
Listening				
Speaking				
Writing				

8. Kan du ge några exempel av hur du använder dig av IKT för respektive färdighet?

Reading _____

Listening _____

Speaking _____

Writing _____

9. Vissa forskare påstår att den ökande användningen av IKT i språkundervisningen, men även i samhället, leder till att läraren blir mer av en vägvisare istället för en kunskapskälla. I vilken utsträckning stämmer detta påstående överens med dina egna erfarenheter som lärare?

Mycket bra	Ganska bra	Mindre bra	Inte alls

10. I vilken utsträckning stämmer detta påstående överens med dina erfarenheter som lärare i

relation till de fyra språkfärdigheterna?

	Mycket bra	Ganska bra	Mindre bra	Inte alls
Reading				
Listening				
Speaking				
Writing				

Tack på förhand!

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