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Translation in Education

A Review of Research on the Topic of Using
Machine Translation in an ESL/EFL Classroom,
Exemplified by Google Translate

Bachelor's project in Lektorutdanning i språkfag

Supervisor: Annjo Klungervik Greenall

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INTRODUCTION

Topic

The challenges that face the English as a Second Language and English as a Foreign Language classrooms are numerous, and complex. With the ever-changing nature of teaching itself, everyone involved in education must be informed and willing to adapt. One of the challenges facing schools at present, is how to apply the available digital tools in an effective and reasonable manner for educational purposes. It is no longer an individual choice if a school or teacher wants to use these tools in the classroom, as it has now become a requirement.

With the gradual introduction of LK20 (Læreplanverket for Kunnskapsløftet 2020), there is more focus on digital skills and tools in all school subjects. Digital skills are named amongst the basic skills that all subjects must include in their teaching practise. More specifically, if we look closer at the English curriculum there is mention of the usage of digital tools at every age level. For example, in the competence aims for English at a 10th grade level, where the pupils are expected to “use different digital resources and other aids in language learning, the creation of text and interaction” (Utdanningsdirektoratet, 2020). Taking this into consideration, teachers must educate themselves on how to take advantage the technological advances that are made available.

Background

I have worked as a substitute teacher at the same school for three years. When I first started my work there in 2018, the school provided three resource carts with laptops and one with iPads, totalling about 90 laptops and 30 iPads for a school of 350 pupils. We had the same materials when I attended lower secondary school ten years ago. Today, each pupil has their personal Chromebook provided by the school. Furthermore, the school is gradually transitioning into using digital teaching material as opposed to books, and most pupils prefer to write on their laptops as opposed to in their physical notebooks. At present, the school is exploring different offers from textbook publishers to go fully digital, and with that abandoning physical textbooks all together. This is one example of how the technological advancement is shaping the way we teach and learn. This digital change has come at a rapid pace and will continue to change the way we learn with the development of even more relevant digital tools for schools everywhere. Therefore, teachers and pupils alike must adapt

to this new way of teaching and learning.

The accessibility of digital aids has grown exponentially in the last decades and are now available for pupils within seconds of them requiring assistance in all subjects. For example, the use of Machine Translation (MT) such as Google Translate (GT) in language learning at teaching. This tool translates words, phrases, sentences, and even full texts into any language you may require. With the emergence of such easy access to translation, the way we teach languages must adapt. We can choose to oppose this development, or we can embrace it. However, the long-term consequences on language learning are still unknown as this is a relatively new field of research, as the tools themselves are newly developed.

Research focus

In classrooms all over the world, pupils sit in front of their computers or tablets. Digital tools are frequently used to assist or completely control the lessons in most subjects in the western world. How has digital translation affected the learning of languages? More specifically, what does recent research say about the impact of Machine Translation tools, such as Google Translate, in an ESL/EFL classroom? Where in the research can we find gaps that need more exploration? I will attempt to find satisfactory answers to these questions by looking at relevant research in the field.

DEFINITIONS

Machine Translation

According to Munday (2016), Machine Translation can be divided into automatic Machine Translation, in which the computer is working alone, and computer-assisted translation where the digital tool is aiding the human translator (p. 18). The purpose of Machine Translation is to generate automatic translations that are used for comprehension. Furthermore, these type of translation tools are being used not only to translate singular words or short extracts, but for example the European Commission use it for full-text translations that then are edited by human translators (Munday, 2016, pp. 289). There exist several different such tools, and Google Translate is one of them.

Google Translate

The app and webpage Google Translate is a free online Machine Translation tool in the form of a webpage and an app, that was first launched in 2006. It now translates into more than 100 languages and is capable of processing large amounts of data at once. Google Translate has since its creation “been used by five hundred million people worldwide and translates over one hundred billion words per day” (Turovsky, 2016, in Damash, 2020, pp. 227). The key feature of Google Translate is instant translation of any length of text input. It has also evolved into having features that read the words out loud, promoting listening and pronunciation.

EFL/ESL classroom

EFL is an abbreviation that stands for English as a Foreign Language, and ESL means English as a Second Language. The difference here is what level of proficiency the English language possesses in comparison to the other acquired languages. The classrooms in which languages are taught can vary immensely based on where the languages place in their overall roster of languages. For example, in the Norwegian classroom we have Norwegian lessons as our first language (L1), English lessons as our second language (L2), and in secondary school one can choose to learn a third language (L3). In this paper I will be using both terms, as I am mainly referring to pupils who are learning English in Norwegian classrooms. Most of the youth in Norway has English as their Second Language, but a significant percentage are learning as a foreign language.

RESEARCH

In this chapter I will be summarizing ten important research papers that have been done in the field of Machine Translation and the classroom. The following articles show a variety of viewpoints on this topic.

Machine Translation in foreign language learning: language learners' and tutors' perceptions of its advantages and disadvantages

BY ANA NIÑO (2009)

This paper by Ana Niño is about the relationship between Machine Translation (MT) and foreign language (FL) teaching and learning. Furthermore, it details the different roles that MT has in the FL classroom: MT as a bad model, MT as a good model, and MT as a vocational

training tool. The conclusions that are drawn in this paper are based upon a study that shows the perceptions of MT by language learners and language teachers, especially looking at free online MT in language tuition.

Machine Translation-assisted language learning: writing for beginners.

BY IGNACIO GARCIA AND MARÍA ISABEL PENA (2011)

Garcia and Pena highlights how Machine Translation has acquired a bad reputation when it comes to second language (L2) learning and teaching, as it is often associated with the Grammar Translation Method (GMT). In this method, source texts in L2 were frequently translated into first language (L1), and this method was abandoned in the 1960s. This paper looks towards the future and highlights how MT can be applied in more constructive ways.

Translation Skill in Language Learning/Teaching: EFL Learners' Point of View

BY ELISABET TITIK MURTISARI (2016)

In the 20th century, the Grammar Translation Method (GTM) was named a “failure”, leading to the situation we now face today where translation in the classroom is being looked down upon as a teaching practice. This article looks at how there is little research that examines how translation can be used as a skill in the modern classroom. This is due to “true” translation being deemed as hard to separate from its usage as a part of interlingual communication, even when it is used in a manner to further educational approaches.

Uniform multilingualism: A media genealogy of Google Translate.

BY IDO RAMATI AND AMIT PINCHEVSKI (2018)

This paper argues that the translation tool Google Translate is representing a new model of translation. This study concerns itself with the operational workings of Google Translate, going into detail about the inner workings of the algorithms that make this possible, with a focus on the relationship between technology, language and speakers. Thereby it provides arguments showing that there has occurred a significant shift with the emergence of more effective digital translation tools and their corresponding algorithms.

Machine Translation and the L2 classroom: Pedagogical solutions for making peace with Google Translate.

BY CYNTHIA DUCAR AND DEBORAH HOUK SCHOCKET (2018)

The use of Machine Translation (MT) has become an essential part of everyday life, much since the translation tools are evolving into helpful additions to language learning. This paper

highlights how MT can be applied in an L2 classroom. It provides some interesting aspects for language teachers to consider in their teaching practice. It additionally concludes that despite immense leaps in the right direction, Google Translate can still be considered too unreliable to be fully incorporated in all aspects of teaching.

Translation and Language Learning: Untapped Potential of Functionalist Approach to Translation in the Foreign Language Classroom

BY EVA SKOPEČKOVÁ (2018)

This paper explores the definition of communication, and how it can be applied to understand the need for proper translation techniques in language learning. Furthermore, it looks at the potential of Communicative Language Teaching as a method to reintroduce translation into classrooms. The conclusions that Skopečková comes to draw on the benefits and the possibilities of this method.

Using Google Translate in EFL drafts: a preliminary investigation.

BY SHAI-CHIU TSAI (2019)

This study by Shai-Chiu Tsu looks at the Google Neural Machine Translation (GNMT) system and argues for the importance of accessible technology that promotes language learning in the situations concerning EFL. It looks at the different skills that are required when learning a new language and identifies writing as the most difficult. In this language discipline, as well as others, tools such as Google Translate can be crucial on the way to becoming fluent. This study also highlights how a mother language affects the learning of a new language, such as EFL.

Translation Apps: Increasing Communication with Dual Language Learners

BY VICKIE E. LAKE AND AMBER H. BEISLY (2019)

In this paper Lake and Beisly look at the relationship between supporting the home language of a learner and that in which one is attempting to learn. More specifically how Dual Language Learners' (DLL) needs can be accommodated in the classroom using digital translation tools. This can assist in closing the gap between understanding each other's languages, meanwhile providing essential language learning as well as relational work.

Exploring the use of online Machine Translation for independent language learning

BY ANA NIÑO (2020)

In comparison to the paper written by Ducar and Shocket, this research shows how Machine Translation is growing to become an essential part of how teachers provide their pupils with

language learning. It also brings attention to how teachers and other users of Machine Translation (MT) for independent language learners must balance two aspects: welcome the changes that are here to stay, while simultaneously being aware of how the digital translation tools are being integrated into the classroom. This is to prevent any unwanted damaging results in language learning that we are as of now unaware of.

I Can't Live Without Google Translate: A Close Look at the Use of Google Translate App by Second Language Learners in Saudi Arabia

BY NADA BIN DAMASH (2020)

This article details how Google Translate App (GTA) is widely used in Saudi Arabia, a country in which English is taught as a second language. Similarly, as in Norway, English is a compulsory subject at schools in the country. The paper draws conclusions that show how GTA is beneficial for ESL learners as a mini dictionary. Furthermore, it encourages the teachers to fully adapt to the change by implementing the tool in their language teaching. Additionally, the study shows that GTA can be beneficial as a translation tool from and to multiple languages, and that the platform draws in language learners due to its accessibility.

DISCUSSION

The role of translation in the classroom

Although translation as a discipline in language learning has been established for centuries, the research on the field is more recent. As Munday (2016) clarifies, it only became an academic discipline in the second half of the twentieth century. Before this translation was not regarded as its own scientific area, more a lesser discipline under acquisition of languages.

As Murtisari (2016) and Munday (2016) explained, the Grammar Translation Method (GMT) was used as the translation framework for educational purposes throughout the early 20th century. It was since abandoned as the standardized method, in favour of other techniques in translation such as the communicative method. Skopečková (2018) investigates the need for communicative translation in schools, and by doing so she is emphasising the need for more Communicative Language Teaching by applying communication as a method and the objective of translation. In comparison, GMT as an example translates L2 source texts into L1 to practice translation techniques and highlight the learning of the desired language.

This is contrasted by the Communicative method, in which the pupils' innate capability to acquire languages and strive to create more natural and authentic situations in the classroom that promotes the learning of a foreign language (Munday, 2016, pp. 14).

In present day, when translation has been reinstated as a classroom discipline, there are new challenges facing it. Most relevant here is the evolution of digital tools that can be of assistance. As mentioned before in this paper, pupils in all age levels of schools now use digital tools frequently in most of their classes. Consequently, each subject must explore and adapt to the tools that are available in order to stay updated on the needs and opportunities that technological advances bring. This is especially relevant in an English as a Second Language or English as a Foreign Language classroom, where Machine Translation can be immensely beneficial in the acquisition of language proficiency.

The application of MT in the classroom

Machine Translation (MT) has become a natural part of the language learners meeting with new languages. Niño (2020) points out that many teachers are now actively using Machine Translation in their teaching practice. This is a natural development when taking the rapid increase of available technology into consideration. Numbers from SSB show that in the year 1995 there were 22 pupils per stationary computer at primary school in Norway, 16 pupils per computer at lower secondary and six per computer at upper secondary (Statistisk sentralbyrå, 1997). These numbers, seen in contrast with how each pupil now has their own Chromebook, can explain the development of Machine Translation for educational uses.

Thereby the presence and availability of Machine Translation is undeniable, but what purpose does it serve in scholastic settings? Lake and Beisly (2019) refers to translation apps as beneficial when learning two or more language simultaneously. This is largely due to how simplistic these apps are, and how user friendly. They provide a means in which all language learners despite levels or prerequisites can acquire the terminology that can help them improve their language learning. Moreover, the use of Machine Translation from L1 to a foreign language creates bonds between the known and unknown, that according to Lake and Beisly (2019) is beneficial in storing the knowledge into memory. Garcia and Pena (2011) also show in their research that Machine Translation can be effective not only in the acquisition of vocabulary, but also as a proficiency tool in the basic skill of writing.

In continuation of this, Niño (2009) examines how language learners and teachers

perceive the use of Machine Translation. Here Niño draws conclusions that MT can be beneficial for language learning, can be a disadvantage in language acquisition, and how it can be a tool for educational purposes. This all depends on how it is thought and with how much intension it is being used. It must be taken into consideration that this article was written 12 years ago, and as the field of Machine Translation is in rapid development, it has since had enormous advancements. However, Niño also writes a paper in 2020 where she draws on the conclusions from her 2009 research. Here she comes to the conclusions that teachers are welcoming Machine Translation into their teaching practice but must be wary of the pitfalls of using it, as there exists arguments explaining that these tools are not reliable. This can be exemplified by Google Translate, a tool in which there has been wide discussion on how and if it is beneficial for language teaching and learning.

The use of Google Translate in the classroom

Google Translate is one of the most widely used Machine Translation tools. Tsai (2019) argues that writing is the most difficult language discipline to become proficient at, and that Google Translate can increase the odds of success here. This is by allowing the learners to access spelling assistance when needed, and furthermore because translation between one's L1 and L2 can help with memorizing and applying the correct vocabulary. This viewpoint is also discussed in Damash (2020), whose study looks at L2 learners of English in Saudi Arabia, a situation that is similar to that of English learners in Norway. In this research paper Damash (2020) explains that Google Translate can be used as a mini dictionary, which benefits the acquisition of language with its availability and simplicity.

Ramati and Pinchevski (2018) looks at how technology, language and the speakers of those languages can benefit from advances within the field of Machine Translation. They look at how the development of digital translation aids such as Google Translate, and how it represents a new method of translation. With the development of effective algorithms that are able to learn while being used, such as in the case of Google Translate, comes significant developments in the potential usage in education.

One of the arguments that Ducar and Shocket (2018) present in their paper, is that we need to accept that Google Translation and other variations of Machine Translation are here to stay. Hence, we need to find ways of implementing this into education with purpose. However, Ducar and Shocket (2018) also draw conclusions that we cannot trust Google

Translate completely, as these technological advances are not yet finished with their development. This can be seen by looking at the leaps that Google Translate has done in its short life span of 15 years.

CONCLUSION

As we have seen in this paper, digital advancements have led to multiple developments in how schools teach languages. One of the most significant advancements has come in the field of Machine Translation. Many sources are pointing to the advantages of using Machine Translation, such as Google Translate, for educational purposes. However, we must also look at the disadvantages of applying Machine Translation in classrooms.

Translation as a discipline in language teaching and learning has changed over the last century. Due to the Grammar Translation Method that influenced early language translation in classrooms, translation became known as a lesser discipline in language learning. However, with the introduction of the more modern Communicative Method that focuses on how languages can be used to improve interaction, translation has regained its reputation as an educational method.

Digital translation tools have had a vast influence in language education so far in the 21st century. With the introduction of easily accessible tools such as Google Translate, teachers and learners alike must adapt. Now, pupils can look up any word or sentence they would like to explore, within seconds of them requiring assistance. This is in contrast to the analogue world of hardback dictionaries that were available in the language classroom before the emergence of Google Translate. One advantage of using Google Translate is the accessibility, and is a tool where pupils have the same prerequisites for success. Secondly, the research presented in this paper argues that present a view in which Google Translate and other Machine Translation tools help the acquisition, especially with writing proficiency.

The research presented in this paper has highlighted both the positive and negative aspects of the technological advances in the field of Machine Translation, focusing on the tool Google Translate. This has illuminated where there is more need for further research. We need to look more into this due to how digital translation is a relatively new field, as the technological advances arrive at a rapid pace, and additionally has been reintroduced as a part

of language teaching. Because translation itself was relatively abandoned from language teaching for a prolonged about of time, there were also missed opportunities to explore it as a research focus. This has led to there being less investigation into the use of translation for educational purposes in general, and even less on Machine Translation. One area that needs further exploration are the long-term consequences of resulting to Google Translate in learning situations. How will it affect fluency and understanding of the acquired language? What will be the consequences for each of the basic skills of languages: reading, writing, listening, and speaking. Furthermore, what will be the role of digital tools in translation and language studies? These questions, amongst many others, need more exploration in the future.

To draw any conclusions in this paper, we must see the topic as a whole. There have been significant advances within translation for education, Machine Translation and even more specifically within the framework of Google Translate as a tool of Machine Translation for educational purposes. The topic of technological advancements in classroom is not a new one and will continue to pose predicaments for schools and teachers in how to effectively use it to promote learning.

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