

## **Chapter Two**

### **Literature Review**

This chapter elaborates literature reviews related to the study. In the beginning, it discusses Machine Translation in the process of English Language Learning. Then, it is followed by an explanation regarding the machine translation and its related theories. Next, it explains the theories related to the types of translation tools. Then, the following section is about the advantages and disadvantages of MT in the process of English Language Learning. Finally, this chapter ends with the conceptual framework.

#### **The Definition of Machine Translation**

Before defining Google Translate, the researcher would like to discuss the definition of machine translation. Okpor (2014) defined MT as a program in the computer which functions to translate and convert the text from the natural language to another language. In addition, according to Arnold, Balkan, Meijer, Humphreys, and Sadler (2001), MT is part of computer program which makes the translation process from one language to another automatically. Costa-jussà and Fonollosa (2015) provided a definition of Machine Translation (MT) as the scope of Natural Language Processing (NLP) that emphasizes on gaining a target language text from a basis language text to target language with an automatic method. According to the above statements, machine translation can be defined as a machine to translate

languages through computer programs. It can be assumed that machine translation is a computer program or software which helps people to convert a text from one language to another language instantly and automatically.

Another definition of machine translation is stated by Katsberg (2012), who stated that automated machine translation, also known as Machine Translation (MT), is the basis independent language translation without human intervention. In this case, the role of human is not completely unnecessary in the translation process itself, but it is still needed to input the text that would be translated to the computer.

Machine translation is an automatic machine that involves computer programs to translate texts from the first language to the target language. This is in line with Kumar (2012) who stated that machine translation is a computer program which makes the process of translating a language to another becomes automatic and instant. The views of the experts say that machine translation is a machine or computer program which processes words and translates from the basic language into target language. Therefore, machine translation is computer system that is used for translating language to the target language without human intervention (the role of human only involves inputting the content to be translated) and without changing the origin context of the basis language.

### **The Definition of Google Translate**

According to Bahri and Mahadi (2016), Google Translate is a service of free machine translation to serve a translating process of the text and message from a language to another language provide by Google Company. Boitet, Herve, Mark, and Valérie as cited in Li et al., (2014)-, assumed that Google Translate is an automatic machine translation provided by Google Inc. which serves the translation process from one written source language to another language. Based on the definitions above, GT can be defined as one of the automatic machines translation available from Google Company to provide the translation service from the source language to the target language.

#### **Google Translate as the Statistical Machine Translation (SMT):-**

Statistical Machine Translation method uses a statistical measurement to translate the specific language sentence into the other language. The parameters used are taken from the analysis of bilingual text corpora (Okpor, 2014). Bilingual text corpora consist of examples of the existing translation. According to Zanettin (2002), "Corpus" or corpora is a group of electronic texts designed according to the clear design criteria generally aiming to represent a larger textual population. The most famous examples of SMT are Google Translate and Microsoft Translator. This is in line with Brown, Cocke, Pietra, Jelinek, Lafferty, and Roossin (1990) who all said that Google translation utilizes the statistical machine. According to Li et al., (2014), Google Translate is classified in statistical machine translation, which provides the statistical decision theory and matches the probability.

## **Google Translate**

Google translate has always been a discussion when people talk about machine translation, moreover in the language learning aspect. This statement is also related to Jin and Deifell (2013) who said that wordreference.com and Google, including the Google search engine and Google Translate, are the two most frequently mentioned online dictionaries and tools across all languages. This is because GT is judged as the aid that can help and reduce the load for students and teacher in the education field. Especially, with the development of technology, GT can be easily accessed by the students in their smartphone and computer which connected to the internet.

According to Alhaisoni and Alhaysony (2017), GT can be used on PC systems and smartphones such as Android and iOS, which makes GT become very familiar among users. Google translate is available for people who need quick translation, the information or the meaning of the content (Li et al., 2014). Boitet et al, as cited in Li et al., (2014) assumed Google Translate is an automatic machine translation provided by Google Inc. which serves the translation process from one written source language to another language. In this era, GT is known as the MT which can service translation from 58 varieties of languages (Schousboe, 2012). Different from Schousboe, Farzi (2016) argued firstly, Google Inc. provided only three languages and with the development of new era, recently there are about 90 languages with various level of language and 200 million people can access on its MT system every day. With those languages, GT as a free multilingual MT also can translate the text, speech, images, also sites, and real-time video from a language to another (Alhaisoni & Alhaysony,

2017). The ability of GT to provide the quick and easy access makes GT well-accepted and popular among EFL learners (Sukkhwan, 2014). However, the EFL students still have to be aware that GT is created for the people in common, it is not only for education purpose (Somers, 2001).

### **Advantages of Machine Translation**

Machine translation can help learners learn and get many words when using MT. According to Sukkhwan (2014), the advantages of GT are easy to use, for examples GT translate the texts quickly; GT is better than the learners' manual translation and helpful to learn words. Sukkhwan also said that students obtain many words by using MT, because MT such as Google Translate provides translating sentences as a whole, so students can understand the meaning of the text. When students transmit a text, they will discover the meaning of a new word they have never known before. Thus, indirectly they will know the meaning of the word. Most students also use GT as a dictionary by translating word by word to learn the exact meaning of the word (Alhaisoni & Alhaysony, 2017).

The other benefit of using MT for the learner is that it can assess the students' ability. Sukkhwan (2014) said that using MT like Google Translate will be more productive when students perform some GT usage behavior, such as reading the text before transcribing it, searching and justifying words using GT Word Function, and editing output from GT. Canga-Alonso and Rubio-Goitia (2016) said that translating using MT makes the students become more aware of the current grammatical differences between the basis and the target language, and they can correct some of

the more common mistakes. Students who are already familiar with the linguistic order will recognize immediately if the output is wrong, and they will try to correct the wrong output. From that mistake of the output, they indirectly assess their knowledge. Jin and Deifell (2013) mentioned that MT such as Google Translate may become a facilitator for the advanced-level learners. They can use MT to re-translate and correct the result from Google Translate, so it can help them develop their understanding about the contextual meaning of each word.

Machine translation can also help the student in their reading and writing process. Study results show that learners feel that using a translation engine is advancing their reading and writing process in the target language and -reducing language anxiety (Jin & Deifell, 2013). This happens because students will also understand the meaning and the contexts from the text by reading and writing it when they translate it into the target language. It may increase their performance in reading and writing skill. Similar to Jin and Deifell (2013) in translating text using MT, students use various strategies such as inserting contextual phrases in terms of reading and writing assignments.

In addition, MT such as Google Translate provides some tools such as a speaker function that can pronounce the inputted sentence. It might help the student to learn and practice how to pronounce a word or sentences. Jin and Deifell (2013) argued that the recent study shows that online dictionary has given more benefits and easier access for the FL students, and it provides lexical meanings and forms in writing, reading, listening, and speaking also in pronunciation of speaking and listening task.

Sukkhwan (2014) also said in the study that learners feel helpful when using GT tool such as speaker button for pronunciation practice.

### **Disadvantages of Machine Translation**

Sukkhwan (2014) stated that students' effort in reading and writing English are reduced when they use GT. Students sometimes hardly learn the new words because GT provides an automatic and fast translation, so they find it difficult to learn English by themselves. Sukkhwan added that students cannot retain the knowledge of the words for long time because they sometimes use GT only excessively and instantly without bothering to remember what the translation means.

Another problem with MT is related to idioms. Okpor (2014) argued that the problem with idioms in the MT context is that people cannot just translate them using the normal rules. Some students with low level of knowledge sometimes do not know whether it is idiom or not when they translate the English words and sentences. For those who do not know, they might ignore the sentence without caring about the meaning, besides that is not the real meaning of the sentence of idiom. For students who use MT without caution, they will just translate the words directly, which defeats the purpose of idioms.

Basic languages such as English are potentially complex where many words have more than one meaning and enable different translations. The various readings might also contain in the sentences and the linguistic entity relationship is sometimes vague

(Okpor, 2014). Chun as cited in Jin and Deifell (2013) also has the same statement as Okpor's, in the online dictionary, the non-specific words with more than one meaning may confuse and overwhelm the low-level students. Alhaisoni and Alhaysony (2017) added that the student perceiving tools such as GT cannot translate all words correctly and the meaning is sometimes inappropriate with their first language, which requires them to check in the dictionary or find others to help confirming it.

Another problem faced when using MT are encountered when correcting grammatical mistakes and composing a time-consuming sentence (Korošec, 2012). The grammar of the sentences may be another problem that students feel in translating the text using MT. Korošec added that even when the students are able to edit the grammatical error of the output text, the editing and correcting process takes too much time. In some cases, there are so many grammatical rules and the students cannot understand them all.

Students also feel that MT is not beneficial when they input the text or content to be converted to the target language. This is because not all students can correctly put the sentence of the structure that will be interpreted. Another problem is because MT is only machine, it follows the rule from the source language to be translated into the target language. This is appropriate with what Sukkhwan (2014) who pointed out that the students feel that the wrong input text can affect the output results. With those statements, the disadvantages that students probably faced when using machine translation are in the words retention, linguistic entities, and the various meaning of



words. Even when they perceive that GT is helpful, they have to be careful because GT is not designed for language learners (Sukkhwan, 2014).

### **Previous Studies**

Recently, many researchers conducted the research related to Machine Translation. For example is the study conducted by Maulida (2017). Maulida (2017) study aims to describe the students' perception toward the use of Google Translate to translate English material. This study used interview as the instrument in collecting the data. The participants were seventh grade students who used GT in the preliminary study and they got many assignments to translate English material. The result of the study showed that GT had some benefits and weaknesses. One of the benefits was that GT helped the students translating faster and GT could complete their assignment. The weakness of GT was that GT was time consuming and the learner put more effort on it.

From this study, there are some similarities and also the differences with this study. The similarities are in the context of Google Translate. The other similarity is the instrument of the study which is interview. The difference between Maulida (2017) and this research is the aim of the study. Maulida's (2017) study aims to describe the students' perception in using Google Translate to translate English material. This study aims to investigate the students' perception on the advantages and disadvantages in using GT in the learning process.

## **Conceptual Framework**

Machine translation can be defined as a machine to translate languages through computer programs. Okpor (2014) defined MT as a program in the computer which functions to translate and convert the text from the natural language to another language. In addition, according to Arnold, Balkan, Meijer, Humphreys, and Sadler (2001), MT is part of computer program which makes the translation process from one language to another automatically. It can be assumed that machine translation is a computer program or software which helps people to convert a text from one language to another language instantly and automatically.

Literature review has shown that machine translation is frequently used by the students in their language learning class. Experts said that wordreference.com and Google, including the Google search engine and Google Translate, are the two most frequently mentioned online dictionaries and tools across all languages (Jin & Deifell, 2013). Boitet et al, as cited in Li et al., (2014) assumed that Google Translate is an automatic machine translation provided by Google Inc. which serves the translation process from one written source language to another language. Google Translate is useful to translate written texts into the target language automatically. This research concluded that the most used machine translation device is Google Translate.

Another theory is the advantages using machine translation. Sukkhwan (2014) claimed that the advantages of GT are that they are easy to use; they translate the

texts quickly; they better than the learners' manual translation; and they help the students to enrich their words.

Lastly, the literature explores the disadvantages of using machine translation the students have in their language learning process. The expert revealed Machine translation (MT) has difficult problems because the basic languages are really complex where many words have more than one meaning and enable different translations. The various readings might also contain in the sentences and the linguistic entity relationship is sometimes vague (Okpor, 2014). Students recognize that GT makes them less likely to put effort into reading and writing in English, in addition to being problematic on words mastery (Sukkhwan, 2014).

In the end, the researcher expects that the teacher will understand and see a lot of impact in using machine translation by the student and adapt in using them in the courses. The researcher also hopes that this research can be a guide for the teacher and students to use translation devices in the learning process. The researcher also provides the description framework in flowchart:

**Figure 1. Conceptual Framework**