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Comparative Analysis of Translation Errors in *F The Prom* Subtitles by YouTube and DeepL

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Abstract- Accurate subtitle translation is essential in films, as it influences viewers' comprehension and connection with cultural nuances. This study addresses the challenges in automated subtitle translation, focusing on translation errors in idiomatic expressions, abbreviations, slang, onomatopoeia, and address terms. This research addresses a gap in the field by directly comparing the two automated translation tools using Koponen's (2010) error classification theory, highlighting their limitations in handling idiomatic expressions and cultural nuances, thereby providing insights necessary for enhancing automated translation algorithms. The methodology applied is descriptive qualitative. This study evaluates and compares translation errors in subtitles generated by YouTube Automated Translation and DeepL for *F The Prom* movie, highlighting that both systems have significant limitations in accurately translating idiomatic expressions, slang, and cultural nuances. YouTube often misses culturally specific terms, while DeepL struggles with idioms and slang, indicating a critical need to enhance translation algorithms to improve accuracy and the viewing experience, particularly for non-native speakers.

Keywords: Translation Error, Subtitles, YouTube, DeepL

I. INTRODUCTION

In the digital age, worldwide multimedia content consumption has skyrocketed, with films becoming a primary source of entertainment and cultural interaction. Films are not only popular for entertainment, but they can also be used to learn about different cultures. This change is especially noticeable in many countries, including Indonesia, where films frequently outsell books in popularity. According to the Central Statistics Agency's (BPS) 2018 survey statistics, only 15.35% of respondents prefer reading, while 93.21% prefer watching. This data shows that watching, whether through television, videos, or other audiovisual media, is far more prevalent than reading in modern society. This considerable preference shift underscores the increasing importance of accurate subtitle translation, as viewers often rely on subtitles to understand cultural nuances and dialogues in films that are not in their native language. As the consumption of visual media grows, the demand for effective translation becomes crucial to ensure that audiences fully grasp the intended messages and cultural context conveyed in these films. This shift suggests that Indonesians' habits of consuming information and entertainment are moving toward more visual and audiovisual media.

As demand for accessible foreign films increases, subtitles have become essential for bridging language barriers. In Indonesia, English-language films frequently include Indonesian subtitles to appeal to local

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audiences(Asrima & Nur, 2023).This method emphasizes the relevance of subtitles in making films more accessible and interesting in multiple languages. To accommodate this need, internet sites such as YouTube have implemented automated translation technology, providing subtitles in a variety of languages to expand their reach. (Qadi, 2024)describes YouTube's automated translation as using speech recognition technology to generate automatic subtitles, which improves video accessibility. Similarly, (Kamaluddin et al., 2024)highlight that technologies such as DeepL have grown in popularity due to their accuracy and natural translation capabilities.

Nevertheless, increased dependence on automated translation systems raises concerns, particularly about the accuracy and contextual relevance of translated subtitles. Translation errors can lead to misconceptions and a poor viewing experience, particularly for non-native speakers. This research tries to address these concerns by studying the translation faults in subtitles provided by YouTube Automated Translation and DeepL, focusing on how these errors effect the comprehension and overall experience of the viewers.

However, the subtitling process is complex and includes consideration of a variety of characteristics such as slang, idioms, abbreviations, onomatopoeia, and address terms. Accurate translation of these aspects is critical to maintaining the intended message and avoiding misconceptions. This complexity supports the position of (Nugroho et al., 2024)who believe that translation has long been an important component of media communication, promoting relationships between languages and cultures. As automatic translation technologies progress, tools such as YouTube Auto-Translation and DeepL play an important role in generating subtitles. To systematically evaluate the quality of these translations, this study employs Koponen's (2010) theory, which categorizes translation errors based on semantic content accuracy. Koponen's framework is critical for identifying and comprehending the specific errors made by these automated techniques, particularly in terms of collecting semantic nuances in the source text.

Previous studies on related problems have been done by a variety of researchers, such as (Haque & Rini, 2023), (Camelia & Sri Wahyuningsih, 2023), and (Prasetio & Neneng, 2023). All of these studies look at errors made throughout the translation process from English to Indonesian in movie subtitles generated by YouTube Automated Translation. Furthermore, (Fitria, 2023)and (Bunga & Katemba, 2024)offer further pertinent studies. In their comparison study of DeepL and other translation technologies, (Bunga & Katemba, 2024)evaluate how Indonesian Adventist university students in the English Education and Philosophy departments feel about using DeepL and Google Translate. Meanwhile, (Fitria, 2023) uses DeepL, Microsoft Translator, and Google Translate to simulate and analyze translation problems in abstracts from Indonesian to English. Despite these studies, there is still a gap in research that specifically compares the translation quality between YouTube Auto-Translate and DeepL for complex linguistic features in film subtitles. No prior research has comprehensively evaluated how these tools handle slang, idioms, abbreviations, onomatopoeia, and address terms in movie dialogue, nor has there been a detailed examination of the impact of such errors on non-native viewers' comprehension and viewing experience. This study aims to fill this gap by comparing the errors that YouTube Auto-Translate and DeepL make in the subtitles for the film *F The Prom*, offering new insights into the advantages and limitations of each translation tool.

By analyzing these errors, this research seeks to understand how well the tools perform in providing precise and contextually relevant subtitles. The findings will provide insights into the translation errors made by these technologies and their effects on the viewing experiences of non-native speakers. This research is crucial because errors in subtitles generated by technologies such as DeepL and YouTube Automated Translation can have a major influence on viewers' comprehension and enjoyment of films. Subtitles provide as a link between the film's language and viewers who do not speak it, therefore translation errors can change the film's original meaning and confuse the audience. Inaccurate subtitles, for example, can cause misreading of critical conversation or emotional nuances, breaking the plot and diminishing character connection. Furthermore, inadequate subtitles can degrade the viewing experience, annoy viewers, and impede the learning process for people who use subtitles to learn a language. As a result, comparing translation accuracy among these technologies is critical for improving subtitle quality, comprehension, and the overall viewing

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experience.

Subsequently, (Koponen, 2010) theory of translation error categories was used to examine translation errors. Koponen's theory focuses on evaluating translation quality, particularly semantic content accuracy. This theory focuses on error analysis to uncover many sorts of machine translation problems, particularly semantic component mismatches (specific concepts and relationships) between source and target texts. By analyzing these errors, the theory serves as a starting point for establishing criteria to evaluate translation quality. In the context of subtitles, this theory can help identify inaccuracies and improve the overall quality of translated content. The following are the six distinct categories of translation errors identified by Koponen's theory:

1) Omitted Concept, a notion that is present in the source text (ST) but not expressed in the target text (TT). It is common for important meaning or context to be lost when a notion from the source text is not well communicated in the target language. This can result in miscommunication or incomplete communication.
2) Added Concept, a notion that appears in the target text (TT) but not in the source test (ST) is referred to as an added concept. Concepts that are absent from the source text that are added to the target text may bring new meaning to the message, which may result in misunderstandings of the information that is communicated.
3) Untranslated Concept, refers to source language (SL) terms that occur in the target text (TT). The existence of untranslated concepts in the target text might result in a partial translation and potential confusion for the target audience since important information from the source text may be missing or unclear.
4) Mistranslated Concept, described as a target text (TT) concept with the incorrect interpretation in the context of the source text (ST). Mistranslated concepts can lead to miscommunication or misunderstanding because the target text erroneously represents the intended meaning of the source material.
5) Substituted Concept, described as a target text (TT) concept that, while not a direct lexical equivalent of the source text (ST), can be considered an acceptable replacement in the current context. While substituted concepts may provide contextually appropriate replacements, they can occasionally lead to a departure from the original meaning.
6) Explicitated Concept, defined as a target text (TT) concept that openly states information that was previously implicit in the source text (ST) but adds no new information. This method can clarify the intended meaning for the target audience, but it may also change the nuance of the source material.

II. METHODS

This study used a descriptive qualitative approach to evaluate translation faults in the film *F The Prom*. According to (Creswell & Creswell, 2018), qualitative approaches use a variety of data types, including interviews, observations, documents, and audiovisual sources. This approach is particularly suitable for this study as it enables a comprehensive analysis of translation quality, allowing for nuanced insights into the subtleties of language and translation practices. By focusing on qualitative data, this research can capture the complexities of translation errors, particularly in the context of idiomatic expressions, slang, and cultural nuances, thereby providing a deeper understanding of how these factors impact viewer comprehension and the overall quality of automated subtitle translation. A thematic analysis was used in this work to systematically define and describe translation issues, with a particular emphasis on errors observed in subtitles generated by automated translation systems such as YouTube Auto-Translate and DeepL Translator. Thematic analysis identifies and examines recurring themes related to translation errors, such as issues with abbreviations, onomatopoeia, slang words, and address terms, providing a structured framework for understanding how these errors affect subtitle accuracy and quality.

The film *F The Prom*, directed by Benny Fine and produced by Fine Brothers Entertainment in 2017, served as the study's major data source. The film was chosen for its rich and energetic dialogue, which incorporates a number of difficult linguistic aspects such as abbreviations, idiomatic idioms, and puns. *F The Prom* not only tells a captivating and colorful story, but it also has a high level of grammatical complexity, which creates a substantial translation issue. The film's use of uncommon vocabulary and distinct slang makes it an excellent case study for examining how machine

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translation techniques handle complex linguistic characteristics.

Ethical Considerations: The use of film material from *F The Prom* in this study takes ethical considerations into account, especially regarding copyright and permission to use subtitles for research purposes. While the subtitles analyzed were generated by automated translation systems and are not official translations, this study respects intellectual property rights and utilizes the material solely for academic purposes, aiming to enhance understanding of the quality and limitations of automated translation tools. All data used are not intended for commercial distribution but are employed to support the academic inquiry in this research.

The data was collected using the following steps: (1) The researchers watched the entire film *F The Prom* to comprehend its narrative and context; (2) dialogues from the film in English (source language, SL) were transcribed to provide a written form for detailed analysis; (3) subtitles translated from English to Indonesian (target language, TL) were obtained and carefully noted; and (4) English subtitles (SL) and Indonesian subtitles (TL) were collected for further analysis. Following the identification of discrepancies and errors, the analysis procedure involved categorizing the errors methodically using Koponen's six categories of translation errors: omitted concept, added concept, untranslated concept, mistranslated concept, substituted concep,t and explicitated concept. For example, if a subtitle includes a phrase from the source language that is not translated into the target language, such as a cultural reference or a specialist term that stays in its original form, it is characterized as an untranslated Concept. This issue might lead to a partial translation and confusion for the target audience because important information from the source text may be absent or unclear. Such an untranslated concept might detract from the viewer's understanding and involvement with the film, emphasizing the significance of precise and comprehensive translation.

The data analysis process consisted of three key steps: (1) While watching the film, the researcher observed the subtitles generated by YouTube Auto-Translate, noting any translation errors; (2) each identified error was then retranslated using DeepL, allowing for a comparison of the DeepL translation and the original YouTube translation; and (3) these translations were analyzed by classifying each error according to Koponen's six types of translation errors. This approach, which used the YouTube translations as a baseline, allowed for a thorough evaluation of the differences in translation quality between the two tools, ultimately leading to conclusions about the translation tools' accuracy and the quality of the Indonesian subtitles in comparison to the original English.

III. RESULT AND DISCUSSION

The analysis revealed that the translation of F The Prom movie contained several types of errors. The identified translation errors include untranslated, and mistranslated concepts. Both YouTube automated translate and Deep L faced challenges when translating idiomatic expressions, abbreviations, slang words, onomatopoeia, and address terms. This section will delve into each type of error, examining how these inaccuracies affect the overall comprehension and viewing experience for audiences. The analysis aims to highlight the implications of these translation errors, offering insights into the challenges of automated translation in capturing cultural nuances.

An Error Analysis of YouTube Auto-Translate and Deep L in Translating Idiomatic Expressions

Figure 1: Idiomatic Expressions

Figure 1 illustrates the translations of the idiomatic expression "You're a smart cookie," highlighting how each translation tool interprets the phrase differently.

Data 1 : Comparison of Translation

Source Language (SL)	:	**You're a smart cookie.**
Automated Translator (AT)	:	**Anda adalah kue yang cerdas.**

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Deep L Translate (DT)	:	**Anda adalah cookie yang cerdas?**

In Data 1, the phrase "you're a smart cookie" is an idiomatic expression that describes a person's intelligence and capacity to make sensible decisions. According to Koponen's theory, both translation technologies failed to accurately portray the idiomatic expression in question. YouTube's automated translation machine translated the statement as "Anda adalah kue yang cerdas," which is a literal translation that not only sounds odd but also entirely misses the intended colloquialism. This translation demonstrates a misunderstanding of the cultural and contextual nuances required to effectively interpret common idioms. On the other hand, DeepL Translate produced the translation "Anda adalah cookie yang cerdas," which keeps the English word "cookie" but fails to communicate the original phrase's idiomatic meaning. Although using the English term "cookie" may make the translation more familiar to English speakers, it fails to capture the meaning of the expression. The intended meaning, "Anda adalah orang yang cerdas," is not adequately conveyed by any tool. Both translations fall short of conveying the colloquial sense.

Neither tool was successful in conveying the intended message, which should have been translated as "Anda adalah orang yang cerdas." The failure of both technologies to correctly translate the phrase demonstrates the limitations of automated translation when dealing with culturally distinctive terms. This emphasizes the necessity of cultural nuances in translation, notably for idiomatic expressions. Misinterpretations like these can have a substantial impact on the viewer's understanding and entire experience, particularly for non-native speakers. For example, when non-native viewers come across a literal translation like "Anda adalah kue yang cerdas," they may become confused because the word does not make sense in their cultural context. They may attempt to interpret a literal meaning that does not exist, resulting in misunderstandings about the characterization or speech depicted in the film. In such circumstances, not only is the idiomatic meaning lost, but also the emotional context and character intent in the story, which can eventually reduce the quality of the viewing experience and the viewer's grasp of the entire narrative.

An Error Analysis of YouTube Auto-Translate and Deep L in Translating Abbreviations

Figure 2: Abbreviations

Figure 2 illustrates the translation of the abbreviation "IDK" and its surrounding context, showcasing the differences in how each tool interprets the expression.

Data 2 : Comparison of Translation

Source Language (SL)	:	**IDK**. Well, what about… this one?
Automated Translator (AT)	:	**IDK**. Nah, bagaimana dengan yang ini?
Deep L Translate (DT)	:	Tidak tahu. Nah, bagaimana dengan... yang satu ini?

In Data 2, there is a noticeable discrepancy between how YouTube Automated Translation and DeepL handle the abbreviation "IDK." YouTube Automated Translation does not translate "IDK," which might lead to ambiguity and misunderstanding for viewers who are unfamiliar with the abbreviation. According to Koponen's theory, this omission belongs to the category of untranslated concepts, whereby failing to convert an abbreviation into its full form results in a lack of clarity about the speaker's intended meaning. In contrast, DeepL translates "IDK" as "tidak tahu," and accurately delivers the intended message of "I don't know" in Indonesian. This translation effectively removes uncertainty by offering a clear and obvious understanding of the abbreviation. DeepL improves comprehension by translating "IDK" into its full form, ensuring that the viewer understands the speaker's uncertainty about the topic.

Such translation errors have a substantial impact on the viewing experience, especially for non-native speakers who may be unfamiliar with English abbreviations. The correct translation of

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abbreviations is critical for retaining clarity and ensuring that the viewer understands the intended meaning. DeepL's approach to translating "IDK" shows a more effective use of abbreviations, resulting in a more logical and understandable subtitle for the audience.

An Error Analysis of YouTube Auto-Translate and Deep L in Translating Slang Words

Figure 3: Slang Words

Figure 3 illustrates the translation of the slang term "on fleek" in the context of a casual conversation, showing how each translation tool handles slang expressions.

Data 3

Source Language (SL)	:	Did you guys see Maddy's eyebrows from last week? Oh! **On fleek.**
Automated Translator (AT)	:	Apakah kalian melihat alis Maddy akhir pekan lalu? Oh! Dengan cepat.
Deep L Translate (DT)	:	Apakah kalian melihat alis Maddy dari minggu lalu? Oh! Sekilas.

Data 3 shows that Automated Translator (AT) and DeepL Translate (DT) provide significantly different translation results when dealing with the slang word "on fleek." This word, which is typically used to express something that appears particularly beautiful or trendy, is critical in conveying the speaker's enthusiasm and admiration. The Automated Translator (AT) renders "on fleek" as "dengan cepat" (quickly), which is an inappropriate translation in this context. This translation is incorrect because it does not express the positive rating meant by "on fleek," which may cause misunderstanding and loss of intended meaning. DeepL Translate, on the other hand, renders "on fleek" as "sekilas" (glance). Although this is not the precise translation, it does reflect the evaluative part of the term. However, "sekilas" fails to capture the appreciation and adoration that "on fleek" is intended to represent, resulting in a translation that is still not totally effective in expressing the intended message.

These translation errors can have a major impact on viewer comprehension, especially among non-native speakers. The wrong translation of slang can conceal the original spirit and excitement, resulting in misunderstandings or a poor viewing experience. Non-native viewers may not be familiar with such slang, so failure to appropriately translate this terminology can hamper their ability to completely appreciate the speaker's intent .

An Error Analysis of YouTube Auto-Translate and Deep L in Translating Onomatopoeia

Figure 4: Onomatopoeia

Figure 4 illustrates the translation of the onomatopoeia "ugh" and its integration within a statement expressing dissatisfaction.

Data 4

Source Language (SL)	:	**Ugh**! Art is boring!
Automated Translator (AT)	:	**Ugh**! Seni itu membosankan!.
Deep L Translate (DT)	:	**Ugh**! Seni itu membosankan!

The term "ugh" in Data 4 is an example of onomatopoeia, which is a language element that mimics natural sounds to convey specific emotions such as disgust, disapproval, or hesitancy. The onomatopoeia "ugh" is frequently used to indicate a visceral reaction to something unpleasant or uncomfortable. In the Indonesian language, "ugh" can be rendered as "aduh," which likewise expresses annoyance, disappointment, or discomfort. "Aduh" is a

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typical Indonesian exclamation that conveys a comparable emotional response to "ugh," expressing a reaction to anything annoying or unpleasant. Both the YouTube Automated Translator and DeepL Translate were unable to catch the onomatopoeic aspect of "ugh," resulting in a translation that just reproduces the literal meaning without communicating the underlying feeling. This omission demonstrates key limitations in automated translation methods, which struggle to handle delicate linguistic elements like onomatopoeia.

The failure to accurately translate this element detracts from the overall viewing experience by reducing the emotional effect intended by the original text. Non-native speakers may miss the intended sentiment and misinterpret the speaker's genuine reaction due to a lack of such subtleties. Furthermore, the failure to translate such subtle statements represents a more general challenge with automatic translation.

An Error Analysis of YouTube Auto-Translate and Deep L in Translating Address Terms

Figure 5 illustrates the translation of the address term "City," demonstrating the different approaches taken by each translation tool

Data 5

Source Language (SL)	:	**Good morning, City.**
Automated Translator (AT)	:	**Selamat pagi, Kota.**
Deep L Translate (DT)	:	**Selamat pagi, City.**

In Data 5, the phrase "Good morning, City" is an English greeting said to a woman named "City." The Automated Translator (AT) renders it as "Selamat pagi, Kota," reading "City" as the Indonesian noun "kota" rather than a human name. This issue highlights the Automated Translator's (AT) incapacity to recognize the specific context, particularly when address words are utilized as personal names. This can have a considerable impact on the viewer's experience, especially for non-native speakers who may become confused or misunderstood if the context of a personal name is not accurately recognized. In these cases, employing "Kota" instead of "City" may result in a loss of intended meaning and reduce communication clarity.

DeepL Translate (DT), on the other hand, correctly translates the phrase as "Selamat pagi, City," identifying "City" as a human name and keeping its original form in the process. This demonstrates DeepL Translate's improved capacity to recognize and effectively translate distinctive address words, such as personal names. Thus, DeepL Translate demonstrates a greater knowledge of cultural subtleties and context in translating, which is critical for keeping accurate meaning and preventing misunderstandings. Failure to correctly translate these aspects can result in a loss of meaning and a less gratifying experience for viewers, particularly those unfamiliar with the source language. As a result, it is critical to incorporate cultural and contextual variables in translation to promote successful communication and proper comprehension among viewers from various backgrounds.

IV. CONCLUSION

This study aimed to evaluate and compare the translation errors found in subtitles generated by YouTube Automated Translation and DeepL for the film The Prom. The analysis specifically focused on errors related to idiomatic expressions, abbreviations, slang words, onomatopoeia, and address terms, which are critical for preserving the original meaning and cultural nuances of the source language.

Key findings of this study include:

1) Translation Limitations: While both translation systems have advantages, they also exhibit significant limitations. For instance, YouTube Automated Translation frequently misses or inaccurately translates culturally specific terms. A notable example is its translation of the idiom "you're a smart cookie" as "Anda adalah kue yang cerdas," which is a literal translation that entirely misses the idiomatic connotation. Additionally, the system's failure to interpret the abbreviation "IDK" could confuse viewers unfamiliar with the phrase.
2) Contextual Understanding: DeepL

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demonstrated a stronger understanding of some contextual nuances, accurately translating abbreviations such as "IDK" into "tidak tahu." However, it fell short in translating idiomatic expressions and slang, as seen in its translations of "you're a smart cookie" and "on fleek."

3) Challenges with Address Phrases and Onomatopoeia: Both systems struggled with translating address phrases and onomatopoeia. For instance, YouTube's translation of "Good morning, City" as "Selamat pagi, Kota" misinterpreted "City" as a common noun rather than a personal name, which could lead to confusion. Conversely, DeepL retained the word "City" in its translation, preserving the intended connotation.

These inaccuracies significantly impact the viewing experience, especially for non-native speakers, as they can lead to misunderstandings and diminish appreciation for the film's storyline and character development. This study underscores the necessity of incorporating cultural and contextual factors into translation algorithms to enhance accuracy and ensure effective communication.

Future research should focus on improving translation technology's ability to handle idiomatic expressions, slang, onomatopoeia, and address terms. Enhancing these elements may result in fewer translation errors and a better overall viewing experience. Furthermore, investigating how different translation systems address these challenges will provide valuable insights into their effectiveness and areas for improvement.

In conclusion, while advances in automated translation technology are essential, understanding and addressing current limitations is crucial for producing more accurate and meaningful translations. This study emphasizes the importance of ongoing improvement in translation techniques to better serve diverse audiences and enhance their viewing experiences.

REFERENCES

Asrima, A., & Nur, S. (2023). SUBTITLING STRATEGIES FROM ENGLISH TO INDONESIAN IN THE IMITATION GAME MOVIE BY LEBAH GANTENG. Leksema: Jurnal Bahasa Dan Sastra, 8(1), 67–78. https://doi.org/10.22515/ljbs.v8i1.6452

Bunga, E. L. M., & Katemba, C. V. (2024). COMPARING TRANSLATION QUALITY: GOOGLE TRANSLATE VS DEEPL FOR FOREIGN LANGUAGE TO ENGLISH. EDUSAINTEK: Jurnal Pendidikan, Sains Dan Teknologi, 11(3), 1147–1171. https://doi.org/10.47668/edusaintek.v11i3.1264

Camelia, & Sri Wahyuningsih, N. (2023). AN ERROR ANALYSIS OF ENGLISH-INDONESIAN SUBTITLE TRANSLATION IN AVENGERS: ENDGAME. Jurnal Bahasa Asing LIA, 04(01), 12–32.

Creswell, J. W., & Creswell, J. D. (2018). Research Design: Qualitative, Quantitative, and Mixed Methods Approaches (H. Salmon, C. Neve, D. C. Felts, & A. Marks, Eds.; Fifth). SAGE Publications Ltd.

Fitria, T. N. (2023). Performance of Google Translate, Microsoft Translator, and DeepL Translator: Error Analysis of Translation Result. Al-Lisan, 8(2), 115–138. https://doi.org/10.30603/al.v8i2.3442

Haque, A., & Rini, H. C. (2023). Translation Errors in Subtitle of the Movie Joker 2019 on Netflix. Humanitatis : Journal of Language and Literature, 9(2), 421–432. https://doi.org/10.30812/humanitatis.v9i2.2617

Kamaluddin, M. I., Rasyid, Moch. W. K., Abqoriyyah, F. H., & Saehu, A. (2024). Accuracy Analysis of DeepL: Breakthroughs in Machine Translation Technology. Journal of English Education Forum (JEEF), 4(2), 122–126. https://doi.org/10.29303/jeef.v4i2.681

Koponen, M. (2010). Assessing Machine Translation Quality with Error Analysis (Vol. 4).

Nugroho, M. A. B., Agustiana, V., & Budi, F. F. K. (2024). TRANSLATION TECHNIQUES OF RACIAL SLURS IN THE MOVIE “42” SUBTITLES. Leksema: Jurnal Bahasa Dan Sastra, 9(1), 47–57. https://doi.org/10.22515/ljbs.v9i1.8619

Prasetio, N., & Neneng, S. W. (2023). An Analysis of the Error Translation in Movie Trailers by Youtube Auto-Translate. 2(1). https://doi.org/10.53276/.v2i2.81

Qadi, M. (2024). English-Arabic Automated Subtitling in Youtube: Problems and Possible Solutions. https://doi.org/10.13140/RG.2.2.25208.46081.