

CHAPTER II

THEORETICAL REVIEW

This chapter presents some theories of research variables applied in this research it describes grammatical analysis of the translation of the article abstract by Google Translate and DeepL.

A. The Theory of Translation

Translation theory is concerned with the appropriate translation method to use for a particular type of text and is therefore based on the functional theory of language. However, in a broader sense, translation theory is the body of knowledge we have about translation, from general principles to guidelines, advice, and guidance. The theory of translation section will explain the process of transition from the source text to the mental image and how it differs from the source text.

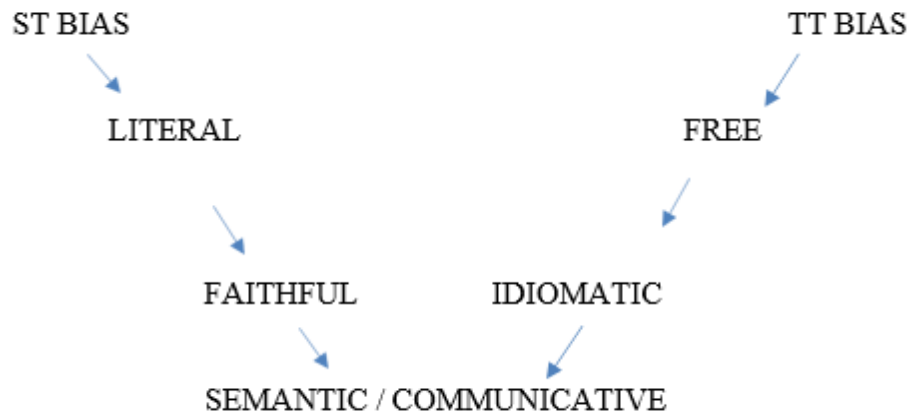
What is translation theory for? First, identify and define the translation problem (no problem, no theory of translation), second, list all the factors that must be considered to solve the problem, third, list list all the possible translation selection processes and finally propose the most suitable translation options. the most suitable translation process and the most suitable translation results. On the other hand, translation theory is about choices and decisions, not about source language (SL) or target language (TL) mechanisms, and the main concern of translation theory is to determine the Translation methods are appropriate for different types of texts or text genres. Furthermore, translation theory also provides a framework of principles, rules, and limited guidelines for translating texts and commenting on translation results, as a basis for problem-solving.

According to Nida and Taber (1969), only linguistic translations can be considered "faithful", because they "contain only elements that can be derived directly from the BSu, avoiding any form of the interpolation formula

that explains or justifies the appropriate culture of this institution”.

Nida (1976) proposed a three-step model of the translation process. In this model, the surface elements of ST (grammar, meaning, connotation) are analyzed as basic linguistic structures that can be transferred to Bsa and reconstructed as surface elements of ST. His approach to language has fundamental similarities with Chomsky's theory of syntax and transformational generative grammar.

Newmark's binary classification of translation, namely semantic and communicative, is linked to linguistic theory, similar in some respects to Nida's formal and dynamic equivalents. “Communicative translation”, Newmark (1981), “seeks to produce an effect as close as possible to that obtained by SL. Semantic translation seeks to translate as faithfully as possible the semantic and syntactic structure of the SL. Second language, exact contextual meaning of source language.” (Newmark, 1981). These two approaches can be clearly illustrated in the following figure:



1. The Definition of Translation

The translation has many definitions. There are many definitions of translation reflecting the fact that many translation scholars base their definitions of the authenticity of translation and the translation process on their perspectives. Some translated definitions are:

- a) Translation involves giving meaning to a text in another language as intended by its author.

- b) Translation is the replacement of a text document of one language with an equivalent text document of another language.
- c) Translation is the process of transferring information from one language or language to another. The aim is to reproduce as completely as possible all the grammatical and lexical features of the source language. At the same time, all factual information contained in the original text should be preserved in the translation.
- d) Translation is the transfer of main thoughts or ideas from one language to another. The basis of translation is a change of form. When we talk about linguistic form, we mean the actual words, expressions, clauses, sentences, and paragraphs, whether spoken or written.

In Larson's book, *Meaning-Based Translation*, he writes: The translation is essentially a change of form. When we talk about linguistic forms, we mean words, phrases, clauses, sentences, paragraphs, etc. both spoken and written. In translation, the form of the source language is replaced by the form of the recipient (target) language. This shows that translation refers to two utterances or two forms or two languages; source language and target language. To make things more difficult, in Larson's book he focuses on meaning and not just changing statements, form, and language. So, most people can use the general definition of translation and get closer to understanding it, as mentioned in Larson's previous explanation. He represents all parties.

There are many definitions of translation, but each has something in common. There are two things in translation, which are 1) translation is an attempt to replace the text in the source language with equivalent or better text in the target language, and 2) the translated text expresses an intention or idea of the authors. In short, translation replaces and conveys a message from the source language to the target language. This means that the translator can translate or create equivalent meaning from the source language to the target language so that the reader or listener can grasp and understand the meaning of the text.

2. The Methods of Translation

a. Word For Word Formation

They are often presented as alternating translations, with the SL immediately below the word SL. The word order of the TL is preserved and words are translated word by word according to their most common meaning, out of context. Word-for-word translation is mainly used to understand the mechanics of the source language or to explain difficult text as part of the pre-translation process.

b. Literal Translation

The SL grammatical structure is converted into the closest TL structure, but the vocabulary is translated one by one out of context. As a pre-translation process, this is an issue that needs to be addressed.

c. Faithful Translation

Faithful translation seeks to faithfully reproduce the contextual meaning of the TL within the limits of the TL grammatical structure. It “eliminates” cultural jargon and maintains a certain degree of grammatical and vocabulary “irregularity” (deviation from SL standards) in the translation.

d. Semantic Translation

Semantic translation differs from “faithful translation” in that it must take into account the aesthetic value (i.e., beauty and naturalness of sound) of the SL text, compromising where necessary on “meaning”, so that there is no assonance, no play on words. There are no repetitions, nor do any repetitions appear in the final version. The difference between faithful translation and semantic translation is that faithful translation is uncompromising and dogmatic, while semantic translation is more flexible, open, and creative.

e. Adaptation

It is the freest form of translation. It is mainly used in theatre (comedy) and poetry; themes, characters, and plot are often retained, SL culture is transformed into BSA culture, and the text is rewritten. The sad reality is that literally translating a play or a poem and then having it rewritten by a famous playwright or poet has resulted in many mediocre adaptations, but others have been rescued.

f. Free Translation

Free translations copy material without support or content without its original form. This is usually a longer interpretation than the original, called an "intralingual translation", which is often wordy and pompous and is not a translation at all.

g. Idiomatic Translation

Idiomatic translation reproduces the message of the source language but tends to distort nuances of meaning by favouring colloquial language and idioms that do not exist in the source language.

h. Communicative Translation

Communicative translation seeks to convey the contextual meaning of the source language in such a way that the content and language are easily accepted and understood by the reader.

3. The Types of Translation

Catford (1969) divides translation into three distinctive types, namely:

- a. Full translation vs. Partial translation
- b. Total vs. Restricted translation
- c. Rank of translation

The difference between full and partial translation has to do with the degree to which the SL text is processed during the translation process. **In full translation**, the entire text goes through the translation

process, and each part of the SL text is replaced with TL text, for example:

<u>Indonesian</u>	<u>English</u>
Aku cinta Indonesia	I love Indonesia
Dia akan pergi kesana	He will go there

However, in partial translation, some parts of the SL text are not translated. They are simply transferred and incorporated into the TL text because they are so common or frequently used that there is no need for translation, for example:

I like Hamburger	Saya senang Hamburger
We need microfilm	Kami memerlukan mikrofilm

We can notice any significant changes to the underlined words above in the translation of hamburger, perhaps they change phonologically (pronunciation), but microfilm-microfilm, both spelling and pronunciation were revised.

The difference between full translation and limited translation has to do with the linguistic level involved in the translation. **In total translation**, SL grammar and vocabulary are replaced by equivalent TL grammar and vocabulary.

The child	has slept	for	three	Hours
Anak itu	telah tidur	selama	tiga	Jam

Restricted translation, at the grammatical and lexical level, means lexical substitution and replacing SL vocabulary with equivalent TL vocabulary but not a grammatical substitution, e.g:

Replacement of grammar:

(Anak itu/	telah tidur/	selama/	tiga jam)
• Noun Det/	Aux verb/	prep /	Det Noun (Indonesian)
• Det Noun/	Aux V3/	prep/	Det Noun (English)

Replacement of lexis:

(Anak itu/ telah tidur/ selama/ tiga jam)

- Child that/ already slept/ for/ three hour

The third type of distinction in translation according to Catford concerns the level in the grammatical hierarchy where translation equivalence is established, the translation of this rank can be as:

- Word-to-word translation
- Group-to-group translation
- Sentence-to-sentence translation
- Paragraph-to-paragraph translation
- Discourse to discourse translation

In this type of translation, lexical and grammatical adjustments must be applied to achieve equivalence of meaning. The vocabulary and grammar adaptation will be discussed further in modules three and two respectively. In the article “On the linguistic aspect of translation” (Jacobson, 1959):

- a. Intralingual translation or rewording. It is the interpretation of verbal signs by other signs in the same language, for example, paraphrasing.
- b. Interlingual translation or translation proper. This is the interpretation of verbal signs using other languages, for example: replacing SL text with its TL equivalent.

intersemiotic translation or transmutation. It is the interpretation of verbal symbols using a symbology, for example, verbal art towards music, dance, cinema, or painting.

B. Machine Translation

Machine Translation (MT) Machine translation means automatic translation, it is in the field of artificial intelligence. Machine translation is a computer program designed to translate text from one language (source language) to another language (target language) without human assistance.

The purpose of machine translation is to provide a system for translating text from a source language to a target language and the translation represents the same meaning as in the source language. General Translation Steps Any human translation can be described in the following steps: Decode source text and re-encode to the target language. Decoding and encoding require in-depth knowledge of the source language (SL) and target language (TL). This includes understanding the grammar and semantic syntax of both languages. Natural languages are very complex in terms of word meanings, grammar, etc.

To obtain immediate translation results, machine translation, or MT, is employed. As an illustration, consider itranslate, Yandex, DeepL, U Dictionary, Microsoft Translator, and Google Translate (GT). Users can utilize GT for a variety of tasks, including translating conversations in different languages, translating using a camera, typing, speaking, and translating handwriting. MT is most frequently used for translating words from other languages, this study focuses on Google Translate and DeepL.

1. Google Translate

Google Translate is a free, multilingual machine translation service developed by Google for text translation. It offers a web platform and mobile applications for Android and iOS that allow developers to create visual extensions for apps and applications. Google Translate supports more than 100 languages in different contexts and serves more than 500 million people every day as of May 2017.

In November 2016, Google announced that Google Translate would replace its machine translation engine: Google Neural Machine Translation (GNMT), which "translates entire sentences at once instead of one sentence at a time." "The point is to use these boundaries to determine meaning, and then it changes and changes as the person speaks correct grammar." Originally activated in just a few languages in 2016, GNMT is available in 105, languages as of 2019.

Google Translate is a free translation service launched by Google in April 2006. Translate multiple forms of text and media such as words,

sentences, and web pages. Google Translate was first published as Statistical Translation (SMT). Translating the required document into English is a necessary step before translating it into the chosen language. Because SMT uses predictive algorithms to transform text, grammar was poor due to the changing nature of language

In November 2016, Google replaced its translation system with something called 'Neural Machine Translation'. It uses Deep Learning methods to process all sentences simultaneously and provide sufficient context-specific information. As of 2018, this translates to over 100 million words per day.

a. As a translator

It is an important feature as an online translator, especially Google Translate is widely used in English to Indonesian translation work.

b. As an online dictionary

Another advantage of Google Translate is that it is similar to an online dictionary. When a user searches word by word, Google Translate automatically shows various options to translate the source word into the target language.

c. As online thesaurus

Google Translate can also be useful as a thesaurus or for selecting the meaning of a single word. In addition to the different types of word meanings, the scope of use of the word is also evident.

d. As a spell checker

Google Translate is not only an online language translator, it also checks for errors in the pronunciation of appearing words.

e. As a tool to learn the pronunciation of foreign language words

For example, Google Translate can be used for those who want to learn a foreign language, especially those who want to learn how to pronounce English words.

Google Translate is also vulnerable. The current system allows

Google Translate to translate word by word, regardless of word structure, so that the resulting sentence has a meaning completely different from the original meaning. In other words, Google Translate is a translator of words, so errors may occur whether the translation is in the form of sentences or full text.

2. DeepL

DeepL is a free multilingual statistical machine translation service provided by the German company DeepL GmbH for translating written texts from one language to another. DeepL is a free translation service that provides instant translation between dozens of different languages. It can translate words, sentences, and web pages between any of our supported language combinations.

a. The advantages of DeepL

DeepL works by searching hundreds of different documents on the Internet and drawing from a variety of sources to use the information's context and provide accurate translations. The result is a document that makes a great effort to get the most accurate translation possible. For example, a language can switch from French to English and then back to French with just one click. Translators are available 24 hours a day, seven days a week, and can be accessed via an internet connection to the website. The strengths of DeepL can be expressed at present as follows:

The first advantage of DeepL is its translation ability. This is essentially the main function of an online translator, especially DeepL English-Indonesia is widely used in Indonesian-English translation activities. However, thanks to DeepL's continued development, Free DeepL will bring many other benefits beyond just being a translator. The second advantage is the online dictionary. Another advantage of DeepL is that it is an online (or sometimes called "Online") dictionary. When a user of this machine translator performs a word-by-word translation, DeepL automatically displays

a selection of translation results for the source word in question in the target language.

Then the third is an online thesaurus. In fact, in addition to being an online translator and dictionary, it can also be useful as a thesaurus or reference to find other word options with similar meanings (synonyms). In addition to various synonyms of the word, the word's usage level is also displayed. The next benefit of DeepL is English spell- checking. In addition to being an online language translator, DeepL needed to check the spelling of words for spelling errors. This is advantageous when checking English spelling. The fifth advantage of DeepL is that it is a tool for learning foreign language pronunciation. For those who want to learn foreign languages, for example, for those who want to learn English for free, including how to pronounce words, using DeepL is suitable.

For this reason, DeepL is a popular choice for home and mobile translation needs. Those who have an Internet connection and can access DeepL through their computer are ready to start working on their translations. Mobile applications for mobile phones and devices are also available, increasing the accessibility of the device. Using DeepL in the search process can help us find more results.

b. The disadvantages of DeepL

Like any piece of technology or application, there are reasons for concern. First of all, it can be too easy to use DeepL instead of learning a language. A person who has access to a translator may not devote the time or effort necessary to fully absorb the language. This can be detrimental, especially when it comes to high school students or those taking classes that may rely too heavily on the device. Additionally, DeepL gives individuals the ability to translate without fully understanding what is being presented to them.

3. Grammar Analysis

Grammatical analysis is the process of examining the structure

and components of sentences in a language to understand how words and phrases are organized and how they function within a sentence. It involves identifying parts of speech, phrases, clauses, and sentence structures to determine how they work together to convey meaning.

In grammatical analysis, Chomsky argues linguists or language learners typically break down sentences into their constituent parts and analyze the relationships between these parts. This analysis helps in understanding the rules and principles that govern the formation of sentences in a language, as well as how meaning is conveyed through the arrangement of words and phrases.

The grammatical analysis is the systematic study and examination of the structure and elements that makeup sentences and utterances in a language. It involves the identification and classification of the different parts of speech, the ways in which these parts are combined, and the rules that govern their arrangement. Chomsky argues the key components of grammatical analysis include Part of speech, Sentence structure, Syntactic roles, and Grammatical rules:

1) Part of Speech

Parts of speech, also known as word classes, are the basic categories that linguists use to classify words based on their function and behavior within a sentence. The main parts of speech in the English language are:

a. Nouns:

Words that name people, places, things, or ideas.

Examples: book, Alice, New York, happiness.

b. Verbs:

Words that express actions, states of being, or occurrences.

Examples: run, is, happened.

c. Adjectives:

Words that describe or modify nouns.

Examples: big, red, happy

d. Adverbs:

Words that modify verbs, adjectives, or other adverbs.

Examples: quickly, very, carefully

e. Pronouns

Words that replace nouns.

Examples: he, she, it, they

f. Prepositions:

Words that show relationships between nouns/pronouns and other words in a sentence.

Examples: on, in, under, with

g. Conjunctions:

Words that join words, phrases, or clauses together.

Examples: and, but, because, if

h. Interjections:

Words that express emotion or emphasize a point.

Examples: oh, wow, hey

These parts of speech are the building blocks of sentence structure, and understanding their functions is crucial for effective communication and language analysis. Grammatical analysis often involves identifying the parts of speech in a sentence and examining how they interact to convey meaning.

2) Sentence Structure

Sentence structure refers to the way in which words are arranged to form complete and meaningful sentences. It involves the identification and analysis of the different grammatical elements that make up a sentence and how they are organized. The main components of sentence structure include:

a. Subject:

The noun or pronoun that the sentence is about, performing the action or being described.

Example: "The dog chased the cat."

b. Predicate:

The part of the sentence that describes the action or state of the

subject.

Example: "The dog chased the cat."

c. Object:

The noun or pronoun that receives the action of the verb.

Example: "The dog chased the cat."

d. Modifier:

Words or phrases that describe or provide additional information about nouns, verbs, or other elements in the sentence.

Example: "The big dog chased the small cat."

e. Clause:

A group of words that contains a subject and a predicate and can function as a sentence or as part of a larger sentence.

Example: "When the sun set, the dog chased the cat."

f. Phrase:

A group of related words that does not contain a subject and a predicate but functions as a single unit within a sentence.

Example: "After the long day" or "running quickly"

Sentences can be classified based on their structure, such as:

- Simple sentence: "The cat meowed."
- Compound sentence: "The cat meowed, and the dog barked."
- Complex sentence: "Although the cat meowed, the dog did not respond."

Understanding sentence structure is essential for effective communication, language learning, and the analysis of written and spoken language. It allows us to identify the relationships between the different elements of a sentence and better comprehend the intended meaning.

3) Syntactic Roles

Syntactic roles, also known as grammatical functions or sentence elements, refer to the specific functions that words, phrases, and clauses play within a sentence. These roles describe the relationship between the different parts of a sentence and contribute

to its overall meaning and structure. The main syntactic roles include:

a. Subject:

The noun or pronoun that performs the action or is described in the sentence.

Example: "The dog chased the cat."

b. Verb:

The word that expresses the action, state, or occurrence in the sentence.

Example: "The dog chased the cat."

c. Object:

The noun or pronoun that receives the action of the verb.

Example: "The dog chased the cat."

d. Complement:

A word or phrase that completes the meaning of the subject or verb.

Example: "The cat is fluffy." (The word "fluffy" is the complement)

e. Modifier:

A word or phrase that describes or provides additional information about another element in the sentence.

Example: "The big dog chased the small cat." (The words "big" and "small" are modifiers)

f. Adverbial:

A word or phrase that modifies a verb, adjective, or another adverb, providing information about time, place, manner, or other circumstances.

Example: "The dog chased the cat quickly." (The word "quickly" is an adverbial)

g. Conjunction:

A word that connects and establishes a relationship between words, phrases, or clauses.

Example: "The dog chased the cat, but the cat escaped." (The word "but" is a conjunction)

Understanding these syntactic roles is crucial for analysing the structure and meaning of sentences, as well as for effective communication and language learning. By identifying the different elements and their functions within a sentence, linguists and

language users can gain insights into the underlying logic and patterns of language.

4) Grammatical Rules

Grammatical rules refer to the set of guidelines and principles that govern the structure and usage of a language. These rules determine how words, phrases, and clauses are correctly arranged and combined to form meaningful and well-formed sentences. Some examples of grammatical rules in the English language include:

- a. Subject-Verb Agreement: The subject and verb in a sentence must agree in number (singular or plural).

Example: "The dog runs." (Singular subject "dog" with singular verb "runs")

Example: "The dogs run." (Plural subject "dogs" with plural verb "run")

- b. Noun-Pronoun Agreement: A pronoun must agree in number, gender, and person with the noun it replaces.

Example: "The girl ate her lunch." (The pronoun "her" agrees with the singular, feminine noun "girl")

- c. Verb Tense: Verbs must be used in the correct tense to accurately convey the timing of an action or event.

Example: "She walks to the park." (Present tense)

Example: "She walked to the park." (Past tense)

- d. Word Order: In English, the typical sentence structure follows the subject-verb-object (SVO) order.

Example: "The cat chased the mouse." (Subject "cat", verb "chased", object "mouse")

- e. Capitalization: Proper nouns, the beginning of sentences, and certain abbreviations must be capitalized.

Example: "John lives in New York City."

- f. Punctuation: Punctuation marks, such as periods, commas, and question marks, are used to structure and clarify the meaning of sentences.

Example: "The cat ran, but the dog chased it."

These grammatical rules are the foundation of a language and are crucial for effective communication, as they ensure that sentences are constructed correctly and convey the intended meaning. Mastering these rules is essential for language learners and writers, as they provide the necessary structure and guidelines for producing well-formed and understandable sentences.

Through grammatical analysis, linguists, language teachers, and learners can gain a deeper understanding of how language works at the structural level. This knowledge is essential for effective communication, language acquisition, translation, and the study of language itself.

Grammatical analysis can involve both descriptive and prescriptive approaches. Descriptive analysis focuses on describing the actual patterns and structures used in natural language, while prescriptive analysis aims to establish and enforce "correct" grammatical rules. Both approaches contribute to the understanding and mastery of language. Overall, grammatical analysis is a fundamental aspect of linguistics and language study, providing insights into the underlying logic and mechanisms that shape human communication.

C. Previous Studies

The validity of the research is ensured when it is supported by existing data literature. This study provided ample feedback from previous research to confirm its validity. This review discusses other studies investigating similar topics that are of great relevance to this study.

Before performing this research, the researcher found several translation search categories. The first category was "**Translation Performance of Google Translate and Deepl in Translating Indonesian Short Stories into English by I Gusti Ayu Mahatma, Agung Putu Gede Budiarta, Ni Wayan Suryani (2024)**". the conclusion of his research is the identification of errors

found; undefined concepts, deleted concepts, and unmodified concepts. Both Google Translate and DeepL still have limitations when translating slang, onomatopoeia, abbreviations, idioms, jargon, and address words. This study supports a comprehensive evaluation of the advantages and disadvantages of different machine translation systems, highlighting that Users can choose the right tool for their language and needs.

The similarities between the previous study and this research are as follows:

1. Object of research: Both examine the performance of translation engines, specifically Google Translate and DeepL.
2. Language: Both involve Indonesian and English in the translation process.
3. Objective: Both studies aim to analyze and compare the quality of translation produced by machine translation.

The differences between the previous study and this research are as follows:

1. Text type: The first study focused on the translation of Indonesian short stories into English. The second study analyzed the translation of article abstracts.
2. Aspects of analysis: The first study analyzed various aspects of translation such as accuracy of meaning, language style, and cultural appropriateness in the context of short stories. The second study specifically conducted a grammatical analysis of the translations.
3. Scope: The first study covers literary and cultural aspects in the translation of short stories. The second study focuses more on technical and grammatical aspects in the translation of scientific texts (article abstracts).
4. Text complexity: short stories generally have a more complex narrative structure and language style. Article abstracts usually have a more standardized structure and use scientific language.

The next research is **Google Translate Vs. DeepL: Analysing Neural Machine Translation Performance Under the Challenge of**

Phraseological Variation by Carlos Manuel Hidalgo (2020), In this context, the NMT systems Google Translate and DeepL have proved to deliver an overall high-quality performance in the detection and establishment of equivalences for idioms with high normalized frequencies such as *tomar el pelo* and *meter la pata*, and their nominal variants *tomadura de pelo* and *metedura de pata*, both in their continuous and discontinuous forms, with a final average of 86% vs. 89%, respectively.

The similarities between the previous study and this research are as follows:

1. Object of research: Both analyze and compare the performance of Google Translate and DeepL.
2. Focus on neural machine translation (NMT): Both studies examined modern NMT systems.
3. Evaluative purpose: Both aimed at assessing the translation quality of the two systems.

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The differences between the previous study and this research are as follows:

1. Focus of analysis: "Google Translate Vs. DeepL: Analyzing Neural Machine Translation Performance Under the Challenge of Phraseological Variation" focuses on handling phraseological variation. "Unraveling Translation Machine" performed a general grammatical analysis on the translation of article abstracts.
2. Linguistic aspects studied: The first study emphasizes phraseology, which includes idioms, collocations and fixed expressions. The second study was broader, covering various aspects of grammar in translation.
3. Text types: The first study used a variety of text types rich in phraseological variation. The second study specifically analyzed the translation of abstracts of scientific articles.
4. Specific challenges: Phraseological studies focus on the specific challenges of translating idiomatic expressions and their variations.

The grammatical studies looked at the general challenges of maintaining grammatical accuracy in the translation of scientific texts.

5. Practical applications: The findings of phraseological studies are more relevant for the translation of general, literary or journalistic texts. The findings of the grammatical study are more applicable to the translation of scientific and academic texts.

The other researcher of machine translation is **Accuracy Unveiled: A Closer Look at Google Translate and DeepL by Bahrudin (2023)**. It can be concluded that DeepL exhibits a higher level of accuracy than Google Translate, especially for European languages. While Google Translate is widely used and works quite well in major languages, DeepL's focus on quality and neural machine translation techniques have positioned it as a reliable choice for achieving more accurate translation.

The similarities between the previous study and this research are as follows:

1. Object of research: Both focus on the comparison of Google Translate and DeepL.
2. General objective: Both studies aim to analyze and compare the performance of the two translation engines.
3. Analytical approach: Both conducted in-depth analysis of the translation results.

The differences between the previous study and this research are as follows:

1. Focus of analysis: "Accuracy Unveiled" focuses on general accuracy, which can include aspects such as meaning, style, and contextual appropriateness. "Unraveling Translation Machine" specifically performs grammatical analysis on translations.
2. Text type: "Accuracy Unveiled" uses various text types for its analysis. "Unraveling Translation Machine" specifically analyzes the translation of article abstracts.
3. Methodology: "Accuracy Unveiled" may use various metrics to measure accuracy. "Unraveling Translation Machine" focuses on grammatical analysis, which may involve identifying and categorizing

grammatical errors.

4. Coverage: "Accuracy Unveiled" may have a wider scope in terms of the types of errors or inaccuracies analyzed. "Unraveling Translation Machine" focuses more on grammatical aspects in the context of scientific texts.

The research "UNRAVELING TRANSLATION MACHINE: GRAMMATICAL ANALYSIS ON TRANSLATION OF ARTICLE ABSTRACT BY GOOGLE TRANSLATE AND DEEPL" is unique compared to other studies. Its main focus on grammatical analysis in the context of the translation of abstracts of scientific articles provides a more technical and specific perspective. In contrast to research on the translation of Indonesian short stories or studies focusing on phraseological variation, this study examines how machine translation handles language structure in a more rigorous academic context. The "unraveling" approach used demonstrates an attempt to understand the internal mechanisms of machine translation, rather than simply assessing its final output. Moreover, the selection of article abstracts as the subject of the study has high practical relevance in the academic world, where the accuracy of abstract translation is crucial for the global dissemination of research.