

**EXPLORING THE UTILIZATION OF MACHINE TRANSLATION AS A
LANGUAGE LEARNING TOOL IN EFL CLASSROOM**

***(MENGUPAS PEMANFAATAN MESIN PENERJEMAH SEBAGAI ALAT
PEMBELAJARAN BAHASA DI DALAM KELAS BAHASA INGGRIS)***

DIAN SAPUTRA



**GRADUATE PROGRAM
STATE UNIVERSITY OF MAKASSAR
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THESIS

**EXPLORING THE UTILIZATION OF MACHINE TRANSLATION
AS A LANGUAGE LEARNING TOOL IN EFL CLASSROOM**

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***This thesis is dedicated to my parents:
Sri Sumarni and Sartono
Who have given me the greatest encouragement,
love and affection, and an endless prayer for my success.***

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Makassar,

July 2017

Dian Saputra

PERNYATAAN KEORISINILAN TESIS

Saya, **Dian Saputra**

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Menyatakan bahwa tesis yang berjudul *Exploring the Utilization of Machine Translation as a Language Learning Tool in EFL Classroom*, merupakan karya asli. Seluruh ide yang ada dalam tesis ini, kecuali yang saya nyatakan sebagai kutipan, merupakan ide yang saya susun sendiri. Selain itu, tidak ada bagian dari tesis ini yang telah saya gunakan sebelumnya untuk memperoleh gelar atau sertifikat akademik.

Jika pernyataan di atas terbukti sebaliknya, maka saya bersedia menerima sanksi yang ditetapkan oleh PPs Universitas Negeri Makassar.

Tanda tangan.....,

Tanggal.....

ABSTRACT

DIAN SAPUTRA. 2017. *Exploring the Utilization of Machine Translation as a Language Learning Tool in EFL Classroom*. (Supervised by Haryanto and Kisman Saliya).

This research was intended to find out: 1) the way students utilize Machine Translation (MT) as a tool in reading academic article, 2) the reasons of students utilize MT as a tool in reading academic article, and 3) problems faced by students in implementing the MT.

The researcher applied descriptive qualitative research design. This research was conducted in beginner level of proficiency. The participants of this research were ten students. All of them were chosen by using purposive sampling. The researcher carry out this research from March until April. The researcher conducted observation and interviewed. The researcher did the observation by using taking notes, video recording and also interview. Observation take notes and video recording were used to find out participants utilize MT during reading academic article. Meanwhile, interview is to gain the data about reasons and problems faced by students in implementing the MT.

The findings of this research showed that the participants utilize MT during reading academic article as a reading tool in several ways. Those ways were categorized in three parts. First, word to word translation was employed six participants. Second, sentence to sentence translation was employed six participants. Then, the last finding is choosing the types of MT, the data shows that there were seven participants used Google translate, two participants used online dictionary, and one participant used Bing Translator.

Furthermore, there were reasons of participants used MT for helping in reading academic article, the reasons are; a) to understand the new word, b) to learn the symbol, c) to learn the meaning, d) to learn the word formation, e) to learn the pronunciation, and f) easier and faster. Besides that, there were four problems faced by students in implementing the MT. They are: a) the translation result is confusing, b) phonetic symbol, c) using incorrect word, and d) the translation result is rigid.

ABSTRAK

DIAN SAPUTRA. 2017. *Mengupas Penggunaan Mesin Penerjemah Sebagai Alat Pembelajaran Bahasa di Kelas Bahasa Inggris*. (Pembimbing Haryanto and Kisman Saliya).

Penelitian ini bertujuan untuk menjelaskan 1) cara siswa menggunakan mesin penerjemah sebagai alat bantu dalam membaca artikel akademik, 2) alasan-alasan siswa menggunakan mesin penerjemah sebagai alat bantu dalam membaca artikel akademik, dan 3) kesulitan siswa dalam menerapkan mesin penerjemah.

Penelitian ini menggunakan metode deskriptif kualitatif. Penelitian ini dilakukan pada level pembelajar pemula. Partisipan dalam penelitian adalah sepuluh mahasiswa. Pemilihan sampel menggunakan teknik bertujuan. Penelitian ini dilakukan mulai bulan Maret hingga April. Peneliti menggunakan teknik pengamatan dan wawancara. Peneliti melakukan pengamatan menggunakan catatan dan rekaman video serta wawancara. Catatan pengamatan dan rekaman video digunakan untuk mengetahui penggunaan mesin penerjemah oleh peserta selama membaca artikel akademik. Lebih lanjut, hasil wawancara digunakan untuk mengetahui alasan-alasan dan kesulitan oleh siswa dalam menerapkan mesin penerjemah.

Hasil penelitian menunjukkan bahwa peserta menggunakan mesin penerjemah dalam membaca artikel akademik sebagai alat bantu membaca. Terdapat tiga kategori cara. Pertama menterjemahkan kata per kata, terdapat enam peserta menggunakannya. Terdapat enam peserta menggunakan untuk menterjemahkan per kalimat. Kemudian, temuan terakhir adalah memilih jenis-jenis dari mesin penerjemah. Hasil temuan menunjukkan bahwa ada tujuh peserta menggunakan Google Translate, dua peserta menggunakan kamus online, dan satu peserta menggunakan Bing translator.

Dalam penelitian ini. Terdapat beberapa alasan peserta menggunakan mesin penerjemah untuk membantu dalam membaca artikel akademik, alasannya sebagai berikut; a) untuk mengetahui kata-kata baru, b) untuk belajar lambing-lambang, c) untuk belajar artinya, d) untuk belajar pembentukan kata, e) untuk belajar pengucapannya, f) mudah dan cepat. Selain itu, terdapat empat kesulitan yang dihadapi siswa dalam menggunakan mesin penerjemah, diantaranya: a) hasil terjemahannya membingungkan, b) lambang-lambang fonetis, c) menggunakan kata yang tidak baku, dan d) hasil terjemahannya kaku.

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LIST OF ABBREVIATIONS

Abbreviation	Full Form
MT	: Machine Translation
EFL	: English as a Foreign Language
L2	: Second Language
FOMT	: Free Online Machine Translation
GT	: Google Translate
SMT	: Syntactical Machine Translation
CALL	: Computer Assisted Language Learning
TL	: Target Language
SL	: Source Language
P1 – P10	: Participants
PS	: All Participants

CHAPTER I

INTRODUCTION

This chapter deals with background, problem statement, objective, significance, and scope of the research.

A. Background

At this time, after technology has become an essential part of each aspect of our lives, it is unavoidable for people to integrate the use of technology in their activities. Technology is the use of science in industry, engineering, etc., to invent useful things or to solve problems (Merriam-Webster, 2016). As the definition of technology by Merriam-Webster Dictionaries, the technology cannot separate with people activity. People use technology for various dimension of life such as communication, broadcasting, military, industry, and education. Technology is also being used in language learning as a tool which help the learner understand any particular language effectively rather than learning language without technology. One product of technology in language learning is Machine Translation.

Machine Translation (MT) was a development of computer hardware and software to produce translated texts of better quality (Carl & Way, 2003). As reported from Youngblood “progress in MT in the last 40 years has not been very great, and the next 40 years do not look much better”(Youngblood, 2001).

There are online and offline MT. Free online MT, namely Google Translate, Bing Translate, Tradukka.com, freetranslation.com, and etc. Meanwhile, offline MT such as Transtool app, Ace translator and free language translator. Progressing of using MT such as Google Translate has been terrace in recent years. Additionally, among of the greatest popular MT service, Google Translate is well accept and place in the top of position. It indicates that MT cannot be separated in real life; for the student, employee, even if a teacher or instructor.

Online MT is the web-based program application, contrary with offline MT, where the software application do not need any internet connection on operating. Notably, online MT has received increased interest as a tool in second language assistant and swiftly changing of technology. Most of the students use those tools in resolve the barrier of second languages (e.g., Gaspari (2007), Garcia and Pena (2011). On the basis of the above notion, it is clearly that nowadays people are in the age of digital technology and internet.

Google Translate can translate words, phrases, sentences, documents, or whole web pages quickly into over 58 languages including synonym and pronounce (Busby, 2003). Google translate as one of MT was the pioneer in MT at that time until now. Recently MT was built to become one of artificial intelligent that helping human.

In addition, the impact of technology almost general in several aspects, either one is education. The implement of technology is also one of the main parts contribute to language learning. A lot of technology are used in teaching activities or for a student in language learning. In fact, in Indonesia the exploration of the tools in

language learning is limited, one of the tools is a MT. For that reason the researcher interesting to explore the MT in language learning.

In this term the researcher would invite students to read an academic article in learning activities, especially reading activities as a material. Reading is the one of the four language skills, it is receptive skill. The student of English Department in University of Muhammadiyah Sorong before finishing the study they should write a scientific article. While writing a scientific article is extremely important and closely related with reading activities, where in this term it is reading academic article.

Many current studies about MT are widespread such as García (2010) has found that MT can help the beginner and early intermediate learner to communicate more and better. Yet, there seems to be more effort required, when writing directly into L2, more engagement with the task, and also more learning. Another researcher, Garcia and Pena (2011) focused on the use of MT as assisted language learning for beginners in writing skill stated that MT helping the beginner learner to communicate more and also help the learner to write better. Both of the studies claimed that MT can help the beginner or intermediate learner to learn more and better in writing skill. Furthermore, the researcher would make this research to focus on the reading segment. The researcher believes that students are familiar with MT. This research will support the research of MT and will be contribute the further scientific source for the next associate studies. The difference of research about MT is the researcher would use the MT as a learning tool in reading academic article. Additionally, this research is hoping that it will give positive contribution to EFL activities. Aiming at

particular strong point above, the researcher concentrate in elaborating a research entitle “Exploring the utilization of MT as a Language Learning Tool in EFL Classroom”.

B. Research Question

Concerning to the background of the research above, the research questions of this research are stated as follows:

1. How do students utilize MT as a tool in reading academic article?
2. What reasons do the students have to utilize MT as a tool in reading academic article?
3. What are the problems faced by students in implementing the MT?

C. Objective of the Research

Based on the research question above, the objectives of the research are stated as follows:

1. To find out the way the students utilize MT as a tool in reading academic article.
2. To find out the reasons students utilize MT as a tool in reading academic article are.
3. To find out the problems faced by students in implementing the MT.

D. Significance of the Research

The results of this research is expected to be contributive to development of applied linguistics in particular. It is expected to provide not only theoretical significance, but also practical input. Theoretically, this research was expected to deepen the knowledge of MT as one of language learning tool in learning English. On the other hand, the practical significance of this research was to offer advantages information for teachers/learners about MT in EFL teaching and learning process. The researcher expectedly that teacher or learner can consider the use of MT in EFL teaching and learning process. In addition, it would be given contribution to the academic literature on foreign language learning and the role of MT used in learning process, and also contributed to the experience of L2 teachers and learners.

E. Scope of the Research

This research is under the discipline of applied linguistics. In terms of how students utilize MT, what the reasons and also the problems faced by students in implementing the MT in reading academic article are. In this research, a qualitative study which are obtained from observation and interview are used for data collection. Focusing this research in the used of free online machine translation (FOMT). The researcher will conduct the research to the adult beginner level of English language learners. The researcher will conduct the research at the University of

Muhammadiyah Sorong, Sorong Regency, West Papua Province. The reason researcher chooses this research site because students are using MT as a tool in translating their assignment, the researcher often found caught assignment from students using MT.

CHAPTER II

REVIEW OF RELATED LITERATURE

This chapter deals with some previous related research findings, some pertinent ideas, and conceptual framework of the research.

A. Previous Related Research Findings

There are some researchers who have conducted some studies related to this research. Some of them are as follows:

Jolley and Maimone (2015) their survey research reported in Central States Conference on the Teaching of Foreign Languages entitle “Free Online Machine Translation (FOMT): Use and Perceptions by Spanish Students and Instructors” found that students use FOMT frequently on writing assignments than on translating assignments. Meanwhile the result indicated that instructors use FOMT less frequently than students, based on the less confidence and the ratatability and accuracy of FOMT output. However, they had found there 2 common ground between students and instructors, they are: 1) the near consensus that the issue of ethicality or academic integrity hinges on how FOMT tools are actually used, and 2) clear majorities in both groups which favor training by instructors on appropriate and effective uses of FOMT tools in FL learning contexts. This research report of the survey-based study on the use

of and attitudes, perceptions, and beliefs about Google Translate and similar free online machine translation tools by students and instructors.

Karnal and Pereira (2015) discovered that the cognitive strategies in their article entitle “Reading Strategies in A L2: A Study on Machine Translation” obtained that they identified fifty-one strategies in the analysis of the protocols consist of two instruments. There are more cognitive require when used Google translator. The strategy mostly used are supervision and paraphrasing. This research shown that there is beneficially used of Google translator while reading strategies, metacognitive strategies are more appear than other strategies.

Garcia and Pena (2011) also conducted a research entitled “Machine translation-assisted language learning: writing for beginners” shown that while pre-editing the L1 and post-editing the L2 within the MT’s Tradukka.com interface. Based on the analysis of the output produced has found that MT helps beginners to communicate more and it also helped them to communicate better. Additionally, they also found that writing directly into L2 requires more efforts, as measured by number of pauses, and involves more engagement with the task, as measured by the number of editing interventions. This research focus for the beginners learner, because they have consider that research about use of MT as a language learning tool still limited for beginners level.

Korošec (2011) from University of Maribor conducted a research entitle “Applicability and Challenges of Using Machine Translation in Translator Training” at the present by experimental results she finds that students were reported using

GT either occasionally or all the time, and also there are an aspect that contributes to the development of their competences and networking. The second result that the texts output of GT additionally need editing process. And the last result students report that such technology is of limited help and application (useful only for certain types of text as well as drafts, etc.). The result of this research found that when used GT in the process of translation provides knowledge of the students and also the grammatical errors and formulating the sentences need more notice of the translation result.

Similar research from Bozorgian and Azadmanesh (2015) with the research entitle “A Survey on The Subject-Verb Agreement in Google Machine Translation” they investigated subject-verb agreement of Persian translated sentences in Google MT. They found that among 50 sentences translated through Google translator only 20 sentences met the subject-verb agreement criteria. Based on the results there are different translation result of Google translator with Human translator, because human translators are aware of the agreement principles. They claimed that the first null hypothesis is rejected and it can be said that Google MT does not deal better with subject-verb agreement while translating English sentences into Persian compared to human translator.

García (2010) the result of his research in International Conference entitle “Can Machine Translation Help the Language Learner?” displayed that MT can help the beginner and early intermediated learner to communicate more and better, notwithstanding in his sample is too small. Moreover, students to be more effort

required, when writing directly into L2. There seems to be also more engagement with the task, thus more learning, as measured by the number of successful and unsuccessful edits, when they writing directly into L2. In this research reported that using MT in several level of language learning give beneficial, but need more effort in each action.

All the previous research findings above proved that there are advantages and disadvantages of using MT in translating sentence or helping users in teaching or learning process. But, in fact MT gives outweigh advantages rather than disadvantages. There are some features of MT provides for language learners such as: speech recognition to produce the user pronunciation, alternative translation to provide the user another answer of the translation result, and also the speaker icon is to provide how to pronunciation the word(s) or sentences. Therefore, in this study the researcher is conducting a research about the similar term to know the students utilize of MT in reading academic article.

B. Some Pertinent Ideas

1. Machine Translation

In this segment, the researcher first providing a definition of MT system in general terms without receiving any technical parts. Next, the researcher introduces the types of MT. Then, the researcher also introduces the brief history of MT, also

some of the linguistic characteristics providing by Google Translate as one of free online MT which is popularity, which might be helpful for language learners.

a. Definition of Machine Translation

MT began as early as in the 1950s Weaver, (cited in Han & Wong, 2016), and increased a quick development since the 1990s. In general MT is a translation tool. Kastberg (2012) said that translation tools are generally recognized as software assisting the translator to translate a written text from source language into a text in target language. Starting with the strongly definition before shows that MT develop as software support the translation unit. Numerous definition of MT from expert deliver below.

MT mean that computer software which takes a text written in one language and attempts to translate in other language, more than without human interference (Baker & Saldanha, 2009). Hutchins and Somers (1992) argue that MT is the application of computers to the translation of texts from one natural language into another, the technical term of MT is the new traditional and standard name for computerized systems responsible for the production of translation.

Another definition from Somers said that MT is the oldest application of what is sometimes called language engineering, and has been around for over 60 years and the technology has now more reached the equilibrium and more maturity (Somers,

2013). The use of MT more than 60 years is not new, means that this activity was developed and would be developing in the future.

The definition above gives an overview that MT are providing people to lead and use it as language learning tool in the whole aspect including in learning English.

b. Types of Machine Translation (MT)

Historically, MT system improvement has seen three major approaches, which are categorized as rule-based, statistical, and hybrid. Three types of MT describe below:

1) Rule-Based MT

Rule-based MT systems consist of programs which apply, as the name suggest, packages of linguistic rule to analyze the input text and convert it into the target language. These rules are developed by teams of expert linguistics and represent a massive investment by the MT system producers (Somers, 2013). Additionally, O'Dowd (2015) expressed that this process involves extensive lexicons through morphological, syntactic, semantic information, and also substantial sets of guidelines. The software uses these complex rule sets and then transfers the grammatical structure of the source language into the target language.

2) Statistical MT

The statistical approach is an automatically extricating from huge amounts of similar data (millions of words of translations, usually associated sentence by sentence) statistical factors capturing the probabilities of words and phrases

correspondences. Statistical MT systems characteristically do not encode explicit linguistic information, but learn it from analyzing many instances (Somers, 2013). Additionally, O'Dowd (2015) expressed that this approach uses computing power to build sophisticated data models to translate from one source language into another. The translation is selected from the training data using algorithms to select the most frequently occurring words or phrases.

3) Hybrid MT

In order to address quality and time-to-market limitations, many Rule-Based MT developers are augmenting their core technology with Statistical MT technology to create Hybrid MT solutions. Hybrids provide some quality improvement benefits, however, they keep the costs of Rule-Based systems high by adding complexities of managing side-by-side systems.

c. The brief history of MT

The development of MT has been manipulated by many factors through a quarter century of research and development. Some of the crucial issues that influenced the expansion of MT were economic and political issue. Both of them that have changed decisions about the language that to be translated from source language to the target language. Hutchins (1982) was classified that there are four periods the development of MT, namely; the early experimental period (1946-1954), the period of large-scale research on 'direct translation systems (1956-1966), the period after the

ALPAC were developed (1966-1975), and the current period of interactive systems and artificial intelligence approaches (since 1975).

1) The First Period (1946-1954)

Even though there had been applications for translation machines in the 1930's, the real beginning of MT came after the war, followed with the general available of digital computer. Richens and Booth in Britain had did the sample of experiment in 1946, but it was the memorandum sent by Warren Weaver in 1949 to some 200 of his acquaintances which launched MT as a scientific enterprise. The early systems were invariably attempts to produce translations by taking the words of text one at a time, looking them up in a bilingual dictionary, finding the equivalents in the target language and printing out the result in the same sequence as in the source text.

2) The Second Period (1954-1966)

In 1954 the research team at Georgetown University set up a public demonstration intended to show the technical feasibility of machine translation. With a vocabulary of just 250 Russian words, only six rules of grammar and a carefully selected sample of easy Russian sentences, the system demonstrated had no scientific value but, nevertheless, it encouraged the belief that translation by computer had been solved in principle and that the problems remaining were basically of an engineering nature. In the next ten years, research in the United States was supported on a massive scale - at 17 institutions to the tune of almost 20 million dollars, it has been estimated, but the promised 'break-through' did not materialize, optimistic forecasts of commercial systems 'within five years' came to nothing, awareness of serious

linguistic problems increased, and above all the translations produced were usually of very poor quality. In 1964 the National Science Foundation set up the Automatic Language Processing Advisory Committee (ALPAC) at the instigation of sponsors of machine translation. It reported in 1966 that machine translation was slower, less accurate and twice as expensive as human translation and recommended no further investment. Research in the United States suffered immediate reductions and machine translation became no longer a 'respectable' scientific pursuit.

3) The Third Period (1966-1975)

After the 1966, research in machine translation continued for some time on a much reduced scale. Its goals had become more realistic; no longer were translations expected to be stylistically perfect, the aim was readability and fidelity to the original. On the other hand, there emerged a number of linguistically more advanced systems based on 'indirect' approaches to system design and there was a welcome increase in the variety of source and target languages. Research continued throughout on 'direct translation' systems. Two of them became fully operational systems during this period. The best known is SYSTRAN, designed initially as a Russian-English system and used in this form by the U.S. Air Force since 1970. Later it was adapted for English-French translation and this version was delivered in 1976 to the Commission of the European Communities. At various stages of development are further versions for French-English and English-Italian translation. SYSTRAN may be regarded as essentially a greatly improved descendant of the Georgetown 'direct translation' system. Linguistically there is little advance, but computationally the Improvements

are considerable. The main ones lie in the 'modularity' of its programming, allowing for the modification of any part of the processes to be undertaken without the risk of impairing overall efficiency, and in the strict separation of linguistic data and computational processes. It is therefore able to avoid many of the irresolvable complexities of the monolithic Georgetown system

4) The Fourth Period (Since 1975)

These changes in TAUM and SUSY during the last five years or so have coincided with developments elsewhere which blur the previous clear typology of systems into 'direct', 'interlingua' and 'transfer'. At Grenoble there has been a fundamental rethinking of MT system design prompted by changes in computer facilities in 1971. The CETA system revealed disadvantages of reducing texts to semantic representations which eliminated useful 'surface' information. The new system GETA is basically a 'transfer' system with stages of analysis, transfer and synthesis much as in TAUM and SUSY, but it retains the general form and 'depth' of the dependency-model representations of the previous Grenoble system. Although the Ideal of Interlingua representations is no longer the goal, it is intended that the 'deep structure' analyses should be of sufficient abstractness to permit transfer processes to be as straightforward as possible. These developments in GETA, TAUM and SUSY indicate there is now considerable agreement on the basic strategy, i.e. a 'transfer' system with some semantic analysis and some Interlingua features in order to simplify transfer components. At the same time, even the 'direct translation' system SYSTRAN has acquired features of a 'transfer' approach in the separation of analysis,

transfer and synthesis stages and in the consequently easier adaptability of SYSTRAN to new language pairs.

In addition, there are three period added that Hutchins asserted, in the beginning of 1980s, the early 1990s, and early 2000s (Hutchins, 2005).

5) The beginning of 1980s

The 1980s witnessed the emergence of a wide variety of MT system types, and from a widening number of countries. First there were a number of mainframe systems, whose use continues to the present day. Apart from Systran, now operating in many pairs of languages, there was Logos (German-English and English-French); the internally developed systems at the Pan American Health Organization (Spanish-English and English-Spanish); the Metal system (German-English); and major systems for English-Japanese and Japanese- English translation from Japanese computer companies.

Throughout the 1980s research on more advanced methods and techniques continued. For most of the decade, the dominant strategy was that of ‘indirect’ translation via intermediary representations, sometimes Interlingua in nature, involving semantic as well as morphological and syntactic analysis and sometimes non-linguistic ‘knowledge bases’. The most notable projects of the period were the GETA-Arianne (Grenoble), SUSY (Saarbrücken), Mu (Kyoto), DLT (Utrecht), Rosetta (Eindhoven), the knowledge-based project at Carnegie-Mellon University (Pittsburgh), and two international multilingual projects: Eurostar, supported by the

European Communities, and the Japanese CICC project with participants in China, Indonesia and Thailand.

6) The early 1990s

The end of the decade was a major turning point. Firstly, a group from IBM published the results of experiments on a system (Candide) based purely on statistical methods. Secondly, certain Japanese groups began to use methods based on corpora of translation examples, i.e. using the approach now called ‘example-based’ translation. In both approaches the distinctive feature was that no syntactic or semantic rules are used in the analysis of texts or in the selection of lexical equivalents; both approaches differed from earlier ‘rule-based’ methods in the exploitation of large text corpora.

Another feature of the early 1990s was the changing focus of MT activity from ‘pure’ research to practical applications, to the development of translator workstations for professional translators, to work on controlled language and domain-restricted systems, and to the application of translation components in multilingual information systems.

7) The early 2000s

These trends have continued into the later 1990s. In particular, the use of MT and translation aids (translator workstations) by large corporations has grown rapidly a particularly impressive increase is seen in the area of software localization (i.e. the adaptation and translation of equipment and documentation for new markets). There has been a huge growth in sales of MT software for personal computers (primarily for

use by non-translators) and even more significantly, the growing availability of MT from on-line networked services (e.g. AltaVista, and many others). The demand has been met not just by new systems but also by ‘downsized’ and improved versions of previous mainframe systems. While in these applications, the need may be for reasonably good quality translation (particularly if the results are intended for publication), there has been even more rapid growth of automatic translation for direct Internet applications (electronic mail, Web pages, etc.), where the need is for fast real-time response with less importance attached to quality.

d. Types of Syntactical MT

There is a system that implementing of SMT available in some of website, these FOMT are most visited and used in the internet, based on the report from Henry (2014) claimed that there were several FOMT that best of language translation tool, namely: 1) Google translate, 2) Bing translator, 3) FreeDictionary, 4) Yahoo Babel Fish, 5) Yandex translate, and 6) Babylon translator.

2. Machine Translation as CALL

According to Niño (2009) stated that MT as a “CALL tool”. In this manner the use of Free Online MT (FOMT) as inputting a text and having the software translate it contains neither communicative activity nor language analysis. Somers (2001) emphasize that translation is often part of foreign-language learning, he said that learning about MT tools should be part of the curriculum for language learners. He

also mentioned that some researchers have gone further and suggested that MT software can be used to reinforce various aspects of the language learning task, in this respect, the suggestion is that MT can be used as a CALL tool.

The acronym CALL stands for Computer Assisted Language Learning. It is a phrase used by teachers and students to express utilize of computers as component of a language course. The term of CALL is widely used to refer to the area of technology and second language teaching and learning despite the fact that revisions for the term are suggest regularly (Chapelle, 2001). Similar argument from Levy (1997) she maintains that CALL may distinct as the search for and study of applications of the computer in language teaching and learning process.

3. Helpful Features of Google Translation for Language Learners

In this terms providing some linguistics features obtainable from Google Translate, which researcher think that would be helpful for language learning.

a. Speech recognition

The image shows a screenshot of the Google Translate interface with the word 'buku' entered. Red arrows point to various features:

- Speech recognition:** Points to the microphone icon in the input field.
- Listen your speech:** Points to the speaker icon in the input field.
- Other synonyms:** Points to the 'Synonyms of buku' section, which lists: *noun* ruas, pustaka, benjol, kue, papan, potong, halangan, buku catatan, kitab, sendi. Below it says '7 more synonyms'.
- Listen your translation speech:** Points to the speaker icon in the output field.
- suggestion of other translation result:** Points to the 'Translations of buku' section, which lists: *noun* book, title, knuckle, gran, opus, joint, pellet, knot, lump, set. Each translation is followed by its Indonesian equivalent.

Figure 1. Speech recognition

In figure 1 above shown that some features present for language learning; learners can use the speech recognition to check the pronunciation is correct or not. If the pronunciation incorrect, the system will not produce the sound. Language learners can also use the speech that how to pronunciation word, synonym of other word give the other similar word to choice. Other features is other suggestion of the translation result, give other suggestion.

b. Alternative translation

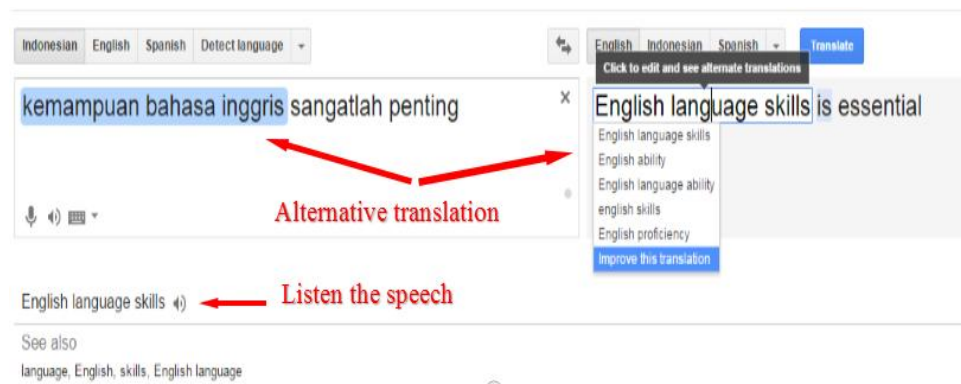


Figure 2. Alternative translation

In figure 2 above show the other feature of Google Translate is alternative translation to user that very useful for language learners. The user only choice the best answer of alternative translation based on their need.

c. Word-alignment

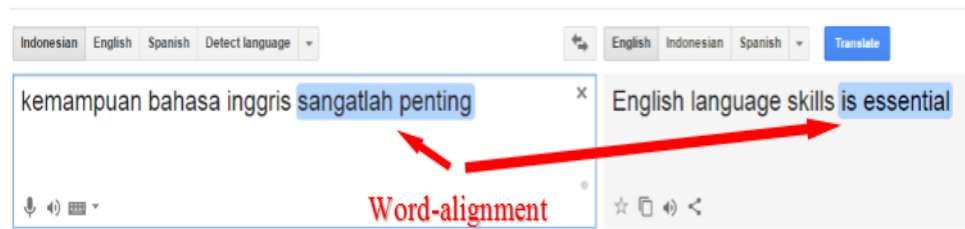


Figure 3. Word-alignment

The other useful features of Google Translate is word-alignment, it is very important and helpful that the user can consider to use it.

d. Swap languages



Figure 4. Swap languages

Swap languages is one of other helpful feature of Google Translate which give the other option for the result of translation in two-way direction.

e. Word formation

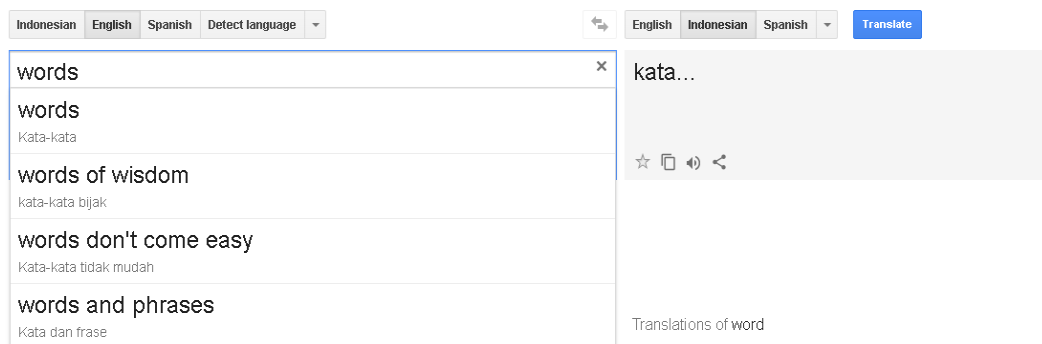


Figure 5. Word formation

Word formation is the new feature from Google translate that give the new experience and beneficial for the user who using this MT. This feature give the other option of translation result or the word formation of one word only.

Having all these features, the researcher thinks that give beneficial for learners who are learning the language. Although the translation process of a machine is based on recognizing the words and translating them one by one rarely following the grammar and punctuation rules.

4. Reading

Reading is one of difficult skill in language learning, to understand of text or scientific content should closely recognize how to reading. Worther (1993) described that reading is a process of thinking, evaluating, judging, imaging, reasoning a problem solving. Definition above can be define that reading as a procedures of seeing at and understanding what written text means.

There are four kinds of reading (Hall, 1983), which is identified as reading for information, reading for ideas, reading for escape, and reading for engage. Each terms will be discuss below:

1. Reading for information. This term deal with to learn about a trade, or politics, or how to accomplished something. For example read a newspaper, or most textbooks, or directions on how to assemble a bicycle. Through most of this sort of material, the reader can learn to scan the page quickly, what the needs and ignoring what is not relevant. This reading type refer to skimming term.

2. Reading for ideas. In this term, thought as reading literature. Read a work properly, slowly, and catch all the words. On the other hand, time consuming from each pages or each sentences, reflecting on the text. People who read may need to re-read the material, take notes, and define words. Intellectual reading requires with intellectual reading, which is slow because it is the reflective and pause to evaluate the concepts. This reading type refer with scanning term or summarize key ideas.
3. Reading to escape. This reading is automated daydream, for instance, novels, stories, biographies, historical sagas, these are opium of the suburb. What sometimes called genre fiction, Hall describes escape reading as narcotic reading. Because, type of this term is relate with reflect of focus on personal reaction or summarize plot.
4. Reading for engage. In this phase, the reader would find emotional center, identify things confusing or strange, then summarize or paraphrase whole. For instance, if we read a work of literature properly, we read slowly, and we hear all the words. If our lips do not actually move, it is only laziness.

C. Conceptual Framework

The objective of this research is to disclose the students' utilize of MT in reading academic article and also the reason. To make the concept of MT the researcher formulate the conceptual framework below.

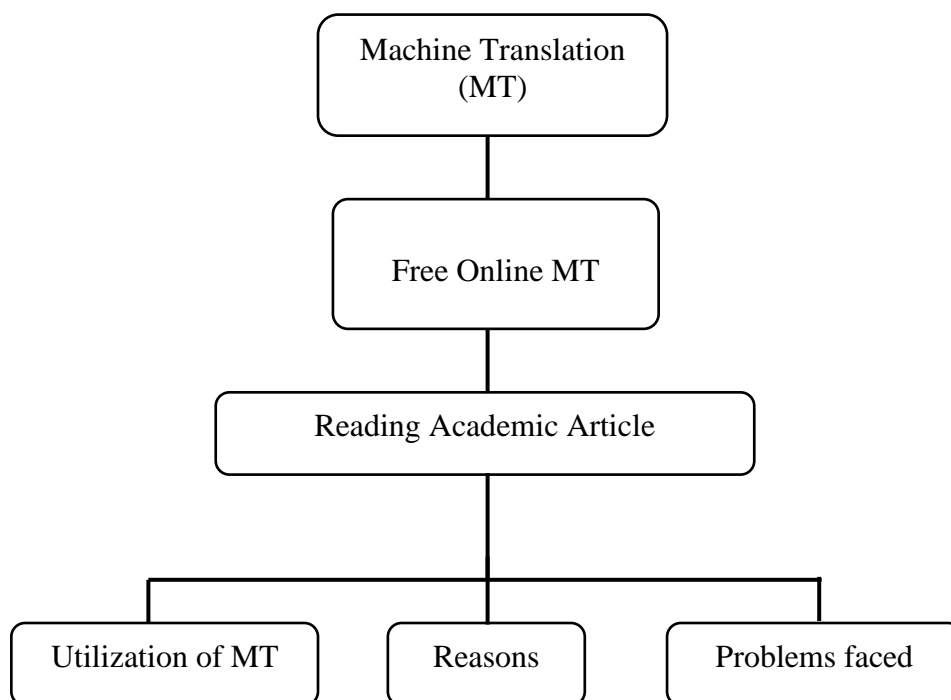


Figure 6. Concept of MT as a learning tool in reading academic article

CHAPTER III

METHOD OF THE RESEARCH

This chapter presents research design, operational definition, participants, instrument, procedures of data collection, technique of data analysis, and trustworthiness of the research.

A. Research Design

This research is conducted a descriptive research design in qualitative approach. Descriptive research determined and reported the way things are. Qualitative research is the collection, analysis, and interpretation of comprehensive narrative and visual (i.e., no numerical) data to gain insights into particular phenomenon of the interest. The reason way the researcher selected students at beginner level of proficiency is because advanced proficiency students would already be able to read academic article without a support for understanding.

Therefore, the simulation of students utilize MT in reading academic article, then, the researcher observed the simulation. Next, Open-ended interview was delivered to response the participant answers bravely. On the types of interview the researcher focused on group interviews. The aim of this research is to analyze students utilize of MT, the reasons and the problems faced by students in implementing the MT specifically helping in reading academic article.

B. Operational Definition

The following key terms and used for more explanation in this research, they are;

1. MT is the computer program to translate the language(s) from target Language to source language in online or offline.
2. English foreign language (EFL) students are the students/learners who speak English as their foreign language.
3. Language Learning Tool is the sets of equipment that provide in language learning.

C. Research Participants

The participants of this research were the university students of English Department of Muhammadiyah Sorong University. The participants were students in second semester of academic year 2016/2017. Because the term of this research is a qualitative phase, the researcher used purposeful sampling. The typical sample of the participants were based on what researcher requires, and to help the researcher understand the phenomenon under investigation, they are:

1. The participants are able to use computer/laptop at least 1 year.
2. The participants are able to operate the browser application, such as: Mozilla Firefox, Google Chrome, Opera Mini, etc.

3. The participants are familiar with online MT as a computer programs because this application software has some characteristics that should be able to operate.
4. The participants are capable in operating the Microsoft office and PDF at least in general term.

Based on the criterion of participants, the researcher selected ten participants. Consider with the typical of qualitative research to study a few individuals or a few cases. In this term the researcher provided an in-depth interview.

D. Instrument of the Research

This section deals with some instruments used in this research. They were:

- 1) an interview guide as a lead for researcher in conducting open-ended interview in focus grub interview.
- 2) observational field notes as a guide for researcher in conducting observation as observer.
- 3) a video recorder device; to record the data collection in focus grub interview.

E. Procedures for Data Collection

To collect the data, the researcher used interview as the main instrument for data collections and the secondary was using observation. To assessed the data above, the researcher following the procedures:

1. Interview Data Collection.

This phase, more explore the phenomenon by using in-depth interview, focus group interview were used. Focus group interviews is a data collection process through interviews with a group of people, typically four to six. Focus group interviews used to collect share understanding from several individuals as well as to get views from specific people. Based on definition before, focus group interviews delivered to gain participants way about the using of MT in reading academic article and also the reasons. Participants were divided into 3-5 peoples, interview protocol consists of open-ended interviews, (see appendix 1). The question were investigated the objective of this research.

2. Observation field notes

In this observation, the researcher became the participant observer. Some steps delivered while observation. First, the researcher provided breafing for participants about this research and also how to did the simulation. Secondly, the researcher observed participants while used MT on reading academic article in 60 minutes.

3. Video Recording

Video recording delivered to record the way participants utilized MT during reading activity. Taken the video recording also for help the researcher to gain the data during observation section.

F. Technique of Data Analysis

In conducting the data analysis, the researcher used some features that help this research more effective and less time consuming. The steps of this phase were included: data reduction, data display, and conclusion; drawing and verification (Miles & Huberman, 1994).

1. Data Reduction

Data reduction deals with the process of whereby the mass of qualitative data that may be obtained such as interview transcription, field notes, or observation is reduced and organized. Not only the data which need to be condensed for the sake of manageability. The data also to be transformed. So, it can be understandable in terms of the issues being addressed (Miles & Huberman, 1994).

Related with the description above, the researcher simplified the data taken from the activity of participants, the data from observation field notes and interview has been reduced and transformed by selecting and categorizing the data.

2. Data Display

According to Miles and Huberman (1994) maintained that data display is an organized, compressed assembly of information that permits conclusion, drawing, and action. In addition, Miles and Huberman also suggested that a good

display of data were in the term of tables, charts, networks, and other graphical formats is necessary.

3. Conclusion drawing and verification

The third part of qualitative analysis is conclusion drawing/interpretation and verification. Conclusion drawing involves stepping back consider what the analyzed data mean and to assess the implications of the data. Verification fundamentally associated to conclusion drawing.

In this research, the collected data were presented through the observation and interview. In other hand, the researcher highlighted some important point after analyzing the data, then taking the conclusion from the result of the data display based on the research question.

G. Trustworthiness of the Research

Similar to quantitative research that has a validity of the research, in qualitative also has the validity, these criteria delivered on Guba's criteria for validity of qualitative research (cited in Gay, Mills, & Airasian, 2012), they are; Credibility, Transferability, Dependability, and Confirmability.

1. Credibility means that the researcher's capacity to proceeds reports all of the complexities that present themselves in a study and to deal with designs that are not easily explained. Credibility is internal validity in quantitative research (Shenton, 2004). In this research, the researcher uses typical sample of

participant to gather the credibility of the research. Depth-interview construct in one-on-one interviews that might give conclusion.

2. Transferability is the researcher's belief that everything is context-bound. Transferability is external validity (Shenton, 2004). Baselay strongly proposes that "if the practitioners believe their situations to be similar to that described in the research, they may relate the findings to their position" (Bassey, 1981). The strength of the description before, in this research interviews transcription and observation to draw together.
3. Dependability means that the stability of the data. Dependability is the reliability of the research (Shenton, 2004). Shenton argues that dependability refers to the research design that viewed as a prototype model. In this research, the design utilizes observation and interview data collections to appearance how the researcher completes the analyzing of the data collect from the individual interviews.
4. Confirmability means that the neutrality or objectivity of the data collected. Shenton (2004) argues that confirmability is the objectivity of the research. Bowen (2005) supposes, the confirmability might preserve of keeping the records in the research, including all of the information and the unfinished data. Considering that matter, the researcher well prepares to maintain the instrument of data collection, such as; video recording, interviews protocol, and transcription, also observation checklist, and photographs or using portable document format to keep the data safely.

CHAPTER IV

FINDINGS AND DISCUSSIONS

This chapter particularly deals with two main points related to the results of the research; findings and discussions of the research. The findings of the research illustrate the result of data collection and data analysis, whereas the discussion focuses on the advices and interpretations of the research findings.

A. Findings

This chapter presents the findings of the research found based on the data collected. The data collection consists of interview and observation field note and also the students' recording utilize of MT in reading academic article. Apart from those instruments, while student's activity was taking place, the researcher had initially observed the learning activity in the classes. The data of observation class was taken on March 2017 until April 2017. The researcher observed the classroom activity six times, two meetings for each week. The numbers of participants were 10 participants in two class. The observation progressed in agreement with the lecturer schedule of reading course.

The researcher took all the data about the way students' utilize MT in reading academic article, the reason and the problems faced by students in implementing MT. the researcher also used screen recording during the utilizing of MT on laptop. Beside that the researcher also used interview section to get the data deeply.

The researcher took the interview section to the students on 12th and 14th April 2017. The purpose of interviewing the students was to know the way they are using MT and also their opinion. The researcher interviewed the students in group discussion, each group interview consisted of four and five students. The data analysis was initially focused on students utilized MT during reading academic article.






1. The way students utilize MT as a tool in reading academic article

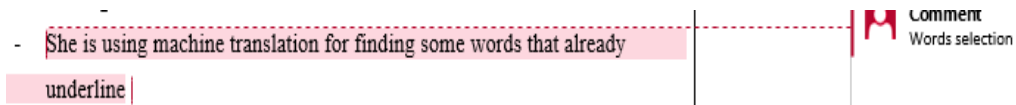
Academic article is one of the material that should be known by students as an English Department students in reading course which give benefit for them during study in the university. Academic article contains of scientific writing which is as beginner reader needs special attention and it will be difficult if they do not have a good vocabulary. Nevertheless, there is a tool for helping the new readers to make easier during reading an article, this tool is machine translation. Based on the explanation in chapter two, W. Hutchins and Somers (1992) argues that MT is the application of computers to the translation of texts from one natural language into another.

Based on the summarizing of MT above, the researcher classified the way students utilize MT as a tool in reading academic article into four categories which are: 1) Words selection, 2) Sentence selection, and 3) Choosing the Machine Translation. All the data were taken from observations fields' note, video recording, and interview.

a. Word to word translation

Based on the observation of the research when conducted the research, the students participated actively in the class. All of them were being involved in reading academic article. Some of them using laptop and mobile phone to open MT. There are two reading activities in this research, the first reading activity has three participants and second reading activity has three participants used MT for translating difficult words. It can be seen from the observation field notes and also screen captured in laptop which the researcher has already taken related to the students used MT, there are six participants complete first reading activity during using MT only for translating words, as following below.

P8	- They write the methodologies of the academic article	
	- Participant only using machine translation for finding unfamiliar words	 Comment Words Selection
P4	-	
	- He is only using machine translation for finding unfamiliar words	 Comment Words selection
P2	-	
	- He is only using machine translation for finding unfamiliar words	 Comment Words selection
P5	-	
	- She is using machine translation to find out the meaning of unfamiliar word	 Comment Words selection
P6	-	
	- She is using Google translate for find the meaning of difficult words.	 Comment Words selection
P10		



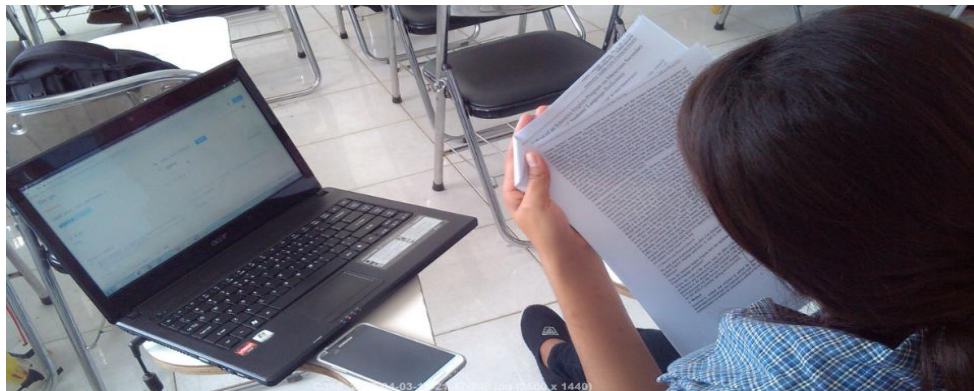
Capture 1. Participants used MT in translating words

Capture 1 above shown that based on the observation field notes during reading activity the participants used MT for translating only in the words that they did not understand. The researcher gave code word to word translation to identify that participants used MT only for translating unfamiliar or difficult words.

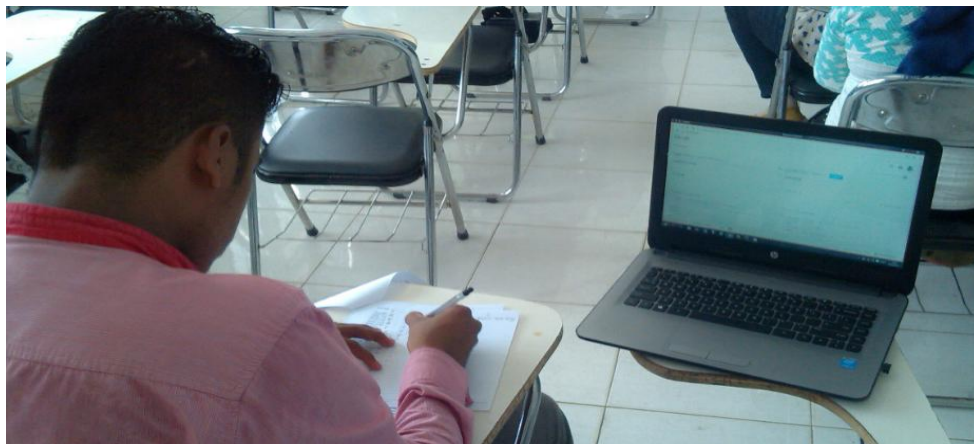
Another data collection from screen capture also shown that the participants used MT only in translating the word. In picture 1, below where taken from two screen recording which in two reading activities. Participants generally showed their ability in reading, they did not used MT in translating the sentence. Even though they did not know the meaning of these sentences, it can be shown as follow:



Screen Recording 1 first activity



Screen Recording 2 first activity



Screen Recording 3 second activity



Screen Recording 3 second activity

Picture 1. Screen recording of participants utilize MT in translated only the words in activity one and two.

In addition, the researcher did the interview for participants used MT during reading academic article only for finding difficult words, the data shown similarities answer with the observation field note that researcher did. It can be shown below;

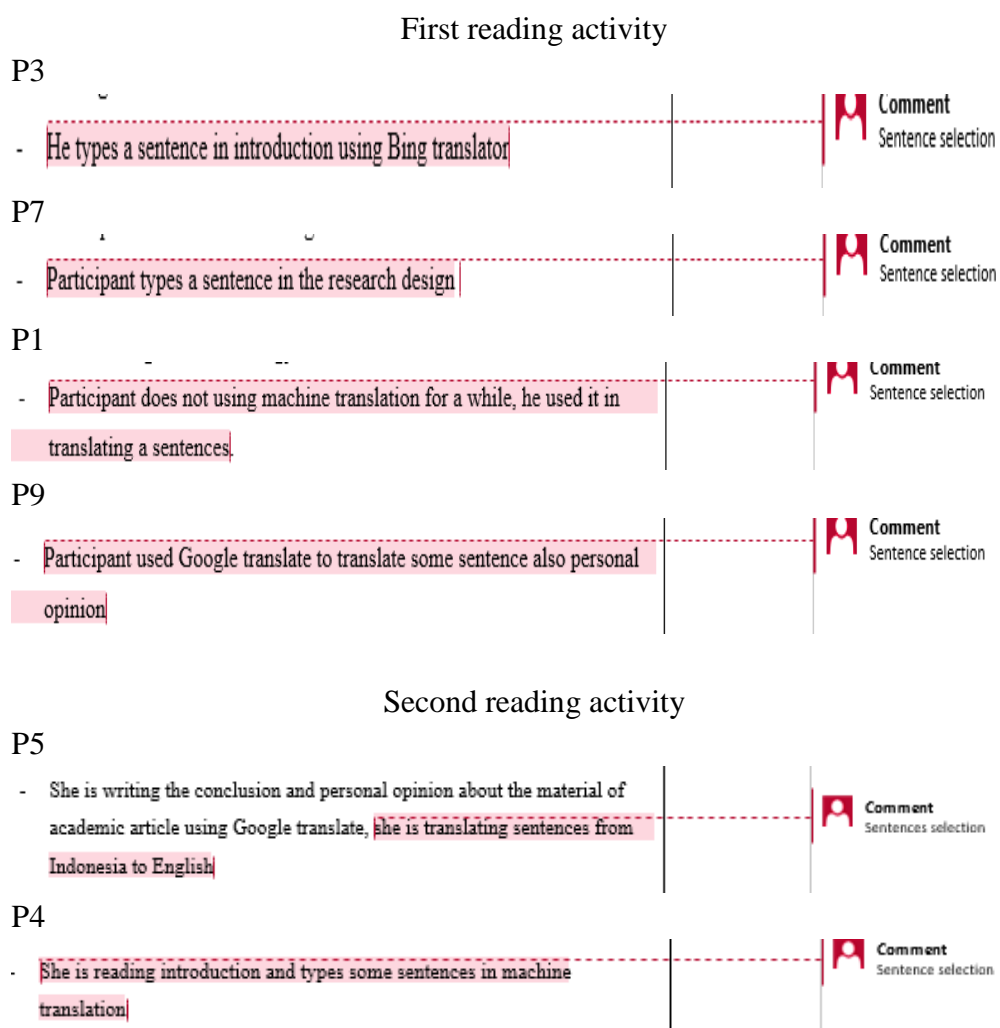
- R : In which part do you think Machine Translation is used in solving reading academic article, in what parts? Is it when you find unfamiliar words or sentence?
- P4 :I am not using Google translate for everything, I use it if there is a new word in the article.
- P8 :So, there are a few words that are very hard then I used machine translation, not for a paragraph or a sentence.
- P2 :firstly I tried manual, I use the dictionary if indeed hardly to understand recently I use Google translate.
- P5 :if I did not know only one word, then I translate it one word only
- P6 :in my opinion the existence of machine translation is very helpful in interpreting word by word

From the results of interview above, the participants said that they only use MT in translating difficult words. The data from observation field note and screen recording also interview section has shown that all of data is matching, it shows that the participants during reading activity used MT as a translation tool only for translating word.

b. Sentence to sentence translation

Translating sentence is one of the category in this research. Participants used MT for translating a sentence or several sentences through reading academic article. This category of those participants is more likely used to complete the task that

lecturer gave for them. Based on the observation field notes that was taken from two reading activities, there are four participants and two participants used MT during reading activity one and two. The following captures below showed that how the way that participants utilize of MT through reading activity.



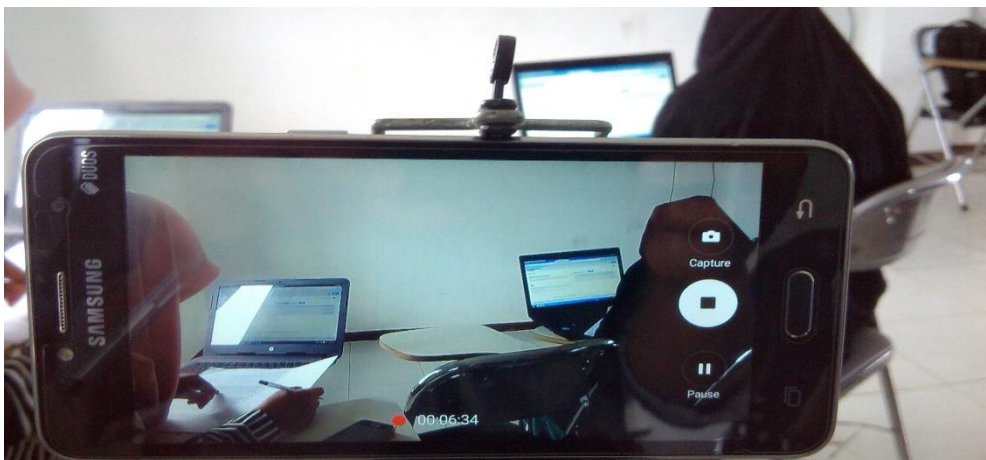
Capture 2. Participants used MT in translating sentences

Capture 2, above shows that based on the observation field notes during first and second reading activity, the participants used MT for translating sentences. The researcher gave code sentence to sentence translation to identify that participants using MT only for translating sentences.

Another data collection from screen capture also shown that the participants used MT for translating sentences. In picture 2, below where taken from two screen recordings which in two reading activities, it can be displayed below:



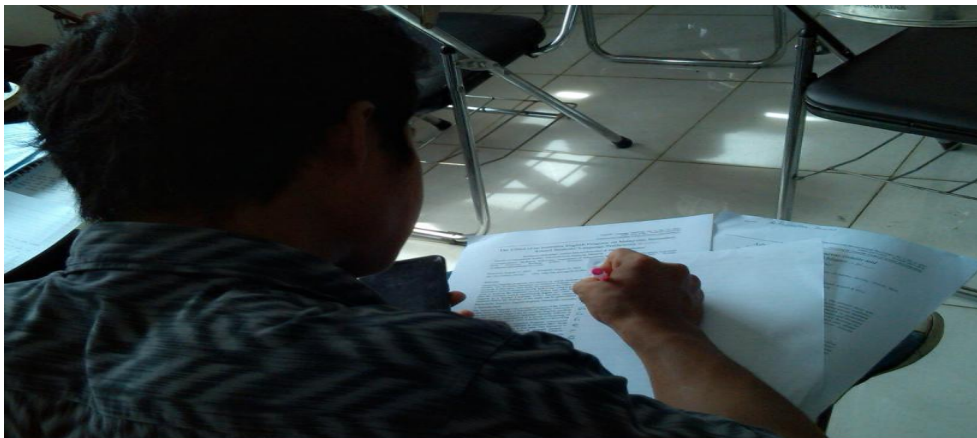
Screen Recording 1 first activity



Screen Recording 2 first activity



Screen Recording 3 second activity



Screen Recording 4 second activity

Picture 2. Screen recording of participants utilize MT in translating a sentence during reading activity

In the picture 2 above, it can be seen that the participants used MT to complete the reading academic article and used it to translate a sentences. In picture 2 that where taken from two recordings which had different reading activity but still related with reading academic article. The data presented that participant used MT during reading activity for translating a sentence or some sentences, this activity for

completing the task that lecturer gave for them. Meanwhile, other data from interview that researcher did while participants used MT during reading academic article has shown similarities answer with the observation field notes, the data completed below;

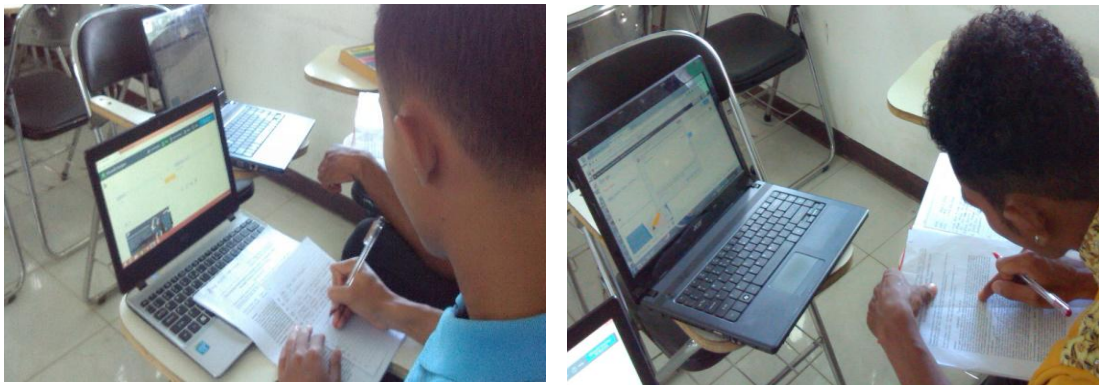
- R : In which part do you think Machine Translation is used in solving reading academic article, in what parts? Is it when you find unfamiliar words or sentence?
- P1 :but if one sentence is hard to translate, so I still need a machine translation to translate some words.
- P3 : So, in translating a sentence we have to use machine translation, so that we might better understand the meaning of the sentence in academic article.
- P7 :and also the sentence that I do not know the conclusion or what that sentences means.
- P9 :So, I think with Google translate, we can to understand the words that are new, also sentences that is difficult to take the meaning.
- P6 : if in one sentence there are a few words that I do not know, then I'll translate it in the whole of the sentence.
- P4 :any of the connected sentences which I do not know and I use Google translate.

From the results of interview above, the participants said that they use MT in translating some sentences. The data from observation field note and screen recording also interview section has shown that all of data is matching, it has shown that the participants during two reading activities used MT as a translation tool for translating sentences that difficult to take the conclusion.

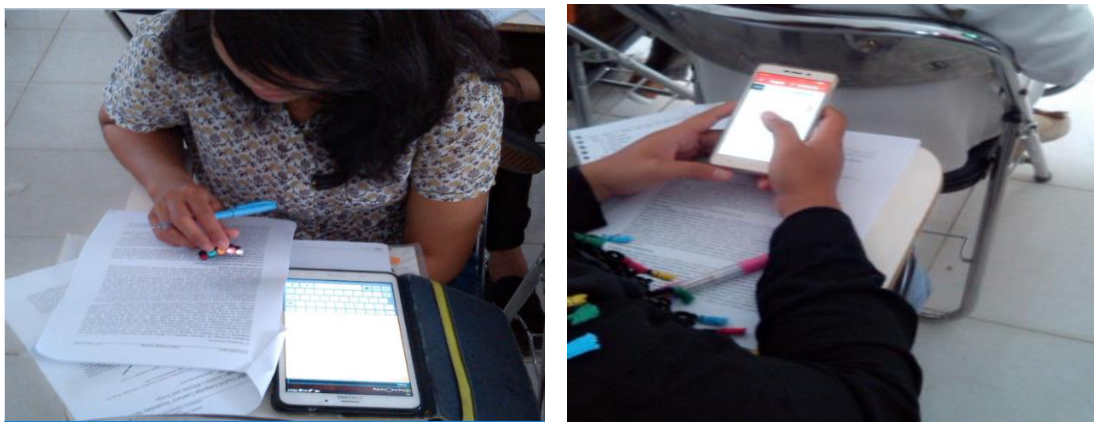
c. Choosing the Machine Translation

Based on the explanation in chapter two from Henry (2014) argued there were six famous and familiar of FOMT that people used in the word. Besides that researcher also observed several types of FOMT that participants used. It can be seen below:

First observation



Second observation



Picture 3. Screen recording of participants used types of MT

In the picture 4 above, participants used some of the FOMT during reading academic article, based on the observation 1 and 2 participants used laptop and smartphone. There were three types of FOMT that participants used, they were Google translate, Bing translator, and online dictionary. In addition, the data from observation field notes also proved (see appendix 4).

2. The reasons students utilize MT as a tool in reading academic article

This part deals with the reasons students used MT as a tool in reading academic article. The reason of used MT as a tool in reading identified based on the interview had been conducted. The researcher found that there were several reasons why participants using MT in reading academic article. They are; to understand the new word, to learn the symbol, to learn the meaning, to learn the word formation, to learn the pronunciation, and easier and faster. The data can be displayed below:

a. To understand the new word

The first reasons is to understand the new word, there were four participants used MT during reading academic article to know the meaning of new word that they found, this reasons stated by participants in the interview 1 and 2, the results seen below;

R : *Apa alasan anda menggunakan mesin penerjemah?*

P5 : *Kalau untuk saya yaitu untuk mempermudah saya dalam mencari kata-kata baru tanpa membuka-buka kamus, lebih enak saja.*

- P4 : *Alasan saya menggunakan mesin penerjemah adalah karena ada kata-kata baru, supaya lebih menghemat waktu, lebih cepat dan lebih akurat untuk memahami artikel.*
- P9 : *Kalau dari saya, artikel itu kan bagi kita pemula ini, diartikel itu kan banyak kata-kata yang baru dan ilmiah jadi dengan menggunakan Google translate itu sangat membantu dan memahaminya dengan tepat, selain itu juga dapat mempersingkat waktu.*
- P10 : *Alasan utama yang paling mendasar adalah saya mengerti kemampuan saya, saya tidak mau memaksakan diri kalau ada kata-kata yang saya tidak tau kenapa saya tidak cari dengan mesin translation.*
- R : What are your reasons to use machine translation?
- P5 : For me that is to facilitate in finding new words without open the dictionary, more comfortable.
- P4 : The reason that I used the machine translation is because there are new words. So, more time-saving, more quickly and more accurately in order to understand the article.
- P9 : From myself, this article was new for us as beginner, it is a lot of new words and scientifically. So, by using Google translate it very helpful and understand it properly, otherwise it can also minimized the time.
- P10 : The main reason that most fundamental is I understand my capabilities, I don't want to force myself if there are words that I do not know why I do not search in machine translation....

The whole of quotations above proved that participants used MT to understand the meaning of new words in academic article, because when participants tried to guess the meaning by their self, it would made confused. Based on the answer that researcher got from interview section.

b. To learn the symbol

Another reason is to learn the symbol, there are features of MT that available to use, and one of them is phonetic symbol. The participant exposed to use MT to understand the phonetic symbol of the word. Participant supposed that they also learn of the phonetic symbol during use of MT made them completely understand. It can be seen from the results of the interview 1 below;

P3 : *Alasan saya pasti samalah dengan ketiga teman saya, namun alasan saya yang lain adalah karena agar saya lebih mengetahui tentang cara penulisan phoneticnya bagaimana, serta cara pengucapannya juga.*

P3 : I am sure that my reason same with my friends. However, my other reason is because I want to know more about the phonetic symbol, also pronounce of that word

From the interview above, the participant used MT because it was available to know the phonetic symbol of word that participant found.

c. To learn the meaning

The next reason that participant used MT is to learn the meaning, it is included meaning of word or sentences. The participant expression can be seen from interview 1 below:

P6 : *Alasan saya menggunakan mesin penerjemah adalah yang pertama agar saya dapat memahami arti dari kosakata yang saya tidak pahami, dan yang kedua adalah untuk mengetahui cara pengucapannya juga.*

P1 : *Alasan saya adalah saya gunakan mesin penerjemah adalah untuk menterjemahkan kalimat, bukan kata per kata. Kalau kata per kata saya biasa menggunakan kamus.*

- P4 : *Alasan saya menggunakan mesin penerjemah adalah karena ada kata-kata baru, supaya lebih menghemat waktu, lebih cepat dan lebih akurat untuk memahami artikel.*
- P7 : *Dengan menggunakan machine translation, lebih mudah memahami artikel dan menurut saya sangat efektif untuk membantu memahami bacaan artikel.*
- P6 : The reason that I used the machine translation is the first that I can understand the meaning of vocabulary that I don't understand, and the second is to find out how to pronunciation as well.
- P1 : My reason is I used a machine translation is to translate a sentence, not word by word. If word by word I usually used a dictionary.
- P4 : The reason that I used the machine translation is because there are new words. So, more time-saving, more quickly and more accurately in order to understand the article.
- P7 : By using machine translation, it is easier to understand the article and in my opinion it is very effective to help understand a reading the article.

From the thrumming above, shown that five participants uttered used MT to understand the meaning of the reading passage in academic article.

d. To learn the word formation

The next reason is to learn the word formation, FOMT such as Google Translate having feature that available of word formation. One participant said that he used MT also to learn the word formation. It can be seen below,

- P10 : *Alasan utama yang paling mendasar adalah saya mengerti kemampuan saya, saya tidak mau memaksakan diri kalau ada kata-kata yang saya tidak tau kenapa saya tidak cari dengan mesin translation. Jadi otomatis saya memanfaatkan mesin translation untuk membantu memahami teks reading akademis ini. Selain itu juga saya gunakan untuk lebih mengetahui pembentukan dari sebuah kata. Lebih memudahkan menggunakan dibanding dengan kamus biasa.*

- P10 : The main reason that most fundamental is I understand my capabilities, I don't want to force myself if there are words that I do not know why I do not search in machine translation. So, automatically I utilize a machine translation to help understand this academic text. Moreover I used to know the word formation. Easier to use than the regular dictionary.

From the interview above, it can be decided that participants used MT to know the correct formation of one word or contained several words.

e. To learn the pronunciation

The next reason of using MT is to testing the pronouncing of the words. Participants said that they used MT to know the pronoun of word or sentence. It is one of the beneficial features in FOMT. The data was taken from participants in interview 1 and 3 below;

- P6 : *Alasan saya menggunakan mesin penerjemah adalah yang pertama agar saya dapat memahami arti dari kosakata yang saya tidak pahami, dan yang kedua adalah untuk mengetahui cara pengucapannya juga.*
- P3 : *Alasan saya pasti samalah dengan ketiga teman saya, namun alasan saya yang lain adalah karena agar saya lebih mengetahui tentang cara penulisan phoneticnya bagaimana, serta cara pengucapannya juga.*
- P8 : *... kita bisa tau juga cara bacanya, otomatis kita bisa tau tanpa harus menebak-nebak bagaimana cara pengucapannya.*
- P6 : The reason that I used the machine translation is the first that I can understand the meaning of vocabulary that I don't understand, and the second is to find out how to pronunciation itself.
- P3 : My reason that I am sure same with my friends. ..., also pronounce of that word
- P8 : ... we can also know the way of reading, there is also how to pronounce, automatically we can understand without guessing how to pronounce.

From the interview above, it can be determined that participants used MT to know the correct pronunciation of the words and sentence without guessing.

f. Easier and faster

The last reason that researcher found based on the interview is easier and faster, there were four participants expressed this reason during interview section. The data shown below,

- P5 : *Kalau untuk saya yaitu untuk mempermudah saya dalam mencari kata-kata baru tanpa membuka-buka kamus, lebih enak saja.*
- P10 : *... Lebih memudahkan menggunakan dibanding dengan kamus biasa.*
- P8 : *Iya biasakan kalau kamus kita harus buka dulu dan memilihnya dulu, sedangkan menggunakan mesin penerjemah kita tinggal ketik saja langsung muncul artinya, sangat mempersingkat waktu, kita bisa tau juga cara bacanya,*
- P2 : *...saya pakai Google translate ketika waktu sudah mepet, tetapi jika saya pikir waktu masih bisa saya akan coba untuk mentranslate secara manual,*
- P5 : For me that is to facilitate in finding new words without open the dictionary, more comfortable.
- P10 :Easier to use than the regular dictionary.
- P8 : If we used a dictionary we should choose and selecting it first, while using a machine translation directly we just type and the meaning up, time-saving and we can also know the way of reading,....
- P2 :I use Google translate when the times is going over, if I thought the time could still on then I will try to translate it manually

The data above proved that participants also used MT because it is easier and faster than used manual dictionaries. MT has features that are easier for the user to use such as two-way direction, word-formation, translate document and others.

3. The problems faced by students in implementing the MT

This segment deals with the problem faced by students in implementing the MT during reading academic article. To identify the problems faced by students in implementing the MT, researcher used interview result. Based on the interview section, the researcher discovered several difficulties, they are; the translation result is confusing, phonetic symbol, using incorrect word, and the translation result is rigid.

a. The translation result is confusing

There were two participants that researcher interviewed said got problem during implementing the MT during reading academic article, the result seen below;

- R : *Apakah anda mengalami kesulitan ketika menggunakan MT?*
- P10 : *Saya biasanya kesulitan saat ingin mengetahui makna atau arti dari penggabungan dua kata, terlebih jika kalimat bahasa Inggrisnya sulit. Hasil terjemahan membuat bingung.*
- P4 : *Menurut saya ketika menggunakan mesin penerjemah, saya sedikit mengalami kesulitan dalam memahami hasil terjemahan dari kalimat yang panjang, contohnya dalam 1 paragraph. Makanya saya hanya gunakan untuk beberapa kalimat atau kata saja.*

- P9 : *Saya sudah terbiasa menggunakan mesin terjemah seperti Google translate, saya sedikit susah untuk mengerti kalimat yang diterjemahkan dari bahasa Indonesia ke bahasa Inggris. .*
- R : Do you find difficulties to use MT?
- P10 : I usually find difficult to know the meaning of the two words, especially if using difficult English word, the translation result is make me confused.
- P4 : I think when using machine translation, I slightly have difficulty in understanding the results of the translation of a long sentence, e.g. in 1 paragraph. That's why I only use for a few sentences or words only.
- P9 : I was used machine translation like Google translate, and little difficult to understand the meaning of translation result from Indonesia to English.

The data above proved that participants got difficulties to understand the meaning of translation result of MT, the translation result made participant confused. MT has feature that beneficial for the user to better understand the meaning of translation result, it is alternative translation.

b. Phonetic symbol

There was two participants that researcher interviewed said that got problem during implementing the MT to know the phonetic symbol of several words, the result seen below;

- P8 : *Saya mengalami kesulitan saat ingin mengetahui penulisan symbol dari kata yang saya cari, mungkin itu saja selebihnya saya fine2 saja saat menggunakannya.*
- P7 : *Kalau saya tidak terlalu banyak mengalami kesulitan dalam menggunakan mesin penerjemah, hanya saja saat ingin mengetahui symbol dari kata yang saya cari kurang pas jika saya cocokkan dengan kamus biasa.*

- P8 : I'm having trouble to know the symbol of the word I was looking for, maybe only that, as a long as I did all be fine while using it.
- P7 : I have not loot of difficulty in using a machine translation, but difficult to know the correct written of the phonetic symbol of word that I type.

From the result of interview above, participants difficult to identified the phonetic symbol of word. The researcher assumed that in MT the features of phonetic symbol is still limited access.

c. Using incorrect word

In the interview section there were three participants that researcher interviewed was uttered that difficult to understand the meaning of sentence that contained incorrect word rather than used correct word, the result seen below;

- P6 : *Yes, ketika saya menggunakannya untuk mentranslate kalimat yang ada dibuku itu saya pahami, tetapi ketika menggunakan kalimat yang saya buat hasil terjemahannya kacau.*
- P1 : *Yes, ketika saya menggunakan Google Translate atau Bing Translator saya sulit mengerti jika menterjemahkan dari bahasa Indonesia ke bahasa Inggris.*
- P5 : *Iya, saya kesulitan saat mengartikan kalimat yang saya buat kedalam bahasa inggris.*
- P6 : Yes, I have understand the meaning of translation result of MT to translate a book, but to translate the sentence that I made, I got confused to understand the meaning.
- P1 : Yes, when I used Google Translate or Bing Translator I got have confuse to translate from Indonesia language to English.
- P5 : Yes, I felt difficult when I want to translate the sentence that I made to English.

The extract above shown that the participants got problem during implementing the MT. Most of participants said that difficult to understand the meaning of sentences that they made. The researcher assume GT is better use correct word formation in Indonesia language and translate it to English then use incorrect word formation.

d. The translation result is rigid

The translation result of MT is rigid, there were three participants said that they were got difficulties to understand the meaning of word. Participants supposed the translation result was awkward if combining with the other word. The data shown below;

- P3 : *Sejauh ini saya menggunakan Google Translate mengalami kesulitan dalam menggunakan memahami terjemahan dua gabungan kata, hasil terjemahannya kaku.*
- P2 : *Menurut saya, ketika menterjemahkan kalimat yang panjang itu hasil terjemahannya kurang pas gitu.*
- P3 : So far when I used Google Translate I found difficult to understand the translation of two words, the translation result was little rigid.
- P2 : I think that to translate long sentences the translation result was not connected or incorrect.

Some of these answers from the interview above indicates that there were problem during implementing the MT in reading academic article, two participants

above said that they found difficult to understand the translation result, some of them said that was rigid.

B. Discussions

This part focuses on the interpretation of findings regarding the use of MT as a tool in reading academic article. It deals with the way, reasons, and the problems faced of students utilize MT as a tool in reading.

Classroom observation has been conducted for six meetings, researcher used observation field notes during participants used MT as a tool in reading academic article. Moreover, the researcher did the interview as the final step. The researcher found that there were several ways of utilize MT which are categorized onto four categories and also there are five reasons why students used MT. Then, the last was the problems faced by students during implementing the MT.

1. The way students utilize MT as a tool in reading academic article

The findings have confirmed that participants gave helpful responses regarding the use of MT as a tool in reading academic articles. Considering that statement, the researcher classified based on the observation field notes, presented are: 1) word to word translation, 2) sentence to sentence translation, and 3) choosing the MT. All of participants' responses are taken from observations which are video recordings and observation field notes.

The first category that the researcher classified is word to word translation, the participants used MT for translating the words. Hutchins and Somers (1992) argues that MT is the application of computers to the translation of texts from one natural language into another language. Text consists of words, it means that MT is also available to translate the words. Throughout the observation, the researcher has found that participants type some words in MT and automatically translate it in the target language. In the first observation during reading activity one there were six participants who used MT for this classification. Meanwhile, there were three participants during reading activity two who used this classification.

Another classification that the researcher used is sentence to sentence translation. Nino's study (2008) showed that students produced fewer errors when translating into the L2 by post-editing than when they translated the traditional way. Based on the findings of Nino before indicated that the use of MT for translating sentences into second languages, it gave beneficial, although needed post-editing. During the observation, the participants have accomplished this classification, also from the interview section that participants gave opinion that MT helpful for translating

several sentences. There were six participants used MT for translating sentences during two reading activities.

The last category that researcher did is choosing the MT during reading activity. Henry (2014) argued there were six famous and familiar of FOMT that people used in the word. For the period of observation the researcher found not only Google translate that participants used, there were ten participants in this research which are seven participants who used Google translate, two participants used online dictionary, and one participant used Bing translator. These types included use laptop and smartphone/mobile phone.

2. The reasons students utilize MT as a tool in reading academic article

In this research, other finding is the reason why students employed MT in classroom as a tool in reading academic article. From the data which was collected by interview, the researcher found that there were five reasons of students utilize MT as a tool in reading academic article which are: a) to understand the new word, b) to learn the symbol, c) to learn the meaning, d) to learn the word formation, e) to learn the pronunciation, and f) easier and faster.

People used MT while they cannot understand the meaning of the source language, the students also used MT for translating the word or sentences, even though that have translating document. Based on the result of interview, four participants said that they used MT to know the meaning of new word, MT can be used to translate new word, because the system of MT always update in real time.

The second reason that participant told during reading academic article and used MT as a translation tool. Participant also learn the phonetic symbol, this feature also available in MT. in this reason only one participant said used MT to know the phonetic symbol.

Another reason is to understand the meaning. Based on the expert that this is one of the reason people used MT. MT is available features that helpful for people who need translation tool, and for beginner language learner. As a study from Niño (2009) asserted that “MT helping the beginner learner to communicate more in the L2, to be able to write more words relevant to a situation, and this help seems grater the less the learner knows”. Based on finding there were four participants expressed this category.

Next reason is to learn word formation. MT is one of the source in translation area. It is unique, because there is word formation and it is the new feature of MT. Word formation features give the other option for user to choose the best translation result or the best word formation.

To learn the pronunciation is the other reason that researcher found based on the interview section, participants said that they used MT for testing how to pronounce the word in the correct way. There are three participants asserted this category for the period of interview section. In MT there is feature that available to try the sound of the word or how to pronoun that word. In addition, there is feature that user can try whatever the user utterance is correct or wrong. In case, if the utterance is incorrect, it will not process, then the utterance is correct the MT will

process and directly appear in the screen. That is one of the participants reason used MT, beside for translating it is also for testing the sound of word.

The last reason is easier and faster. The participants argued that they employed MT because it is easier to use rather than used paper dictionaries for translating word or sentence. The participants also said that used MT also faster to translate lot of papers or documents although need post editing. Based on the interview there were four participants claimed this part of the reasons why people used MT.

3. The problems faced by students in implementing the MT

In this research a further finding is the problems faced by students in implementing the MT. From the data which was collected by interview, there were ten participants in this research and based on the findings of problems faced by students. The researcher found that there were four similarities problems faced during implementing the MT, they are; the translation result is confusing, phonetic symbol, using incorrect word, and the translation result is rigid.

The first finding of problems faced by students in implementing the MT is the translation result is confusing, three participants said that they got problems to understand the meaning of translation result. Participants also said that when they

translate long sentence the translation result make confusing and difficult to understand the meaning.

Phonetic symbol is one of another problem faced by students during the use of MT, two participants declared this category. They said that in MT, it is difficult to know the phonetic symbol, how to write the correct one of that word. FOMT like Google translate or Bing translation essentially have the phonetic symbol features, although that features do not give the best phonetic symbol yet.

Another problems faced by students in implementing the MT is using incorrect word. Three participants claimed that they got difficult to understand the meaning of sentences that participants made. It was really true, because one of the limited area of MT is translate the sentence using incorrect word, especially in translating from Indonesia to English. Another feature in FOMT that participants should consider is the another result option of translation result in combining two words or sentences. This feature would give the best choices for the participants to understand the meaning of two scientific words or sentences.

The last problems faced by students in implementing the MT is the translation result is rigid. Two participants argued that they got difficult to understand the meaning of the new words, the meaning is rigid other participants said. There is alternative translation result that new features in MT and the participant or user should consider to use it in understand the new word, and also make the translation not rigid.

CHAPTER V

CONCLUSION AND SUGGESTION

This chapter deals of two sections, they are conclusion and suggestion.

A. CONCLUSION

Based on findings and the discussion in previous chapter, conclusions could be drawn. The followings are the description of the findings based on research questions explained in chapter I.

The participants have shown the result of utilize MT during reading academic article. There are three ways that researcher found through observation, they are: 1) word to word translation, 2) sentence to sentence translation, and 3) choosing the use of MT.

There were reasons of participants used MT for helping in reading academic article as a translation tool, based on the interview segment, the reasons are: a) to understand the new word, b) to learn the symbol, c) the meaning, d) the word formation, e) the pronunciation, and f) easier and faster.

Problems faced by students in implementing the MT is one of the question in this research. There were four categories of problems faced, they are: a) the translation result is confusing, b) phonetic symbol, c) using incorrect word, and d) the translation result is rigid.

Furthermore, the used MT in helping reading article makes benefit for the participants, because it is helpful and it makes them understand more.

B. SUGGESTION

Based on the conclusion above, the researcher address the following suggestions:

1. For students

This research can become a guidance for students who need a translation tool as a new reader, there are some features that available in FOMT and give beneficial in learning English.

2. For other researchers

This research only focuses on reading activity, specifically on reading academic article using MT, and also this research only use qualitative method. This research lack of the linguistic area a further researcher can explore more with varied scope of the research.

3. For developers of MT

This research is expected to give the benefit contribution for the developer of MT and for the better translation product in the future.

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