

DeepL Translator in EFL Writing: Correlating User Experience with Students' Writing Achievement

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ABSTRACT

This study aims to find out the relationship between DeepL translator user experience and students' writing achievement at KH. A. Wahab Hasbullah University. This research is motivated by the increasing use of artificial intelligence-based translation tools at the academic level and the need to understand their influence on language learning, especially writing skills. This research uses a quantitative approach with a correlational research design. The data of this research were obtained through questionnaires and writing assignments from 33 respondents. The results of data analysis in this study using Pearson Product-Moment show that there is a strong and significant correlation between the experience of using DeepL Translator and students' writing achievement, with a correlation value of $r = 0.794$ and $\text{sig.} < 0.001$. The findings in this study show that students who gain positive experiences related to ease of use, accuracy, and from this positive experience also obtain higher writing scores. Nevertheless, researchers found negative effects such as over-reliance on automatic translation, as well as a lack of self-correction capabilities. It can be concluded that DeepL not only functions as a supporting translation tool, but DeepL can also make a positive contribution to students' writing achievement if used appropriately. Therefore, the use of DeepL needs to be critically integrated in learning activities to support the development of language awareness and writing independence.

Keywords: DeepL Translator; User Experience; Writing Achievement; Machine Translator; Correlation Study.

INTRODUCTION

Technology has become a vital part of aspects of human life, including education. Additionally, the substantial advancement of technology in Indonesia suggests that a diverse array of digital learning tools could improve students' abilities. Moreover, the findings reveal that one of the notable innovations in language learning is the rise of translation tools powered by Artificial Intelligence (AI), such as DeepL translator. Since the evidence shows that these tools offer quick, efficient, and precise translations, the results may indicate their growing popularity among students.

Technology connects users to translation resources. Furthermore, machine translations, which are a segment of AI technology, suggest that users can automatically translate words, phrases, sentences, and even entire paragraphs. Given the important findings, the evidence may imply that this technology is being extensively utilized in academic settings, particularly among students acquiring English as a foreign language. Words, clauses, sentences, and paragraphs are all capable of being translated using machine translation (Rahmawati et al., 2025). Students often rely on machine translation tools to support their studies, particularly in understanding and producing texts in English.

Despite the significant findings, the research may imply that writing is among the most essential skills in acquiring a new language. Writing emphasizes the importance of communication. Additionally, the data could suggest that writing services are not only a method of communication but also a means for learners to articulate their ideas, opinions, and knowledge in written form. Moreover, the primary conclusions may indicate that, as noted by Mantra et al. (2021), students' writing abilities are an essential part of their education, while Afdalia et al. (2023) stated that the students who have mastered their ability

to write are capable of using written symbols to represent words. Given that the evidence shows students can utilize translation tools to enhance their writing skills, the findings may suggest that learning to write with DeepL applications, known for their precise translation capabilities, could assist students in comprehending English texts effectively. Considering the significant findings, the research indicate that DeepL was able in translating phrases from Indonesian to English with accuracy (Munawwarah, 2024). These tools support students who are writing. When students are writing in a language such as English, they are often use DeepL to understanding difficult words or to correction the grammar. DeepL is a help. To students when they are trying to write in English. The students can use DeepL to get an understanding of the English texts and to improve their writing skills with DeepL.

Consequently, the data may imply that, as noted by Polakova et al. (2023), formal skills in writing are capable of being enhanced by using DeepL translator tools. Furthermore, the noteworthy findings of Payung (2025) it was discovered that students who utilized DeepL showed notable gains in their writing skills compared to those who did not.

Despite the primary results, the data could suggest that, even with its benefits, the use of machine translation tools poses certain challenges. Research indicates that over-reliance on these tools can hinder autonomy. Additionally, the findings might imply that students who depend heavily on these tools often face challenges in developing independent skills. Given that the evidence demonstrates translation is not merely transferring text from one language to another, the results might indicate that, according to Mohammed (2023), an automatic translation system can process the original word into several languages. Furthermore, the study may suggest that user experience appears to play an important role in determining how effectively students use the DeepL translator. In light of the significant findings, the evidence could demonstrate that positive experiences, such as ease of use, user-friendliness, and translator accuracy, might enhance students' motivation and performance in writing; the experience can affect the outcomes. Therefore, the results may indicate that negative experiences could lead to misuse or over-reliance on the tool.

Additionally, the key findings might suggest that it appears important to examine how students' experience with DeepL could relate to their writing achievement. Notwithstanding the significant evidence, the study may demonstrate that this research focuses on analyzing the correlation between DeepL translator user experience and students' writing achievement at KH. A. Wahab Hasbullah University, Tambakberas Jombang. Research shows experience influences performance.

METHOD

This study examines the relationships between students' written proficiency and the DeepL translator user experience, utilizing a quantitative approach with a correlation research design. Furthermore, the noteworthy results would suggest that this design can show the relationship between two or more variables. According to Abdul Mukhyi (2023), a correlation research design is used to determine the link between several variables. Furthermore, the results may indicate that 83 English Department students from KH. A. Wahab Hasbullah University made up the study population, with the evidence indicating that a sample of 33 students was selected at random. Taking into account the primary conclusions, the data may indicate that random sampling is a technique that guarantees each member of the population, as noted by Paramita et al. (2021), has an equal chance of being chosen for the research sample. The study data through two different instruments. Furthermore, the important outcomes might imply that the questionnaire could reflect students' experiences with the DeepL translator, addressing factors such as usability, user-friendliness, and perceived advantages, which were evaluated using a five-point Likert scale, the subsequent indicators have been identified.

Table 1 Questionnaire Indicator of DeepL Experience

Indicator	Variable	No. Item	Statement
DeepL translator user experience (X)	Accessibility	1	DeepL is available anytime and is free.
	Usage	2	DeepL helps with homework.
	Feature	3	DeepL has many features.
	Key features	4	The DeepL Writer feature is very helpful.
	Vocabulary	5	The synonym feature helps you understand words.
	Language structure	6	Autocorrect helps with sentence structure.
	Self confidence	7	DeepL boosts your confidence in writing.
	Ease of use	8	Easy to use for various types of text.
	Satisfaction	9	I'm satisfied with the translation.
	Vocabulary comprehension	10	Helps translate foreign words.

	Dependence	11	Relying on DeepL.
	Study habits	12	Reducing the use of dictionaries.
	Time efficiency	13	The translation process takes time.

This score serves to evaluate the extent of experience with DeepL, as measured by the research instrument, specifically a questionnaire. The following are several indicators for assessing the user experience with the DeepL Translator, as presented in Table 2:

Table 2 Alternative Answer Score of Questionnaire

Alternative Answer	Score
Strong Agree (SA)	5
Agree (A)	4
Moderate (M)	3
Disagree (D)	2
Strong Disagree (SDA)	1

Thus, the evidence may indicate that the writing test could serve as an assessment of students' writing skills, which were graded and converted to a scale ranging from 0 to 100. There exist multiple indicators that function as measurements for evaluating the writing assessment, such as topic sentence, supporting sentence, vocabulary, grammar, and Mechanics (spelling, Punctuation, Capitalization). In the evaluation criteria for the written examination, each component is assigned a score ranging from 1 to 5, and the final score is then calculated based on the total.

Despite the key findings, it appears that the instrument underwent testing for validity and reliability prior to data collection. The study indicates that the instrument has shown reliability. However, significant evidence may imply that the validity of the questionnaire items could be analyzed using Aiken's V formula, while Cronbach's Alpha was utilized to measure reliability. Considering that the results show Pearson's Product-Moment was the data analysis technique employed in this research, the evidence may suggest that this method could explore the relationship between two variables. Therefore, the notable findings may indicate that statistical analysis could yield results through SPSS version 27. Empirical evidence indicates that hypothesis testing involves a comparison between the observed correlation coefficient (r-observed) and the critical correlation coefficient (r-table). However, the principal findings imply that hypothesis testing may serve to ascertain the statistical significance of the relationship between variables. This determination is based on the comparison of the calculated correlation coefficient with the critical value, in conjunction with the significance level.

RESULT AND DISCUSSION

The following are the results of the Pearson product-moment. In analyzing the data, the researcher treated the DeepL translator user experience strategy as a variable (X) and students' writing achievement as a variable (Y).

Result

The following correlation test results are presented in a table:

Table 3 Correlation test

Correlations

		Questionnaire Score	Writing Score
Questionnaire Score	Pearson Correlation	1	,794**
	Sig. (2-tailed)		<,001
	N	33	33
Writing Score	Pearson Correlation	,794**	1
	Sig. (2-tailed)	<,001	
	N	33	33

** . Correlation is significant at the 0.01 level (2-tailed).

The findings from the Pearson Product-Moment correlation analysis indicate a strong positive association between DeepL translator user experience and students' writing achievement. The calculated correlation coefficient was $r = 0.794$, with a significance level (two-tailed) of $p < 0.001$, suggesting that the use of DeepL may significantly contribute to the enhancement of students' writing achievement. Furthermore, the evidence implies that this application not only facilitates accurate translations of words and sentences but also aids in the comprehension of grammatical structure, vocabulary usage, and overall sentence construction. Given that the results demonstrate an improvement in the grammatical accuracy of students' writing, it is essential to emphasize the importance of wise and critical utilization of the tool to prevent overdependence. The findings indicate a correlation between the use of DeepL and skill enhancement. However, the subsequent table values will be employed to categorize the relationship between the variables.

Table 4 Correlation Test Criteria (Pearson Coefficient)

r-value (absolute)	Relationship Strength Categories
0,00 – 0,20	Very weak / no correlation.
0,20 – 0,39	Weak.
0,40 – 0,59	Moderate/moderate.
0,60 – 0,79	Strong.
0,80 – 1,00	Very strong /very high.

With significant results suggesting a strong correlation between the independent variable (X), representing the user experience with the DeepL translator, and the dependent variable (y), which relates to students' writing achievement. Consequently, the evidence may imply that students perceive DeepL as user-friendly, capable of generating accurate translations, and providing valuable results. In light of these findings, the acceptance of the alternative hypothesis (H1) and the rejection of the null hypothesis (H0) appear to be substantiated, confirming the existence of a significant and strong relationship between the experience of using the DeepL translator and students' writing achievement.

Despite this outcome, the principal findings may indicate that the DeepL translator functions not only as a translation tool but also as an instrument for enhancing students' writing achievement. The data reveal that specific features of the application influence the outcomes. Additionally, the significant evidence suggests that attributes such as user-friendliness, translation accuracy, and contextual comprehension may assist students in refining their sentence structure and expanding their vocabulary. Nevertheless, the identified in this research include the potential for overreliance on machine translation and a deficiency in the ability to self-correct translation outputs.

Discussion

The findings of this study indicate a strong and statistically significant correlation between DeepL translator user experience and students' writing achievement, evidenced by a correlation coefficient of 0.794. This suggests that increased proficiency of utilized DeepL is associated with a heightened understanding of sentence structure and a more wise selection of vocabulary. Additionally, the accuracy of translations provided by DeepL may significantly enhance the quality of the students' writing, particularly regarding grammar, vocabulary, and coherence. Additionally, DeepL offers a number of capabilities that can be used as translation tools, including the ability to translate text, images, audio, and documents into 29 other languages (Sirait et al., 2023). May facilitate effective utilization of these tools by students.

Moreover, the results of this study appear to supports the findings of Arnita (2025), who said that employing DeepL to comprehend difficult academic terms from words, phrases, and sentences has a major positive impact on its users. The study findings are consistent with those of Hariro (2025), it demonstrates that DeepL translator is a very important, accurate, quick, and effective tool for translating academic texts. The evidence further implies that the use of DeepL provides students with an accessible translation tool that may enhance their writing skills. The results indicate that DeepL not only aids students in articulating their thoughts form their native language into English but also functions as a supportive resource in the writing process, aligning with Telaumbanua's (2024), which explains that DeepL translator is a highly precise language translation tool and a great tool for translating complicated documents.

Nevertheless, the research also identifies several challenges associated with the use of DeepL. Notably, the findings suggest a potential over-reliance on machine translation outputs, which may impede the development of critical thinking skills and independence in writing. Furthermore, some students may encounter difficulties in grasping the contextual facts of translations, potentially resulting in errors in sentence construction. Consequently, the evidence supports a wise use of DeepL as a supplementary tool rather than as the sole resource for writing.

CONCLUSIONS

The data indicate a strong and significant correlation. Nevertheless, the results may imply that the utilization of DeepL positively influences the enhancement of writing skills, especially regarding the accuracy of language translation and the structure of sentences. Furthermore, the substantial evidence could suggest that unwise usage might foster dependency and encourage students to develop critical thinking abilities. Considering that the findings suggested the careful integration of DeepL into the educational process, the principal conclusions may indicate that this study could result in optimal advantages.

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