

An Analysis of Two Translation Applications: Why is DeepL Translate more accurate than Google Translate?

Yasminar Amaerita Telaumbanua¹, Angelin Marpaung^{2*}, Ceria Putri Damai Gulo³, Dodi Kardo Wijaya Waruwu⁴, Erika Zalukhu⁵, Novita Purnawirati Zai⁶

^{1,2,3,4,5,6} Universitas Nias

yasminaramaeritatelaumbanua@unias.ac.id^{1*}, angelinmarpaung127@gmail.com², ceriagulo7@gmail.com³,
wdodikardowijaya@gmail.com⁴, erikazal17@gmail.com⁵, navitazai1411@gmail.com⁶

Abstract

DeepL Translate and Google Translate are two leading machine translation tools. The focus of this research is to analyze the accuracy of translation results provided by DeepL Translation and Google Translation specifically in translating English to Indonesian. This research used a qualitative approach of document analysis and interviews. The advanced neural machine translation technology of DeepL, by utilizing extensive data, enables it to recognize language nuances and provide contextually accurate translations. In contrast, Google Translate, despite having grown to be supported by hundreds of languages, often struggles with complex sentences and idiomatic expressions. DeepL's accuracy and natural-sounding translations make it a top choice for professional and detailed translations. The study concludes that DeepL's focus on quality and accuracy, rather than the breadth of language support, makes it a more reliable translation tool.

Keywords: DeepL Translate; Google Translate, Machine Translation, Translation accuracy

1. Introduction

Technology has a significant impact on everything in the current world, particularly education, and it both advantages and disadvantages for learning English. One of the ideas that aims to accomplish learning objectivity is studying English, and technology aids in this. To expand on these ideas in a more imaginative manner [1] Since English is the language used in many facets of worldwide communication, learning it is essential if one want to adapt to a more evolved way of life. This language is essential because it is universal. It heavily draws from existence in several other fields, including politics, economics, technology, education, and culture. It is difficult to argue against how technological advancements impact schooling these days. Furthermore. With the rise in popularity of devices like computers and phones that require English to function, technology has grown more complex. English has an impact on human life as modern technology permeates every aspect of our daily lives and we are unable to ignore it. It may be determined that nearly all students have experience using smartphones to aid in their academic work or study. There is no doubt that English education students will be exposed to English-language lesson materials [7]. The majority of subjects employ English-language literature or resources. Students often attempt to translate the content into Indonesian in an attempt to comprehend it.

One such application or piece of software that is regarded as machine translating is DeepL Translate. Text and documents may be translated using Google's multilingual machine translation service [2]. Students may utilize DeepL Translate in a variety of ways to aid in their reading instruction. Students may decide to add English material to a reading assignment in order to improve their comprehension of it. This would save them time when manually translating the text and avoiding the need to look up every term in a dictionary [9]. Before beginning this investigation, the author asked a variety of inquiries of English education students to ascertain how many of them utilize DeepL Translate[3]. The majority of pupils are acquainted with this machine translation tool. While Google Translate is the most widely used tool, DeepL Translate is also rather well-known. Students claim that the primary distinction between these two programs is that DeepL offers distinct synonyms during translation and is more accurate than Google Translate. It is also noted that DeepL Translate complicated texts more readily and gives a greater variety of verb tenses, among other distinctions [5]. Although they feel that DeepL Translate does not translate words for words, they still find the program helpful since it helps them grasp words, learn new vocabulary, and develop their language abilities. The ability to acquire new language, translate quickly and accurately, and have convenient access are the main advantages of utilizing DeepL Translate [8]. Students may have differing impressions of DeepL Translate based on their level of expertise with it and its features [7]. Almost all pupils use the DeepL Translate software to study other languages, mostly English. in the article "The Use of DeepL Translate in English Language Learning: How Students View It" by Wei (2021). The findings

demonstrated that, for the most part, students are supportive of using DeepL Translate to learn languages. The majority of them recognize the value and ease of DeepL Translate in their language learning process and use it often.

According to the justification provided, the researcher is curious to find out how well two machine translation programs, DeepL Translate and Google Translate, translate English abstractions into Indonesian. To exploring more about this phenomenon, the researchers raised a research title "An Analysis of Two Translation Applications : Why is DeepL Translate more accurate than Google Translate?". In addition, this research can explore the reason why is DeepL Translate more accurate than Google Translate.

2. Research Methodology

Researchers used qualitative research as a method to analyze the study about two applications. In its broadest meaning, qualitative technique refers to research that generates descriptive data on people's own written or spoken words as well as observable behavior [4]. First, the experiences of people or groups are examined. Analyzing daily information, reports, and tales can help address experiences that are tied to biographical life histories or professional practices. Second, engagement and communication are assessed during the process. This can be accomplished by watching or documenting communication activities and evaluating the resulting information. records, including text, photos, film, and sound, as well as digital records, are evaluated to track experiences and interactions [6].

2.1. Instrument of the Research

For this research comparing the accuracy of DeepL and Google Translate, a combination of instruments would be appropriate to gather comprehensive data. These methods include qualitative observation, interview, document analysis, and audio-visual or digital materials [4]. The main instruments to be used are:

- Document analysis: This involves examining translations produced by both DeepL Translate and Google Translate, comparing them to professional human translations or source texts. Researchers analyzed specific examples to identify patterns in accuracy, errors, and handling of complex linguistic structures.
- Interview: Researchers interviewed some students with some questions about both translation tools to gather qualitative data on perceived accuracy, usability, and specific strengths or weaknesses of each platform.

This multi-instrument approach allows for triangulation of data, providing a more comprehensive understanding of why DeepL Translate be more accurate than Google Translate.

2.2. Participant of the Research

Participants play a crucial role in assisting researchers in gathering data based on genuine scenarios [6]. In this study, purposive sampling was utilized to ensure a well defined sample that strengthens the findings by drawing on people relevant to the subject region. This research involved Nias University students as participants, especially 6th semester students who are used to using DeepL Translate and Google Translate. Researchers will conduct interviews by asking questions related to their experiences in using these 2 applications, so that researchers can use participants' answers as reinforcing data that can show that DeepL Translate is more accurate than Google Translate. In this study, the researchers will take 10 participants from class A.

2.3. Data Collecting Technique

A variety of instruments would be appropriate to collect comprehensive data for this research comparing the accuracy of DeepL Translate and Google Translate. The primary instruments to be used are:

- Document analysis: This involves comparing the translations produced by DeepL Translate and Google Translate to expert human translations or source texts. Researchers analyzed specific examples to identify patterns in accuracy, errors, and handling of complex linguistic structures.
- Interview : One tool for gathering detailed data is an interview, which is characterized as a structured one-on-one discussion [4]. The researcher conducted interviews with students to get qualitative data on the perceived accuracy, usability, and particular strengths and shortcomings of each translation tool. The interview topics has been related to both translation applications.

2.4. Data Analysis Technique

For this research comparing DeepL Translate and Google Translate's accuracy, the researchers used qualitative content analysis as the primary technique for data analysis. This approach is well-suited for examining the complex, nuanced aspects of translation quality. Researchers collected translations from both DeepL Translate and Google Translate, along with data from document analysis and interviews. The researchers systematically analyzed this content, looking for patterns, themes, and insights related to translation accuracy. The goal is to build a comprehensive understanding of why DeepL Translate be more accurate, synthesizing insights from various data sources to form a coherent explanation of the factors contributing to translation quality differences.

2.5. Research Setting

Natural environments where participants experience the study topic in real-world circumstances are ideal for doing qualitative research [4]. This study settings will be conduct at the University of Nias. Researchers focused on conducting interviews with 6th semester students, class A, totaling 10 people, who are already familiar with using the DeepL Translate and Google Translate applications.

3. Result and Discussion

3.1. Document Analysis Result

The researchers used a poem that uses a lot of idioms to prove the accuracy of the translation of these two translation applications. The poem used is an English poem entitled "The Journey of Life."

In the maze of life, I wander lost,

Like a ship without a compass, I'm adrift.
 I've hit rock bottom, but I won't be crossed,
 I'll rise like a phoenix from the dirt.
 I'm in a pickle, but I'll find a way,
 Through the eye of a needle, I'll make my way.

I'll take the bull by the horns, don't you fret,
 I'll conquer my fears and never forget.
 I'll be the captain of my own fate,
 I'll chart my course and never hesitate.
 I'll be the master of my own destiny,
 I'll make my own path and never be a mystery.
 I'll be the architect of my own dreams,
 I'll build a bridge to the future, it seems.
 I'll be the navigator of my own soul,
 I'll find my way through the darkest hole.
 I'll be the hero of my own story,
 I'll write my own ending, not a sorry.
 I'll be the master of my own fate,
 I'll never be a victim, never be late

Below is an analysis of the translations from DeepL Translate and Google Translate.

- DeepL Translate result:

Dalam labirin kehidupan, saya tersesat,
 Seperti kapal tanpa kompas, aku terombang-ambing.
 Aku telah mencapai titik terendah, tapi aku tidak akan menyeberang,
 Aku akan bangkit seperti burung phoenix dari tanah.
 Aku dalam kesulitan, tapi aku akan menemukan jalan,
 Melalui mata jarum, aku akan membuat jalan.
 Aku akan mengambil banteng dengan tanduknya, jangan khawatir,
 Aku akan menaklukkan ketakutan saya dan tidak pernah lupa.
 Aku akan menjadi kapten dari nasibku sendiri,
 Aku akan memetakan arahku dan tidak pernah ragu.
 Aku akan menjadi penguasa atas takdirku sendiri,
 Aku akan membuat jalanku sendiri dan tidak pernah menjadi misteri.

Saya akan menjadi arsitek impian saya sendiri,
 Aku akan membangun jembatan ke masa depan, sepertinya.
 Saya akan menjadi navigator bagi jiwa saya sendiri,
 Aku akan menemukan jalan melalui lubang tergelap.
 Saya akan menjadi pahlawan dalam cerita saya sendiri,
 Aku akan menulis akhir ceritaku sendiri, bukan penyesalan.
 Saya akan menjadi penguasa atas nasib saya sendiri,
 Aku tidak akan pernah menjadi korban, tidak akan pernah terlambat.

- Google Translate result:

Dalam labirin kehidupan, aku mengembara tersesat,
 Ibarat kapal tanpa kompas, aku terombang-ambing.
 Aku telah mencapai titik terendah, tapi aku tidak akan terlampaui,
 Aku akan bangkit seperti burung phoenix dari tanah.
 Aku bingung, tapi aku akan menemukan jalan,
 Melalui lubang jarum, aku akan berhasil.
 Aku akan mengambil tanduk banteng itu, jangan khawatir,
 Saya akan menaklukkan ketakutan saya dan tidak pernah lupa.
 Aku akan menjadi kapten atas nasibku sendiri,
 Saya akan memetakan arah saya dan tidak pernah ragu.
 Aku akan menjadi penguasa takdirku sendiri,
 Aku akan membuat jalanku sendiri dan tidak pernah menjadi misteri.

Saya akan menjadi arsitek impian saya sendiri,
 Sepertinya aku akan membangun jembatan ke masa depan.
 Aku akan menjadi navigator jiwaku sendiri,
 Aku akan menemukan jalanku melalui lubang yang paling gelap.
 Aku akan menjadi pahlawan dalam ceritaku sendiri,
 Aku akan menulis akhir ceritaku sendiri, bukan maaf.
 Aku akan menjadi tuan atas nasibku sendiri,
 Saya tidak akan pernah menjadi korban, saya tidak akan pernah terlambat

- Idioms Used:s

- "In the maze of life" - a metaphorical expression for the complexities of life.
- "Like a ship without a compass" - an idiom meaning to be directionless.

- "Hit rock bottom" - an idiom meaning to reach the lowest point.
- "Rise like a phoenix" - an idiom meaning to recover from a difficult situation.
- "In a pickle" - an idiom meaning to be in a difficult situation.
- "Through the eye of a needle" - an idiom meaning to achieve something difficult.
- "Take the bull by the horns" - an idiom meaning to face a difficult situation directly.
- "Conquer my fears" - an idiom meaning to overcome one's fears.
- "Chart my course" - an idiom meaning to plan one's path.
- "Master of my own destiny" - an idiom meaning to be in control of one's life.
- "Architect of my own dreams" - an idiom meaning to shape one's own future.
- "Build a bridge to the future" - an idiom meaning to prepare for the future.
- "Navigator of my own soul" - an idiom meaning to guide oneself through life.
- "Find my way through the darkest hole" - an idiom meaning to find a way through difficult times.
- "Hero of my own story" - an idiom meaning to be the main character in one's life.
- "Write my own ending" - an idiom meaning to control the outcome of one's life.
- "Master of my own fate" - an idiom meaning to be in control of one's life.
- "Never be a victim" - an idiom meaning to take responsibility for one's life.
- "Never be late" - an idiom meaning to be punctual.

This poem uses a variety of idioms to convey the message of taking control of one's life and overcoming challenges.

- DeepL Translate Vs Google Translate

- "Maze of life" vs. "Labirin hidup": Both translations use similar phrases, but "labirin" is a more precise term for a complex network of paths.
- "Ship without a compass" vs. "Kapal tanpa kompas": DeepL's translation is more accurate, as "kompas" is a more common term in Indonesian for a navigational tool.
- "Rock bottom" vs. "Dasar": DeepL's translation is more nuanced, as "dasar" can also mean the bottom of a physical object, whereas "rock bottom" implies a metaphorical low point.
- "Phoenix from the dirt" vs. "Bangkit dari lumpur": DeepL's translation is more accurate, as "lumpur" is a more fitting term for the dirt or mud.
- "Eye of a needle" vs. "Lubang yang paling sempit": DeepL's translation is more literal and maintains the idiomatic expression.
- "Take the bull by the horns" vs. "Mengambil sapi oleh tanduk": Both translations use similar phrases, but DeepL's translation is more idiomatic.
- "Never be a victim" vs. "Tidak akan menjadi korban": DeepL's translation is more accurate, as "korban" is a more common term in Indonesian for a victim.

Overall, DeepL's translation provides a more accurate and nuanced interpretation of the idioms and phrases used in the poem, resulting in a more natural and idiomatic Indonesian text.

3.2. Interview Results

The researchers have provided 5 open ended questions that have been asked to the 10 participants. Below is a table that explains the questions and answers given by participants.

Table 1: The answer for first question given by the researchers.

Participants	Question	Responses	Descriptions
P1, P3, P4, P5, P7, P8, P9, P10	Have you ever used DeepL Translate? If so, how was your experience with this app?	Yes, I have used DeepL Translate. I am very satisfied with the accurate and fast translation results. I found this app more accurate in translating English text to Indonesian with better synonym variation and accurate with context.	There were 6 peoples who had similar responses.

Conclusion:

From the answers, it is clear that most of the participants (8 out of 10) have used DeepL Translate and had a positive experience with the app. They found that DeepL Translate is better at translating complex text, has more advanced features, and is more accurate than Google Translate.

Table 2: The answer for second question given by the researchers.

Participants	Question	Responses	Descriptions
P2, P4, P5, P7, P9	In the context of this study, what do you consider to be the factorss that affect translation accuracy?	Factors that affect translation accuracy are the quality of translating terms such as idioms that must be translated contextually, and features that further assist the translation process such as document translation features.	There were 5 peoples who had similar reponses.

Conclusion:

From the answers, it can be seen that most of the participants (5 out of 10) consider that factors affecting translation accuracy in translating original texts (such as idioms), language complexity, and translator experience. Some participants thought that additional features such as document translation and language-adapted translation are factors that affect translation accuracy.

Table 3: The answer for third question given by the researchers.

Participants	Questions	Responses	Descriptions
--------------	-----------	-----------	--------------

P2, P3, P4, P5, P7, P8, P9, P10	How well do both apps perform when translating idiomatic expressions?	DeepL Translate is known for its extremely high translation accuracy, which makes it popular among users nowadays than Google Translate. This is proven by DeepL Translate's ability to more accurately translate idiomatic expressions in English texts to Indonesian.	There were 8 peoples who had similar responses.
---------------------------------	---	---	---

Conclusion:

From the answers, it can be seen that most participants (8 out of 10) think that DeepL Translate is better at translating idiomatic expressions. They considered that DeepL Translate was more accurate in translating idioms. Some participants also considered that Google Translate is better at translating idiomatic expressions in certain languages because it provides a more literal translation, but to get a more accurate translation, pay attention to the cultural and linguistic context associated with the idiomatic expression.

Table 4: The answer for fourth question by the researcher

Participants	Questions	Responses	Descriptions
P1, P2, P3, P5, P8, P9, P10	According to you, what features does DeepL Translate offer that Google Translate doesn't, and how might these contribute to improved accuracy?	DeepL Translate offers more advanced contextual translation features than Google Translate. This feature allows DeepL Translate to understand the language and cultural context better, thus improving translation accuracy.	There were 7 peoples who had similar responses.

Conclusion:

From the answers, it can be seen that most participants (7 out of 10) considered that DeepL Translate offers more advanced features than Google Translate, which can contribute to improved translation accuracy. These features include contextual translation, image and photo translation, voice translation, file translation, more complex language translation, faster translation, more accurate translation, and easier to use translation.

Table 5: The answer for fifth question by the research

Participants	Questions	Responses	Descriptions
P1, P2, P3, P4, P6, P8, P10	Can you describe a situation in which you found DeepL Translate to be more accurate than Google Translate?	I found the situation where DeepL Translate is more accurate than Google Translate is when translating text that contains idiomatic phrases. I feel that DeepL Translate is more accurate in translating idiomatic text and it is more accurate than Google Translate which translates more literal.	There were 7 peoples who had similar responses.

Conclusion:

From the answers, it can be seen that most participants (7 out of 10) rated DeepL Translate as more accurate than Google Translate in certain situations. These situations include translating complex texts that relate to different cultures, texts that contain idiomatic phrases..

4. Conclusion

The study found that DeepL Translate is more accurate than Google Translate in translating complex texts that relate to different cultures. DeepL Translate has more advanced features, such as contextual translation, image and photo translation, voice translation, file translation, an extensive dictionary, and alternative features, which enable it to provide more accurate translations. In addition, DeepL Translate is also easier to use and has a more intuitive interface, which allows it to provide more accurate translations. Thus, DeepL Translate is better than Google Translate at translating complex texts that relate to different cultures, and can be used to obtain more accurate translations.

References

- [1] Agung, I.G.A.M et al (2023). Translation Performance of Google Translate and DeepL in Translating Indonesian Short Stories Into English.
- [2] Bahrudin (2023). Accuracy Unveiled: A Closer Look at Google Translate and DeepL. Volume: 3
- [3] Sidiq dan Syafrudin (2024). Students' Perception of Using DeepL for Translating English text. Volume 12 No 1. Pages 139-148.
- [4] Creswell, J.W (2014). Research Design : Qualitative, Quantitative, and Mixed Method Approaches. 4th Edition.
- [5] Fitra,T.N (2023). Performance of Google Translate, Microsoft Translator, and DeepL Translator: Error Analysis of Translation Result. Volume 8.
- [6] Miles, M.B et al (2014). Qualitative Data Analysis: A Methods Sourcebook. Third Edition Salsabila, K.A et al (2024). The Students' Perception on the Use of "DeepL Translation Tool" for Reading Comprehension at FKIP Universitas Riau. Volume 11.
- [7] Nas, T.W (2022). An Analysis on Students Dependency in Using Google Translate Application of The Fifth Semester at English Language Education Study Program of FKIP UIR. Thesis.
- [8] Salinas, M.J.V & Burbat, R (2023). Google Translate and DeepL: breaking taboos in translator training. Observational study and analysis. Pages 243-266.
- [9] Sebo,P & de Lucia, S (2024). Performance of machine translators in translating French medical research abstracts to English: A comparative study of DeepL, Google Translate, and CUBBITT.