IDEAS

Journal on Language Teaching and Learning, Linguistics and Literature

ISSN 2338-4778 (Print)
ISSN 2548-4192 (Online)

Volume 14, Number 2, December 2026
pp. 8390 - 8412

Copyright © 2026 The Author
IDEAS is licensed under CC-BY-SA 4.0 License



Issued by English study program of UIN Palopo

Translation Quality Assessment in Conventional and AI-Assisted Practices: Evidence from EFL Student Translators

Muhammad Zaki Pahrul Hadi[1], Issy Yuliasri[2], Hendi Pratama[3]

[1,2,3]Department of Language Education, Faculty of Languages and Arts,
Universitas Negeri Semarang, Indonesia

Article Info

Received: 2026-10-26
Revised: 2026-11-06
Accepted: 2026-11-06

Keywords:
AI-assisted translation;
EFL learners;
student translators;
traditional translation;
translation quality.

DOI:
10.24256/ideas. v14i2. 13070

Corresponding Author:
Muhammad Zaki Pahrul Hadi
zakipahrul@universitasbumigora.ac.id
Department of Language Education,
Faculty of Languages and Arts,
Universitas Negeri Semarang,
Indonesia

Abstract

The emergence of artificial intelligence technology has changed translation techniques in the English as a Foreign Language (EFL) learning, particularly through ChatGPT, Google Translate and DeepL. The aim of this study was to find the differences in the translation quality of EFL students when translating texts without AI support and with it, and to find out how far AI can help support the process of academic translation. This study employed qualitative descriptive design with 10 students of the sixth semester in the English Literature Study Program at Universitas Bumigora West Nusa Tenggara. Data was acquired via two translation tasks, one using the traditional way, and the other using AI aid. Larson's translation quality metrics were then used to assess the data. The results indicated that both strategies yielded relatively satisfactory translations. However, AI assisted translation scored higher in all respects. The best score in category 4 earned an overall score of 78.6% in the traditional way, with an accuracy of 82.9%, clarity of 78.6%, and naturalness of 74.3%. Meanwhile, the AI-assisted translation obtained an overall score of 83.33%, with an accuracy of 87.14%, clarity of 82.86% and naturalness of 80.0%. The results showed that the AI-assisted condition obtained higher observed scores than the conventional condition across accuracy, clarity, and naturalness. However, these differences should be interpreted cautiously because the two tasks were not fully equivalent and the AI-assisted task followed the conventional task. The findings therefore indicate an observed difference in translation quality rather than a definitive causal effect of AI assistance. These findings suggest that AI-assisted translation may serve as a useful learning resource when accompanied by critical evaluation and human post-editing.

1. Introduction

In recent years the rapid development of digital technology has changed the way language learners interact with the texts, reach academic goals and improve their linguistic skills. One of the major developments is the rising use of artificial intelligence (AI) technologies, especially AI-based translation tools, in the teaching and learning of English as a Foreign Language (EFL) students. (Ayyaz, 2025; Boonmoh & Kulavichian, n.d.). These tools are widely used not only for comprehension but also for producing translations more quickly and with fewer surface-level errors. This widespread adoption signals a major shift in how translation activities are performed in educational settings (Belhassen et al., 2025; Dinh, 2025; Zouhar et al., 2025).

Despite the popularity of AI-assisted translation, there are concerns that it may have an impact on the development of translation skills in EFL learners. Traditional translation methods are expected to make students deeply analyse linguistic structures, semantic linkages and cultural intricacies (Weda, 2014). Nevertheless, the use of AI-supported techniques may impair cognitive engagement by giving rapid results, thereby restricting opportunities for meaningful language processing (Hadi et al., 2024; Moulavinafchi et al., 2025a; Yuxiu, 2024). This poses a pedagogical dilemma: AI technology might facilitate efficiency and accuracy but the long-term consequences for learners' translation abilities remain unknown. This problem highlights the importance of a study to investigate the quality differential between the traditional and the AI-supported translation approaches, especially for EFL students who are trying to enhance their basic linguistic and analytical skills.

This study is important in regard to Larson (1997) meaning-based theory of translation which states that translation is the accurate, clear and natural conveyance of meaning from source language (SL) to target language (TL). Larson emphasises that successful translation is not only a matter of converting from one language to another, but also involves understanding the semantic structures, choosing the most appropriate lexical and grammatical equivalents, and producing a text that reads well in the target language (Larson, 1997; Sayadani et al., 2019).

Accuracy is the ability to reproduce the content and spirit of the original text exactly in its own terms, without distortion or omission. The clarity relates to the readability and coherence of the ideas expressed in the translated text so that the message can be easily understood by the intended audience (Al Farisi, 2018). Naturalness is how natural the translation sounds like a natural use of language, without awkward wording, word-for-word translations, or the structure of the source language (Hadi et al., 2025; Yuliasri et al., 2025).

These three core ideas offer important questions about the use of AI in translation. AI techniques, neural machine translation systems for instance, try to emulate human translation patterns; nevertheless, their coherence with regard to Larson's criteria of meaning-based translation is questionable. On the surface, machine-translated output may be accurate in terms of phrase structure and terminology, but typically lacks semantic depth, pragmatic appropriateness and stylistic fluidity (Lin & Chien, 2009; Way, 2018; Wu, 2023). In addition, there can be ambiguity when AI misinterprets possibly ambiguous structures or doesn't understand the intended discourse coherence that the author has constructed (Li et al., 2025; Lysova et al., 2026; Otaif, 2026).

ISSN 2338-4778 (Print)
ISSN 2548-4192 (Online)

These problems are even more serious for EFL learners. Even while AI systems can provide a first translation that looks to be accurate, it is up to learners to discover deficiencies, enhance uncomfortable wording, and ensure clarity through good post-editing approaches (Algaraady & Mahyoob, 2025; Karasimos, 2025; Moulavinafchi et al., 2025). This presents a major educational question: how far are EFL students linguistically conscious and competent in editing to guarantee that AI-assisted output meets the requirements of accuracy, clarity, and naturalness set by Larson? Moreover, it is not clear if the use of AI tools helps or hinders learners in developing these essential translation skills.

In previous studies, the quality of translation has been studied from several aspects. The quality of a translation is assessed based on linguistic and extralinguistic factors, including correctness, context, purpose, and audience (Castilho et al., 2018). However, their research is primarily theoretical and does not take into account the translation practices of students. Meyer (2024) highlights the importance of AI in quality assurance to increase the quality of translation using neural machine translation, automated quality assurance and feedback. However, the present study pays more attention to the translation industry than to students' use of AI tools in translation learning. Răducea & Leotta (2026)analyze human translation, traditional AI and generative AI in relation to educational resources. The study said human translation is still more accurate but AI can be helpful in the process. But the system is tailored for English-Italian translation and does not consider the environment of Indonesian universities.

The gap of this study is the limited research on the comparison between the conventional and AI-assisted translation techniques among Indonesian English Literature students. This research is unusual as it assesses the effectiveness of translation of sixth-semester students using ChatGPT, Google Translate, and DeepL compared to traditional translation methods based on Larson's theory of correctness, clarity, and naturalness. This study intends to compare the translation quality of EFL students with conventional translation techniques and AI-assisted ones. The research aims to provide empirical data for translation pedagogy and to educate teachers on how to use AI judiciously in EFL learning environments by evaluating correctness, clarity and stylistic naturalness.

Based on the research gap and the purpose of the study, this research addresses the following questions:

RQ1. How is the quality of EFL students' translations produced through the conventional translation method in terms of accuracy, clarity, and naturalness?

RQ2. How is the quality of EFL students' translations produced with AI assistance in terms of accuracy, clarity, and naturalness?

RQ3. What descriptive differences can be identified between conventional and AI-assisted translation in terms of accuracy, clarity, and naturalness?

2. Method

Research Design

This study employed a qualitative descriptive design supported by structured descriptive scoring to examine and compare the translation quality of EFL students under two translation conditions: conventional translation without AI assistance and AI-assisted translation. The qualitative component focused on describing and interpreting students'

translation products, particularly instances of meaning distortion, unclear expressions, grammatical problems, and unnatural target-language formulations. In addition, a structured four-level scoring procedure was used to summarize the observed quality of the translations in terms of accuracy, clarity, and naturalness. The numerical results were used descriptively to identify patterns within and across the two conditions rather than to establish a statistically significant causal effect of AI assistance. This approach was considered appropriate because the study combines qualitative interpretation of translation products with descriptive numerical summaries of the assessment results.

Participants and Ethical Considerations

The participants included 10 students from the English Literature Department of a private university in West Nusa Tenggara, Indonesia, in the Sixth Semester. Participants were chosen by purposive sampling. According to Patton (2002), in purposive sampling, participants are chosen based on the characteristics related to the purpose of a study. The participants were chosen as the students were assumed to be able to do both traditional and AI-assisted translation after having done previous translation related courses.

The same participants did both translation tasks, which allowed the study to focus on the differences in translation performance in the two conditions. It was voluntary to take part in the study and informed consent was taken prior to data collection. Participants understood the purpose of the research and were informed that they could withdraw from the study without any problems. The study contained no clinical interventions, sensitive personal data, or vulnerable groups. The study was reviewed and determined to be exempt from formal ethical review by the institution, as the study involved non-sensitive educational activities and no identifiable personal information was collected.

Data Collection and Translation Tasks

Using two translation tasks, English-to-Indonesian, different translation performance of students with and without the aid of AI were studied. The first of the two tasks instructed students to perform the translation without AI, the second task employed the use of AI. The same participants performed both tasks. The source texts utilized were academic texts belonging to descriptive genre. Both the texts dealt with the same general topic, which was the necessity of education in the development of the individual, the economy, society, and the state, as well as the creation of a society which is innovative and responsible. The two source texts were selected because they addressed related academic themes concerning education and social development.

However, the two translation tasks were not fully equivalent in length because the AI-assisted task included an additional paragraph. In addition, the AI-assisted task retained the core text used in the conventional condition. Consequently, the two conditions should not be interpreted as a fully controlled experimental comparison. The repeated core material may have introduced a practice or familiarity effect, as participants had previously encountered part of the source text. The findings are therefore interpreted as descriptive differences between the two translation conditions rather than as evidence of a causal effect of AI assistance.

ISSN 2338-4778 (Print)
ISSN 2548-4192 (Online)

While the traditional translation task utilized the core section of a text, 'Investing in Quality Education for Economic Development, Peace, and Stability'. This text discussed the role of education in economic development and in the promotion of social unity, peace, and stability. It also addressed the need for education in the development of innovative and globally competitive social infrastructure, as well as creative progress. The source text has 106 words inclusive of the title. The source text contained abstract words and multi-word expressions as well as complex sentences. Illustrative examples of constructions with difficulty were social unity, creative progress, civic life, functioning society, and global competitiveness. Refers to students' understanding of meaning in the context of the sentence as opposed to the meaning of the individual words.

The AI-assisted translation task integrated a core text with an additional paragraph which described the role that education plays in country resilience during periods of sudden, disruptive changes in society, technology, and the economy. This paragraph contained language specific to the context and academic discourse (e.g. human capital, resilience, future societies, surprise shocks, changing labor markets) and thus provided a better representation of the type of language students would encounter in authentic translations.

Although the source text for the AI-assisted task was longer, both tasks shared the same topic, genre, and general linguistic features since they both focused on descriptions. In both the AI and non-AI conditions, the use of the same core text helped to retain consistent themes and language. The AI-assisted task included an additional paragraph to provide a greater volume of translation work and to analyze how learners used translation AI for more extensive academic content. Hence, the tasks were not the same length, but they both accessed the same level of linguistic complexity and shared the same topic and genre.

AI-Assisted Translation Procedure

To assess independent translation relative to translation aided by AI, Participants first completed the conventional translation task and subsequently completed the AI-assisted translation task. The translations were produced in handwritten form. For the AI-assisted task, participants were allowed to select an AI-based translation tool according to their preference. The available tools included ChatGPT, Google Translate, and DeepL. Participants were not required to use all three tools, and the specific tool selected by each participant was not treated as a separate analytical variable. They could enter the source text as a complete passage and review the generated output before submitting their final translation.

Because tool selection and prompting behavior were not standardized across participants, the AI-assisted condition is treated in this study as a broad AI-assisted translation condition rather than as a controlled comparison of individual AI systems. All participants completed the conventional translation task before the AI-assisted task; therefore, the fixed task order should be considered when interpreting differences between the two conditions.

Translation Quality Assessment

The meaning-based approach to translation developed by Larson (1997) evaluates how well a translation conveys the meaning of the source text and communicates with a target audience in a way that is clear and natural. From this perspective, the three dimensions that this assessment considers are accuracy, clarity, and naturalness. Accuracy assesses the level to which the text in the source communicates the same meaning and the same information as the text in the target.

This assessment examined if translations included any omissions, additions, or meaning distortions and mistranslations. Clarity assesses the level to which the translated text is understood by the target readers. This dimension assessed the structure of the sentences, wording, and the logical flow of the text and its overall level of ease of comprehension. It also assessed the translations for their level of meaning ambiguity. Naturalness assessed the level to which the translation conforms to the grammar and linguistic rules and norms of the target language. A translation was regarded as natural if it was a smooth and correct rendition of the text and input instructions into Indonesian and did not appear as a literal translation.

Table 1. Operational Scoring Rubric

Score	**Accuracy**	**Clarity**	**Naturalness**
4 – Very Good	Meaning is fully transferred with no significant omission, addition, distortion, or mistranslation.	Meaning is clear, coherent, and easily understood without ambiguity.	Expression conforms naturally to Indonesian grammar, collocation, and usage.
3 – Good	Main meaning is transferred, but minor inaccuracies or shifts occur without substantially affecting the message.	Generally clear, although minor structural or lexical problems may occur.	Generally natural, although minor awkwardness or source-language influence remains.
2 – Fair	Several inaccuracies, omissions, additions, or meaning shifts affect part of the message.	Meaning is partly understandable but contains noticeable ambiguity or structural problems.	Several expressions are awkward, literal, or inconsistent with natural Indonesian usage.
1 – Poor	Meaning is substantially distorted, omitted, or mistranslated.	Meaning is difficult to understand because of serious structural, lexical, or coherence problems.	The translation is highly unnatural and strongly reflects inappropriate source-language structures.

The same four-level rubric was applied consistently to the accuracy, clarity, and naturalness dimensions. A score was assigned by examining each translation segment against the source text and determining the extent to which the segment satisfied the operational criteria for the relevant dimension.

ISSN 2338-4778 (Print)
ISSN 2548-4192 (Online)

Data Analysis

The data were analyzed using qualitative descriptive analysis. First, all translation products were gathered, and, based on the translation mode, were either categorized as conventional translation or AI-based translation. Doing this enabled a systematic examination of the quality of translation in the two categories. The second step was to assess the accuracy of translation. Each target text was reviewed against the source text. It was ascertained whether the target text conveyed the meaning and message, and whether the information was contained. Particular emphasis was placed on omissions, additions, mistranslations, and distortions that affect the quality of a translation. The third step was to assess the level of translation. The structure of the sentences, as well as the lexical items, were examined to determine the coherence of the translated message and its overall level of reading ease.

A translation was considered to have clarity if it conveyed its intended meaning to target readers without ambiguity and confusion. The final step was to assess the level of translation. Translations were examined based on their grammatical correctness and level of enthusiasm. Translation was considered natural if it followed the rules of standard Indonesian, and if it was evident that it was originally formulated in the target language. The three dimensions were evaluated. Based on the evaluation of the two translation conditions, the trends, both positive and negative, were identified. The translation results were examined to identify the extent to which AI-based translation tools help students translate to a higher degree of accuracy, clarity and naturalness.

3. Results

Translation Quality Using Conventional Translation Method

This section presents the translation quality observed in the conventional translation condition based on three dimensions: accuracy, clarity, and naturalness, following the translation quality assessment framework used in this study. Each translation segment was assessed using a four-point scale, ranging from Score 1 (poor) to Score 4 (very good). The assessment results are presented in Table 1, which shows the frequency and percentage of each score for the three quality dimensions. Overall, the results indicate that the conventional translation condition was predominantly rated at Score 4, although some segments received lower scores, particularly in terms of accuracy, clarity, and naturalness.

Tabel 1. Translation Quality Assessment Using Conventional Translation

Aspect	Score 4 (√)	Score 4 (%)	Score 3 (√)	Score 3 (%)	Score 2 (√)	Score 2 (%)	Score 1 (√)	Score 1 (%)	Total (√)
Accuracy	58	82.9	8	11.4	3	4.3	1	1.4	70
Clarity	55	78.6	9	12.9	4	5.7	2	2.8	70
Naturalness	52	74.3	10	14.3	6	8.6	2	2.8	70
TOTAL	165	78.6	27	12.9	13	6.2	5	2.3	210

The table shows that the translation quality produced by the conventional method is generally good, but there are still some weaknesses in all three aspects: accuracy, clarity, and naturalness. Score 4 was awarded to 165 (78.6%) of the 210 items overall. It indicates that most of the conventional translation results were classified as highly acceptable according to the translation quality assessment criteria. As for accuracy, 58 items of 70 items or 82.9% were scored Score 4. This indicates that most assessed translation segments in the conventional condition received the highest accuracy rating. However, 8 items, or 11.4% received Score 3, 3 items, or 4.3% received Score 2, and 1 item, or 1.4% received Score 1. These findings suggest that there were still some translations with minor meaning shifts, incomplete meaning transfer, or incorrect word choices.

To clarify, 55 of the 70 items (78.6%) were rated Score 4. This suggests that most translations were accessible and intelligible to the target readers. However, 9 items, or 12.9% received Score 3, 4 items, or 5.7% received Score 2, and 2 items, or 2.8% received Score 1. Results show that some translations were problematic in terms of sentence structure, coherence or choice of words, which made the message less clear.

Of the 70 items, 52 (74.3%) received Score 4 for naturalness. This is the lowest percentage of the three aspects. It indicates that the most difficult part in traditional translation was naturalness. Many translations were good but some still sounded literal, stiff or less natural in the target language. This is reflected in 10 items or 14.3% that obtained Score 3, 6 items or 8.6% that obtained Score 2 and 2 items or 2.8% that obtained Score 1.

Overall, the traditional translation approach resulted in a fairly good translation quality, particularly in terms of accuracy. However, the lower score in naturalness shows that students need to improve their ability to produce fluent, idiomatic, and natural sounding translations in the target language. Therefore, the traditional translation can help students develop the ability of independent translation, but it needs stronger training on vocabulary selection, sentence reconstruction and cultural adaptation.

Table 2. Conventional Student Translation Results

	Source text		Target text
1	Investing in Quality Education for Economic Development, Peace, and Stability	1.	Investasi dalam pendidikan untuk perkembangan ekonomi, perdamaian, dan stabilitas.
		2.	Menginvestasikan kualitas pengetahuan perkembangan ekonomi, perdamaian, dan stabilitas negara
		3.	Investasi pada kualitas pendidikan untuk pengembangan, kedamaian, dan stabilitas ekonomi
		4.	Investasi pada kualitas kehidupan untuk pembangunan ekonomi, kedamaian, dan stabilitas.
		5.	Berinvestasi dalam pendidikan berkualitas

ISSN 2338-4778 (Print)
ISSN 2548-4192 (Online)

	Source text	Target text
		ekonomi, stabilitas, dan kesejahteraan.
		6. Berinvestasi dalam pendidikan berkualitas ekonomi, stabilitas, dan kesejahteraan.
		7. Menginvestasikan kualitas pengetahuan perkembangan ekonomi, perdamaian, dan untuk stabilitas
		8. Investasi dalam kualitas pendidikan untuk perkembangan ekonomi, kedamaian dan kestabilan
		9. Investasi pada kualitas pendidikan untuk pengembangan ekonomi, kedamaian, dan stabilitas.
		10. Investasi pada kualitas pendidikan untuk pembangunan ekonomi, kenyamanan, stabilitas.
2	Education is the foundation of any functioning society.	1. Pendidikan adalah fondasi dalam setiap fungsi masyarakat.
		2. Pendidikan adalah salah satu pondasi yang berfungsi dalam masyarakat.
		3. Pendidikan adalah pondasi dari kehidupan sehari-hari.
		4. Edukasi adalah pondasi dari segala tujuan sosial.
		5. Pendidikan adalah landasan dari setiap masyarakat yang berfungsi dengan baik.
		6. Pengetahuan adalah pondasi untuk beberapa fungsi masyarakat.
		7. Pendidikan adalah pondasi dari apapun berfungsi sosial.
		8. Pendidikan adalah fondasi yang berfungsi dalam hal apapun di masyarakat.
		9. Pendidikan adalah pondasi dari segala tujuan sosial
		10. Pendidikan adalah pondasi dari fungsi sosial yang memberikan setiap orang independen.
3	It enables individuals to live together harmoniously, engage in civic life, and support the economy.	1. Itu memudahkan setiap orang hidup bersama dengan rukun, melibatkan kehidupan

Source text		Target text
		berwarganegaraan, dan mendukung perekonomian.
	2.	Ini memudahkan seseorang untuk hidup harmonis bersama, mengembangkan kehidupan bernegara, dan mendukung ekonomi.
	3.	Pendidikan dapat membuat hidup lebih harmonis, terlibat dalam kehidupan sehari-hari, dan membantu perekonomian.
	4.	Ini membutuhkan hidup bersama dengan harmonis, kehidupan berumah tangga, dan meningkatkan ekonomi.
	5.	Hal ini memungkinkan individu untuk hidup bersama secara harmonis, berpartisipasi dalam kehidupan bermasyarakat, dan mendukung perekonomian.
	6.	Itu memungkinkan individu untuk tinggal bersama secara harmonis, melibatkan kehidupan kewarganegaraan, dan mendukung ekonomi.
	7.	Itu memungkinkan individu untuk hidup bersama secara harmonis, terlibat dalam kehidupan bermasyarakat, dan mendukung ekonomi.
	8.	Hal ini memungkinkan orang-orang untuk tinggal harmonis bersama dalam hidup bermasyarakat dan mendukung sistem perekonomian.
	9.	Itu dibutuhkan untuk hidup berdampingan secara harmonis dalam kehidupan rumah tangga dan penopang ekonomi.
	10.	Hidup bersama dengan harmonis, juga dalam kehidupan sosial dan membantu ekonomi.

Analysis of Student Translation Results Using Larson's Theory

According to Larson, a good translation should transfer the meaning of the source text accurately, express it clearly so that the target readers can understand it, and use natural forms of the receptor language. In other words, translation is not only about

ISSN 2338-4778 (Print)
ISSN 2548-4192 (Online)

replacing words from the source language into the target language, but about transferring meaning in a way that sounds acceptable and natural in the target language.

The translation results show that the students generally attempted to transfer the meaning of the English source text into Indonesian by using a conventional translation method. However, the quality of the translations varied significantly in terms of accuracy, clarity, and naturalness. Based on Larson's theory, an acceptable translation should maintain the meaning of the source text, be easily understood by the target readers, and sound natural in the target language. In this case, several translations successfully conveyed the core meaning, while others showed meaning distortion, awkward sentence structure, lexical inaccuracy, and unnatural Indonesian expressions.

Accuracy

In terms of accuracy, the students' translation results show that some of the main messages from the source text were successfully transferred, but several important meanings were changed, omitted, or added. Based on Larson's theory, accuracy refers to how well the meaning of the source language is transferred into the target language without distortion, deletion, or unnecessary addition. In the students' conventional translation, the general topic of the text, which is about education, economic development, peace, stability, society, and civic life, can still be recognized. However, many students had difficulty maintaining the exact meaning of key terms and phrases.

One important example can be seen in the translation of "Investing in Quality Education for Economic Development, Peace, and Stability." Some students translated it quite accurately, such as "Investasi pada kualitas pendidikan untuk pengembangan ekonomi, kedamaian, dan stabilitas." This translation still represents the main idea of the source text because it includes education, economic development, peace, and stability.

However, it could be improved by using "pendidikan berkualitas" instead of "kualitas pendidikan," and "pembangunan ekonomi" instead of "pengembangan ekonomi" to make it more precise and academic. On the other hand, some translations show serious meaning distortion, such as "Menginvestasikan kualitas pengetahuan perkembangan ekonomi, perdamaian, dan stabilitas negara" and "Investasi pada kualitas kehidupan untuk pembangunan ekonomi, kedamaian, dan stabilitas." These translations are inaccurate because "quality education" is translated as "kualitas pengetahuan" or "kualitas kehidupan." The word *education* should be translated as "pendidikan," not "pengetahuan" or "kehidupan." This changes the central meaning of the source text.

Another accuracy problem appears in the translation of "Education is the foundation of any functioning society." The most accurate student translation is "Pendidikan adalah landasan dari setiap masyarakat yang berfungsi dengan baik." This translation successfully transfers the meaning because "foundation" is translated as "landasan," and "functioning society" is translated as "masyarakat yang berfungsi dengan baik." However, some students translated the phrase inaccurately, for example "Pendidikan adalah fondasi dalam setiap fungsi masyarakat" and "Pendidikan adalah salah satu pondasi yang berfungsi dalam masyarakat." These translations change the meaning of *functioning society*. The source text does not refer to "the functions of society," but to a society that operates properly. Therefore, the inaccurate versions show that some students translated the words individually without understanding the whole phrase.

The same issue is also found in the translation of "It enables individuals to live together harmoniously, engage in civic life, and support the economy." The most accurate translation is "Hal ini memungkinkan individu untuk hidup bersama secara harmonis, berpartisipasi dalam kehidupan bermasyarakat, dan mendukung perekonomian." This version maintains the meaning of *enables*, *individuals*, *live together harmoniously*, *engage in civic life*, and *support the economy*.

However, some students translated "enables" as "membutuhkan", which is inaccurate because *enables* means "memungkinkan," not "membutuhkan." Some students also translated "civic life" as "kehidupan rumah tangga" or "kehidupan sehari-hari." These translations are inaccurate because *civic life* refers to public, social, or citizenship-related life, not domestic life or daily routines. Therefore, in terms of accuracy, the conventional translation results are only partially successful. Some students understood the core meaning, but others produced meaning shifts due to literal translation and incorrect lexical choices.

Clarity

In terms of clarity, the students' translations vary from clear and understandable to confusing and grammatically problematic. According to Larson, clarity means that the translated message should be easily understood by the target readers. A translation may contain some correct words, but if the structure is confusing, the message will not be clearly communicated. In the students' conventional translation, clarity is strongly influenced by sentence structure, word order, and the logical connection between ideas.

Some translations are clear because they use complete and logical Indonesian structures. For example, "*Pendidikan adalah landasan dari setiap masyarakat yang berfungsi dengan baik*" is clear because the relationship between education and society is easy to understand. The sentence tells the reader that education is the foundation of a society that works properly. Another clear example is "*Hal ini memungkinkan individu untuk hidup bersama secara harmonis, berpartisipasi dalam kehidupan bermasyarakat, dan mendukung perekonomian."* This sentence is clear because it has a complete structure: subject, verb, object, and three parallel actions. The reader can easily understand that education allows individuals to live harmoniously, participate in society, and support the economy.

However, several translations are unclear because the students followed the English structure too closely or arranged Indonesian words unnaturally. For instance, "*Menginvestasikan kualitas pengetahuan perkembangan ekonomi, perdamaian, dan stabilitas negara*" is difficult to understand because the relationship between the phrases is unclear. The reader may not understand whether the sentence means investing in knowledge, investing in quality, or investing in economic development. Another unclear example is "*Pendidikan adalah pondasi dari apapun berfungsi sosial."* This sentence is grammatically weak and does not clearly communicate the meaning of *functioning society*. It sounds like a direct word-for-word translation from English, but it does not form a meaningful Indonesian sentence.

Clarity problems also appear in translations such as *"melibatkan kehidupan kewarganegaraan" and "Itu memungkinkan individu untuk tinggal bersama secara harmonis, melibatkan kehidupan kewarganegaraan, dan mendukung ekonomi."* The phrase "melibatkan kehidupan kewarganegaraan" is unclear because the verb "melibatkan" does

ISSN 2338-4778 (Print)
ISSN 2548-4192 (Online)

not fit the context. In Indonesian, it would be clearer to say *"berpartisipasi dalam kehidupan bermasyarakat" or "terlibat dalam kehidupan kewarganegaraan."* Another unclear translation is *"Hidup bersama dengan harmonis, juga dalam kehidupan sosial dan membantu ekonomi."* This version is incomplete because it omits the subject and the verb *enables*. As a result, the logical connection between education and its functions is lost.

Therefore, in terms of clarity, the students' conventional translations show that they can understand simple sentence patterns, but they struggle when translating abstract phrases such as "quality education," "*functioning society,*" and "*civic life*." The clearer translations are those that reorganize the sentence according to Indonesian grammar, while the unclear translations are mostly caused by word-for-word translation and weak sentence construction.

Naturalness

In terms of naturalness, many of the students' translations still sound awkward because they are influenced by the structure of the source language. Based on Larson's theory, a natural translation should sound as if it was originally written in the target language. It should use expressions, collocations, and sentence patterns that are acceptable to target-language readers. In this case, some students produced translations that were understandable but not fully natural in Indonesian.

For example, the phrase "*Investasi dalam pendidikan untuk perkembangan ekonomi, perdamaian, dan stabilitas"* sounds quite natural, although it omits the meaning of "quality." A more natural and complete version would be "*Investasi dalam pendidikan berkualitas untuk pembangunan ekonomi, perdamaian, dan stabilitas*." The phrase "pendidikan berkualitas" sounds more natural than "kualitas pendidikan" in this context because the source text refers to education that has good quality, not quality as a separate object. Similarly, "*pembangunan ekonomi*" sounds more natural and academic than "*perkembangan ekonomi"* when translating *economic development*.

Some translations are unnatural because they use inappropriate word combinations. For example, "*menginvestasikan kualitas pengetahuan*" is not natural in Indonesian. Indonesian speakers usually say "*berinvestasi dalam pendidikan berkualitas*" or "investasi dalam pendidikan berkualitas." Another example is "*tinggal harmonis bersama."* Although the meaning can still be guessed, the expression sounds awkward. A more natural expression is "*hidup bersama secara harmonis*" or "*hidup berdampingan secara harmonis."*

The translation of "*civic life*" also shows naturalness problems. Phrases such as "*melibatkan kehidupan kewarganegaraan*" and "*kehidupan berwarganegaraan*" are not natural Indonesian expressions. They sound like literal translations from English. A more natural translation would be "berpartisipasi dalam kehidupan bermasyarakat" or "*terlibat dalam kehidupan kewarganegaraan*." In academic Indonesian, "*kehidupan bermasyarakat*" is more natural and easier to understand for general readers.

The use of pronouns also affects naturalness. Several students translated "It" as "Itu" or "Ini." Although these words are grammatically possible, they sound less formal and less natural in academic Indonesian. Since "It" refers to education, the translation would be more natural if it used "Hal ini" or repeated the noun "Pendidikan." For example, "*Pendidikan memungkinkan individu untuk hidup berdampingan secara harmonis, berpartisipasi dalam kehidupan bermasyarakat, dan mendukung perekonomian*" sounds

more natural than "Itu memungkinkan individu..." Overall, the naturalness of the students' conventional translations is still limited. Some translations are acceptable, but many still sound rigid, awkward, or too close to the English structure. This shows that the students need to improve their ability to produce target-language expressions that are not only accurate but also natural and acceptable in Indonesian academic writing.

Based on Larson's theory, the students' conventional translation results are partially successful. In terms of accuracy, some translations successfully transfer the main meaning of the source text, but others contain meaning distortion, especially in translating "quality education," "functioning society," and "civic life." In terms of clarity, several translations are understandable, but some are confusing because of weak grammar and unclear phrase relationships. In terms of naturalness, many translations still sound awkward because the students tend to follow the structure of the English source text rather than producing natural Indonesian expressions.

3.2 Translation Quality in AI-Assisted Translation

Tabel 2. Translation Quality Assessment in AI-Assisted Translation

Aspect	Score 4 (√)	Score 4 (%)	Score 3 (√)	Score 3 (%)	Score 2 (√)	Score 2 (%)	Score 1 (√)	Score 1 (%)	Total (√)
Accuracy	61	87.14	6	8.57	3	4.29	0	0.0	70
Clarity	58	82.86	8	11.43	4	5.71	0	0.0	70
Naturalness	56	80.0	9	12.86	5	7.14	0	0.0	70
TOTAL	175	83.33	23	10.95	12	5.71	0	0.0	210

The results show that the quality of AI-assisted translation is generally good in the three evaluated categories: accuracy, clarity and naturalness. 4 was given to 175 of the 210 items (83.33%). That is, most of the results of the AI assisted translation were judged to be highly satisfactory according to the standards of translation quality of Larson.

On the accuracy dimension, 61 out of 70 items (87.14%) scored a 4. This is the biggest share of the three. This, in general, shows that the meaning of the source text was successfully translated into the target language with the help of AI-assisted translation. Score 3 was given to 6 products (8.57%) and Score 2 was given to 3 items (4.29%). Score: 1. Nothing got. Therefore, no serious distortion of meaning was found, but some translations still had minor faults or poor transfer of meaning. For clarity, 58 out of 70 items (82.86%) received a Score of 4. This indicates that most of the translations were comprehensible and reader-friendly for the target readers. Eight things (11.43%) received 3 and four items (5.71%) received a 2. The results show that some of the AI-assisted translations still have problems in sentence structure, word choice or readability which may affect the reader's understanding.

The 70 submissions received a Score of 4 for naturalness in 56 (80.0%) cases. This is the lowest of the 3 measures, but still high. This shows a fluid overall translation with AI assistance but some outputs are stilted, literal or less idiomatic in the target language. Three items (12.86%) had a score of 3 and five items (7.14%) had a score of 2. Clearly, naturalness is still the biggest challenge in AI-assisted translation.

In summary, the results suggest that AI-assisted translation tools can produce translations that are both accurate and understandable. The slightly lower naturalness score shows that AI-generated translations need human supervision, especially to

ISSN 2338-4778 (Print)
ISSN 2548-4192 (Online)

improve fluency, cultural appropriateness and true expression in the target language. AI tools can help in translation processes, but they should not replace human translators and the necessary judgement of students in reviewing and improving translation outputs. The following table presents an excerpt of students' translation results produced with the assistance of AI,

	Source Text	**Target Text**
1	Investing in Quality Education for Economic Development, Peace, and Stability	1. Investasi dalam pendidikan yang berkualitas merupakan kunci bagi pembangunan ekonomi, perdamaian, dan stabilitas.
		2. Investasi pada Pendidikan yang Berkualitas untuk Pembangunan Ekonomi, Perdamaian, dan Stabilitas.
		3. Berinvestasi dalam Pendidikan Berkualitas untuk Pembangunan Ekonomi, Perdamaian, dan Stabilitas.
		4. Investasi dalam Pendidikan Berkualitas untuk Pembangunan Ekonomi, Perdamaian, dan Stabilitas.
		5. Menanamkan Pendidikan yang Berkualitas untuk Pembangunan, Perdamaian, dan Keseimbangan Ekonomi.
		6. Berinvestasi dalam Pendidikan Berkualitas untuk Pembangunan Ekonomi, Perdamaian, dan Stabilitas.
		7. Investasi dalam Pendidikan Berkualitas untuk Pembangunan Ekonomi, Perdamaian, dan Stabilitas.
		8. Berinvestasi dalam Pendidikan Berkualitas untuk Pembangunan Ekonomi, Perdamaian, dan Stabilitas.
		9. Mengungkap Pendidikan Berkualitas untuk Pembangunan Ekonomi, Perdamaian, dan Stabilitas.
		10. Pendidikan Berkualitas untuk Pembangunan Ekonomi, Perdamaian, dan Stabilitas.

	Source Text	**Target Text**
2	Education is the foundation of any functioning society.	1. Pendidikan menjadi dasar utama bagi masyarakat agar berfungsi dengan baik
		2. Pendidikan adalah dasar dari masyarakat yang baik
		3. Pendidikan adalah dasar dari masyarakat agar bisa menjalani hidup yang baik
		4. Pendidikan merupakan dasar bagi masyarakat yang berfungsi.
		5. Pendidikan adalah dasar dari fungsi masyarakat.
		6. Pendidikan merupakan landasan utama bagi masyarakat yang berfungsi dengan baik.
		7. Pendidikan merupakan dasar dari masyarakat yang berfungsi dengan baik
		8. Pendidikan adalah fondasi dari setiap masyarakat yang berfungsi.
		9. Pendidikan adalah fondasi dari setiap masyarakat yang bermanfaat.
		10. Pendidikan adalah fondasi dari setiap masyarakat yang berfungsi.
3	It enables individuals to live together harmoniously, engage in civic life, and support the economy.	1. karena memungkinkan individu hidup rukun, berpartisipasi dalam kehidupan sosial, dan mendukung pertumbuhan ekonomi.
		2. Pendidikan membantu orang hidup rukun, ikut dalam kehidupan masyarakat, dan mendukung perekonomian.
		3. Pendidikan memungkinkan setiap orang untuk hidup bersama secara harmonis, terlibat dalam kehidupan bermasyarakat, dan mendukung perekonomian.
		4. Pendidikan memungkinkan individu untuk hidup berdampingan secara harmonis, berpartisipasi dalam kehidupan sipil, dan mendukung perekonomian.
		5. Pendidikan memungkinkan setiap orang untuk hidup bersama secara harmonis,

ISSN 2338-4778 (Print)
ISSN 2548-4192 (Online)

Source Text	Target Text
	terlibat dalam kehidupan bermasyarakat, dan mendukung perekonomian.

Analysis of AI-Assisted Translation Results Based on Larson's Theory

Larson (1984) states that translation is not only the replacement of words from the source language into the target language but the transfer of the meaning of the source text into the receptor language using forms that are accurate, clear and natural. Therefore, a good translation should preserve the original message and be easily understood by the target readers and sound natural in the target language. The quality of AI-assisted translation is generally of fairly good quality based on the three aspects, but several problems still appear in word choice, meaning shifts and unnatural expressions.

Accuracy

Most AI-assisted translations are capable of accurately rendering the core message of the source text. For the first source text, "Investing in Quality Education for Economic Development, Peace and Stability", the majority of target texts successfully retain the key meanings, investing, quality education, economic development, peace and stability. For example, translations such as "Berinvestasi dalam Pendidikan Berkualitas untuk Pembangunan Ekonomi, Perdamaian, dan Stabilitas" precisely convey the meaning of the source text. The word "berinvestasi" is correct because it shows the action of investing. The word "pendidikan berkualitas" is correct because it shows "quality education".

But some translations have minor meaning shifts. Target text 15, "Menanamkan Pendidikan yang Berkualitas untuk Pembangunan, Perdamaian, dan Keseimbangan Ekonomi" is less accurate in that "menanamkan" does not fully capture the idea of "investing." menanamkan education in Indonesian is more like instilling education or values, not making an investment in education. And, "keseimbangan ekonomi" also alters the meaning of "economic development" and "stability." In the source text, economic development and economic stability are two different concepts but, in the translation, they are merged and reinterpreted as economic balance. Target text 19 "Mengungkap Pendidikan Berkualitas..." is also wrong as "mengungkap" means "to reveal" which is irrelevant to the idea of investing. Target text 20 leaves out the word "investing" so the action in the source text is lost.

The second source, "Education is the foundation of any functioning society," is translated mostly correctly. Many students translated "foundation" as "dasar", "landasan" or "fondasi" which are appropriate equivalents. "Pendidikan merupakan landasan utama bagi masyarakat yang berfungsi dengan baik," target text 16, is one of the most accurate versions as it maintains the idea of education as a foundation and the idea of a functioning society.

However, target text 12, "Pendidikan adalah dasar dari masyarakat yang baik," slightly diminishes the meaning because "functioning society" does not simply mean "good society," but a society that works properly or functions effectively. The target text 19, "masyarakat yang bermanfaat" also changes the meaning, beneficial society is not the same as functioning society.

The third source text is "It enables people to live together in harmony, engage in civic life, and strengthen the economy". The AI-assisted translations are quite accurate. Several translations make the pronoun "It" explicit as "Pendidikan" which is a good translation decision because it helps the readers to understand the subject clearly. Target text 13 and target text 15, "*Pendidikan memungkinkan setiap orang untuk hidup bersama secara harmonis, terlibat dalam kehidupan bermasyarakat, dan mendukung perekonomian*" are correct. It is because it preserves the three main ideas: harmonious living, social/civic participation, and economic support. Target text 14 is also correct, but the expression "kehidupan sipil" sounds a little too literal in Indonesian. Target text 11 starts with "karena" which could be correct if it refers to the sentence before that but when alone, it is grammatically dependent and less complete.

In general, the quality of the AI-assisted translations is pretty good. Most of the translations keep the essential message of the source text, however, there are still several mistakes that happen due to the use of inappropriate lexis, omission of key meanings and minor shifts in meaning.

Clarity

In terms of clarity, the AI-assisted translations are mostly easy to understand. The sentences are more organized and less confusing than translations that are a direct word-for-word rendition. Most translations of the first source document clearly show the connection between education, economic development, peace and stability. Phrases such as "*Pendidikan Berkualitas*", "Pembangunan Ekonomi", "*Perdamaian",* and "Stabilitas" are used, making the message understandable for Indonesian readers. But some translations are less clear because of improper word choices. Target text 15 "*Menanamkan Pendidikan yang Berkualitas..."* may confuse readers since the verb "*menanamkan*" is not commonly used in investment in education. Target text 19, "*Mengungkap Pendidikan Berkualitas..."* is also unclear because the verb "mengungkap" does not logically connect with the rest of the sentence. This indicates that AI-assisted translation is still able to make lexical choices that are grammatically acceptable but semantically inappropriate.

The clarity is generally good too for the second source text. Most translations are clear that education is the foundation of society. Target texts 16 and 17 are particularly clear because they use the phrase "*masyarakat yang berfungsi dengan baik,"* which directly explains the meaning of "functioning society." However, target text 15, "Education is the foundation of the function of society" is less clear because it sounds abstract and a little awkward. The phrase might make readers question if education is the foundation of society itself, or just the functions of society.

The third text in the source has a strong clarity, as most of the translations explicitly mention "Pendidikan" as the subject. This improves readability because the English pronoun "It" relates to education in the previous sentence. By using the noun "Pendidikan" instead of the pronoun in Indonesian, the sentence becomes clearer and more direct. But target text 11 starts with "karena," making the sentence dependent on another sentence. If the translation is given as a separate sentence, it is less clear because it does not stand on its own. Hence, the AI-assisted translations are mostly successful in delivering the message to Indonesian readers with Larson's criterion of clarity. The most frequent problems of clarity are bad diction, incomplete sentence structure, and expressions that are too literal.

ISSN 2338-4778 (Print)
ISSN 2548-4192 (Online)

Naturalness

Naturalness means that the translation sounds like normal and acceptable Indonesian. Larson's theory states that a natural translation should not sound strange, stiff or like a machine-made translation. In this sense the AI-assisted translations are quite natural, although some versions are still quite literal. For the first source text, translations such as "Investing in Quality Education for Economic Development, Peace and Stability" are natural as a title or heading. The structure is tight and suitable for academic writing. Target text 11, "*Investasi dalam pendidikan yang berkualitas merupakan kunci bagi pembangunan ekonomi,* perdamaian, dan stabilitas" is also natural, but it turns the structure from a title to a full sentence.

This is not necessarily wrong but it slightly changes the style of the original text. Meanwhile, target text 15 and target text 19 sound unnatural as "*menanamkan pendidikan*" and "*mengungkap pendidikan berkualitas"* are not common collocations in Indonesian. For the second source text, the most natural target text is 16: "Education is the foundation for a well-functioning society." The term "landasan utama" is academic and sounds natural in Indonesian. 18 and 20 "Pendidikan adalah fondasi dari setiap masyarakat yang berfungsi" understandable but sounds a bit literal as "masyarakat yang berfungsi" is less natural than "*masyarakat yang berfungsi dengan baik.* The target text 15, "*dasar dari fungsi masyarakat,"* is grammatical but not semantic as it does not sound like a common Indonesian academic expression.

The third source text, meanwhile, sounds natural with target texts 13 and 15 because they use common Indonesian expressions such as "*hidup bersama secara harmonis,"* "*terlibat dalam kehidupan bermasyarakat,"* and "*mendukung perekonomian*." These phrases sound natural in academic Indonesian and do not seem forced. Target text 14 is fine but '*kehidupan sipil'* sounds a little formal and literal. A more natural phrase would be *'kehidupan bermasyarakat'* or *'kehidupan kewargaan*' depending on context.

The AI-assisted translation results are generally good in terms of accuracy, clarity and naturalness. The translations generally transmit the main meaning of the source texts, especially in terms of the link between education, society, peace, stability and the economy. The results indicate a higher proportion of Score 4 ratings in the AI-assisted condition. Some translations still have inaccurate word choices, such as "*mengungkap*" for "investing," meaning shifts such as "*keseimbangan ekonomi"* for "economic development and stability," and unnatural expressions such as "*dasar dari fungsi masyarakat."* The problems demonstrate that students still need to revise and critically evaluate the translations generated by the AI.

According to Larson's theory, the best translation is the translation that maintains the meaning of the original and uses Indonesian expressions that are clear and natural. Therefore, the best AI-assisted translations in this data are those which do not translate word by word, but convey the message meaningfully and idiomatically into Indonesian.

Comparative Analysis of Conventional and AI-Assisted Translation

Table 3. Comparison of Translation Quality of Conventional and AI-Assisted Translation

Quality Dimension	Conventional Score 4 (%)	AI-Assisted Score 4 (%)	Difference
Accuracy	82.90	87.14	+4.24
Clarity	78.60	82.86	+4.26
Naturalness	74.30	80.00	+5.70
Overall	78.60	83.33	+4.73

Table 3 shows that the AI-assisted condition had higher observed proportions of Score 4 across all three translation-quality dimensions. Accuracy increased from 82.90% in the conventional condition to 87.14% in the AI-assisted condition, representing a difference of 4.24 percentage points. Clarity increased from 78.60% to 82.86%, a difference of 4.26 percentage points, while naturalness increased from 74.30% to 80.00%, a difference of 5.70 percentage points.

Overall, the proportion of Score 4 ratings increased from 78.60% to 83.33%, representing a difference of 4.73 percentage points. These differences indicate higher observed scores in the AI-assisted condition within this sample. However, they should not be interpreted as evidence that AI assistance alone caused the improvement because the two tasks differed in length, the AI-assisted task followed the conventional task, and part of the source material was repeated.

Although the AI-assisted condition obtained higher observed scores, the comparison should be interpreted descriptively rather than causally. The same participants completed the conventional task before the AI-assisted task, and the latter contained part of the source material previously encountered by the participants. In addition, the two tasks were not identical in length. These characteristics introduce possible practice, familiarity, and task-difficulty effects. Therefore, the observed differences cannot be attributed exclusively to AI assistance. The findings are better understood as evidence that, under the conditions of this study, the AI-assisted condition was associated with a higher proportion of highly rated translation segments.

Limitation of the Study

This study has several limitations which should be considered when interpreting the findings. First, the two translation tasks were not equivalent in length. The traditional task was made up of 7 text units. The AI-assisted task was made up of 10 text units, keeping the core material of the traditional task. Differences in length of the two tasks, and repetition of some source texts in the AI-assisted condition may have introduced differences in task-difficulty, practice and familiarity. Second, the AI-based condition was not fully standardized because participants had the freedom to select any AI translation tools of their choice and their prompting behaviors were not controlled. Hence, the results of this study should not be generalized to any AI tool being superior. Third, inter-rater reliability was not established as the translations were assessed by only one evaluator. In future studies, multiple independent evaluators should be used and the appropriate measure of inter-rater agreement should be reported. Fourth, the sample was small, composed of only 10 EFL student translators.

ISSN 2338-4778 (Print)
ISSN 2548-4192 (Online)

While the participants were purposively chosen and had relevant translation learning experience, the small sample size limits the extent to which the results can be generalized to other student translators and different translation scenarios. Fifth, the study employed descriptive statistics and didn't utilize inferential statistics. Therefore, the distinctions made between the conventional and AI-assisted conditions should be regarded as descriptive samples, not statistically proven differences. Finally, because all the participants performed the conventional task first and then the AI-assisted task, the fixed task order may have also caused the distinctions made. Future studies should try to correct for these deficiencies by employing larger sample sizes, utilizing task order counter-balancing, matching source texts, standardizing AI procedures and evaluation, and using appropriate inferential statistics.

5. Conclusion

This study compared the observed translation quality of EFL students under conventional and AI-assisted translation conditions using three dimensions of translation quality: accuracy, clarity, and naturalness. The findings showed that both conditions generally produced translations with high observed quality ratings, while the AI-assisted condition showed higher proportions of the highest rating across all three dimensions. The largest observed difference occurred in naturalness, followed by clarity and accuracy. The qualitative findings further indicate that conventional translation enabled students to convey the core meanings of the source text independently, although difficulties were observed in lexical choice, sentence construction, and natural target-language expression. The AI-assisted condition showed more structured and generally natural formulations, but some inaccuracies, meaning shifts, and awkward expressions remained.

These findings highlight the continuing importance of human evaluation and post-editing when AI tools are used in translation activities. However, the observed differences should not be interpreted as evidence of a causal effect of AI assistance. The two tasks differed in length, with the AI-assisted task containing additional source-text sentences and retaining material previously encountered in the conventional task. In addition, all participants completed the conventional task before the AI-assisted task, AI-tool use and prompting were not standardized, and the translations were assessed by a single evaluator. These conditions limit the comparability and generalizability of the findings.

Future research should use equivalent but non-identical source texts, counterbalance task order, standardize or systematically document AI-tool use and prompting, involve multiple independent raters, and recruit larger and more diverse samples. Such designs would provide stronger evidence about the relationship between AI-assisted translation practices and EFL students' translation performance.

6. Aknowledgment

The authors would like to express their sincere gratitude to the Institute for Research and Community Service (LPPM) of Universitas Negeri Semarang (UNNES) for its support and contribution to this research. The authors also appreciate all participants who voluntarily took part in this study and contributed valuable data for the completion of this research.

7. References

Al Farisi, M. Z. (2018). The Impact of techniques and translation ideology on the clarity of pragmatic meanings translation of the Qur'anic imperative verses. Indonesian Journal of Applied Linguistics, 7(3), 676–686. https://doi.org/10.17509/ijal.v7i3.9818

Algaraady, J., & Mahyoob, M. (2025). Exploring ChatGPT's potential for augmenting post-editing in machine translation across multiple domains: challenges and opportunities. Frontiers in Artificial Intelligence, 8, 1526293. https://doi.org/https://doi.org/10.3389/frai.2025.1526293

Ayyaz, S. (2025). AI Translation Tools in Language Learning: Bridging Gaps and Enhancing Skills. In AI Applications for English Language Learning (pp. 43–72). IGI Global Scientific Publishing.

Belhassen, S., Hakami, A., Alzobidy, S., & Hamda, A. (2025). Navigating the complexities of AI-driven literary translation: Challenges and perspectives across diverse user groups.

Boonmoh, A., & Kulavichian, I. (n.d.). Enhancing Thai Pre-Service Teachers' Translation Skills Through AI Tools, Social Media, and Public Feedback.

Castilho, S., Doherty, S., Gaspari, F., & Moorkens, J. (2018). Approaches to Human and Machine Translation Quality Assessment. In J. Moorkens, S. Castilho, F. Gaspari, & S. Doherty (Eds.), Translation Quality Assessment: From Principles to Practice (pp. 9–38). Springer International Publishing. https://doi.org/10.1007/978-3-319-91241-7_2

Dinh, C. T. (2025). EFL Students' Perspectives on ChatGPT in Translation: Exploring AI Assistance, Motivation, and Learning Outcomes. Electronic Journal of E-Learning, 23(2), 99–116.

Hadi, M. Z. P., Yuliarsi, I., Pratama, H., & Yulianti, Y. (2024). Literacy in translation: between strategic competence and AI assistance. Proceedings of Fine Arts, Literature, Language, and Education, 830–839. https://proceeding.unnes.ac.id/icoella/article/view/3788

Hadi, M. Z. P., Yuliasri, I., Pratama, H., & Yuliati. (2025). Exploring Translation Techniques and Ideological Tendencies in AI-Assisted English Indonesian Texts by EFL Learners. International Journal of Learning, Teaching and Educational Research, 24(10), 85–105. https://doi.org/10.26803/ijlter.24.10.4

Karasimos, A. (2025). Artificial Intelligence and Machine Translation: Post-editing of Machine Translated Texts by Large Language Models vs Human Translation.

Larson, M. L. (1997). Meaning-based translation: A guide to cross-language equivalence. University press of America.

Li, R., Han, S., & Guo, Y.-K. (2025). Simulated Justice: How AI Alignment Replaces Conflict with Coherence. Available at SSRN 5940998.

Lin, G. H., & Chien, P. S. C. (2009). Machine Translation for Academic Purposes. International Conference on TESOL and Translation.

Lysova, I., Ahmed, L., Cunningham, B., Huang, Y., & Wiltschko, M. (2026). Do chatbots dream of AI sheep? A semantic–pragmatic investigation of "naturalness" in human–AI interaction. AI & SOCIETY, 41(2), 1053–1062. https://doi.org/10.1007/s00146-025-02595-1

ISSN 2338-4778 (Print)
ISSN 2548-4192 (Online)

Meyer, A. H. (2024). AI-Driven Quality Assurance in Translation: Tools and Techniques. Translating the Future: Exploring the Impact of Technology and AI on Modern Translation Studies, 53–64. https://doi.org/10.1007/978-3-319-91241-7_2

Moulavinafchi, A., Hosseini, S. M., Shadpour, R. S., & Qasim, Y. H. Q. (2025a). AI and the Next Era of Translation: A Critical Inquiry on Advantages, Risks, and Future Venues. Gonbad-Cals, 2(1), 1–34. https://doi.org/10.22034/jcals.2.1.1

Moulavinafchi, A., Hosseini, S. M., Shadpour, R. S., & Qasim, Y. H. Q. (2025b). AI and the Next Era of Translation: A Critical Inquiry on Advantages, Risks, and Future Venues. Critical Applied Linguistics Studies, 2(1), 1–34.

Otaif, F. A. (2026). From Input to Narrative: Authoring Processes in AI-generated Discourse. Journal of Arabic Sciences and Humanities, 5(2), 120–146.

Patton, M. Q. (2002). Two decades of developments in qualitative inquiry: A personal, experiential perspective. Qualitative Social Work, 1(3), 261–283. https://doi.org/https://doi.org/10.1177/1473325002001003636

Răducea, L., & Leotta, P. C. (2026). Traditional AI vs Generative AI vs Human Translation in Education-Related Texts, Translated from English into Italian. International Journal of English Linguistics, 16(1), 84. https://doi.org/10.5539/ijel.v16n1p84

Sayadani, A., Heydarpour, Y., & Asgharpour, S. (2019). The Quality of Meaning-based Translation According to Larson's Theory in Yasrebis Translation of Quran: Case Study of Kahf Surah. Translation Researches in the Arabic Language And Literature, 9(20), 59–92. https://doi.org/https://doi.org/10.22054/rctall.2019.36367.1348

Way, A. (2018). Quality Expectations of Machine Translation. In J. Moorkens, S. Castilho, F. Gaspari, & S. Doherty (Eds.), Translation Quality Assessment: From Principles to Practice (pp. 159–178). Springer International Publishing. https://doi.org/10.1007/978-3-319-91241-7_8

Weda, S. (2014). Transtool versus conventional translation in digital technology era. International Journal on Studies in English Language and Literature (IJSELL), 2(8), 149–153.

Wu, W. (2023). Automatic Machine Translation Quality Evaluation Model under Feature Extraction Algorithm. Procedia Computer Science, 247(C), 689–695. https://doi.org/10.1016/j.procs.2024.10.083

Yuliasri, I., Purwanto, B., Hadi, M. Z. P., Nurcahyo, A. D., Rochmahwati, P., Rifqi, M., Kumara, K. A. D., & Ma'sumah, F. (2025). Student poetry translations with and without the use of AI: An evaluation of translation quality. LITE: Jurnal Bahasa, Sastra, Dan Budaya, 21(2), 452–468. https://doi.org/10.33633/lite.v21i2.14336

Yuxiu, Y. (2024). Application of translation technology based on AI in translation teaching. Systems and Soft Computing, 6. https://doi.org/10.1016/j.sasc.2024.200072

Zouhar, V., Kocmi, T., & Sachan, M. (2025). AI-Assisted Human Evaluation of Machine Translation. ArXiv Preprint ArXiv. https://doi.org/https://doi.org/10.48550/arXiv.2406.12419Focustolearnmore