



Elevating Translation Precision: Note-taking in Consecutive Interpreting across Proficiency Level

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Abstract:

This study investigates the relationship between note-taking detail, translation accuracy, and proficiency levels among ESL students engaged in consecutive interpreting. The primary aim is to determine how different levels of proficiency affect the detail of notes taken and the resulting accuracy of translations. Participants, categorized using CEFR test into beginner, intermediate, and advanced proficiency levels, were tasked with taking notes while interpreting a source speech. These notes were then analyzed for detail, and the subsequent translations were evaluated for accuracy using a predefined rubric. The analysis involved descriptive statistics to summarize the central tendencies and variability in note-taking detail and translation accuracy within each proficiency level. Additionally, Pearson correlation analysis was conducted to explore the relationship between note-taking detail and translation accuracy across all participants. The findings revealed that advanced students took significantly more detailed notes compared to beginners and intermediates. Furthermore, there was a positive correlation between the detail of note-taking and translation accuracy, indicating that more detailed notes led to more accurate translations. The value $r = 0.5266$ indicated a moderate positive linear relationship between proficiency level and keywords used in note-taking. This study also found the value $r = 0.5243$ indicating a moderate positive linear relationship between the number of relevant keywords and translation accuracy. The proficiency level moderated this relationship, with the impact of detailed note-taking on translation accuracy being more pronounced at higher proficiency levels.

Keywords: consecutive interpreting, language proficiency, note-taking, translation accuracy

1. INTRODUCTION

Consecutive interpreting (CI) is a complex linguistic skill that involves listening to a spoken message, comprehending it, and then rendering it in another language after the speaker has paused (Gile, 1995; Szabó, 2021; Garcia & Devesa, 2023; Kohn & Albl-Mikasa, 2021). While consecutive interpreting (CI) requires an interpreter to listen, comprehend, and render messages accurately and fluently in the target language, note-taking serves as a vital aid in this process, enabling the interpreter to retain key information, organize thoughts, and manage discourse cohesion. Moreover, note-taking technology such as TAI (Technology-Assisted Interpreting) might help the interpreter's work even though the technology still needs assessment (Nugrahani & Purnomo, 2022). Not only that, note-taking also assists the interpreter's memory (Sakamoto, 2011; Cai, et al, 2015; Jabagyhan, 2021; Mellinger, 2022). In other words, the interpreter must simultaneously listen to and comprehend the source language information, engage in logical analysis, maintain short-term memory, and take notes, all while continuing to listen to the speaker's subsequent information, then within a few seconds after the speaker concludes their speech, the source language information is required for interpretation (Nai, 2020). Here, working memory is very significant cognitive skill in the process of rendering message from source to target language (Lu, 2013; Doherty, et al, 2022; Hikmaharyanti, et al, 2023), it is because the result of message transferred exclusively considered equivalent in meaning (Ulwiyah, 2021). Moreover, working memory encourages people especially interpreters to stay focused (Marwati & Sastra, 2019) and since the process of rendering message is not only about language transfer (Harliani, 2019), the translation result is strongly considered as equivalent as what the target readers understand.

In note-taking, an interpreter is allowed to develop their own perceptions based on their needs and preferences (Stern, 2011; Hale & Martschuk, 2023). However, the seven principles of note-taking proposed by Rozan (1956) can serve as a useful reference when beginning to use notes in the process of listening to a speech before developing the perceptions. These principles include taking idea notes, using abbreviations, abbreviating linking words, indicating negation, underlining for emphasis, working down the page, and utilizing symbols. Those principles have not remained static but have been expanded upon and have inspired other practitioners and researchers to develop additional approaches. For example, some methods include dividing the page in half to encourage vertical note-taking or using the left margin for connecting words while reserving the main section of the page for important thoughts (Gillies, 2017; Szabó, 2021). In line with the principles, this study investigated quantitatively the correlation of proficiency level, note-taking detail and translation accuracy produced by novice interpreters, particularly ESL students. The first principle of taking important idea note was applied in this study to elicit whether students with higher proficiency levels achieved detailed note-taking and accurate translation or they might fail. Moreover, listening to essential keywords and then writing those on notes consider easier to conduct especially for novice before passing into the application of abbreviation and other principles. Further, many studies discuss Rozan's (1956) seven principles, but few examine their individual effects. This study focused on the principle of taking idea notes specifically on keywords, highlighting the need for future research on how different principles (e.g., abbreviations, negation, symbols) influence translation precision. Also, this study explored ESL students' proficiency level and how far they went through practicing note-taking task in CI for further skill development especially in translation accuracy.

2. LITERATURE REVIEW

Consecutive interpreting, where an interpreter listens to a segment of speech and then translates it after the speaker pauses, is a crucial skill in multilingual communication. Effective note-taking during consecutive interpreting is essential for retaining information and ensuring accurate translations (Wang & Wu, 2022). For ESL students, the challenge is twofold: they must not only master the art of interpreting but also overcome language proficiency barriers due to the fact that proficiency level is the significant factor supporting ESL students' performance in transferring message from one to another language (Bashori, 2021). Several studies highlight that high proficiency students tend to develop more structured and effective note-taking strategies, while lower proficiency students struggle with coherence and abbreviation use (Jia, 2023; Liu, 2023). This seemingly straightforward task can unravel into a labyrinth of challenges, hindering their efficacy and confidence in the interpreting process, especially for the students from mid and low achievers in general. Following that, Emilia et al (2011) discovered that students at one of the public universities in Bandung who excelled academically had relatively organized notes compared to mid and low achievers. Even though a 16-week teaching program was implemented, high achievers did not merely reproduce speech; instead, they synthesized and organized their notes effectively. Similarly, students enrolled in interpreting classes at Swadaya Gunung Jati University faced challenges when applying Rozan's (1956) note-taking principles. Among the seven principles, abbreviation was predominantly used during tests due to a lack of understanding of their implementation (Mahmud & Bhakti, 2022). This supports earlier findings that novice interpreters often rely on verbatim note-taking rather than abstracting key ideas, which can hinder overall interpreting efficiency (Zhou, 2023). Nevertheless, this technique proves challenging to implement, even for master's students possessing advanced levels of language acquisition (Chmiel, 2010).

On the other hand, as novices, students should be trained in one of the seven principles during each session to ensure a comprehensive understanding of proper note-taking techniques. These principles include noting the main ideas, abbreviating, linking concepts, negating irrelevant information, emphasizing key points, organizing information vertically, and shifting perspectives. Consequently, during interviews conducted by Mahmud & Bhakti (2022), students expressed confusion regarding the multitude of symbols and terms used in note taking. Further, Chen (2022) examined the skills and competencies needed for consecutive interpreting by collecting data from professional interpreters and students. Differences were found in note-taking and interpreting quality, with directionality playing a role. Professional interpreters showed higher writing speed and different patterns in note-taking. Areas needing attention in CI training were identified. Moreover, research by Jia (2023) suggested that students trained in note-taking demonstrated improved cognitive efficiency, better abbreviation use, and enhanced message fidelity, reinforcing the importance of structured note-taking instruction. Contrary to Chen's findings (2022), Khezerlou's research (2023) indicated the note-reading activities are faster to learn and process than the note-producing ones among the high-level students supported this condition and the student interpreters used a higher proportion of symbol forms than the professionals did in note taking. However, the use of symbols does not always correlate with improved translation accuracy, as noted by Liu (2023), who found that students still faced challenges with coherence and omission of key details. Once students grasp note-taking theory, listening becomes the primary method they can employ at the first-time practice. Their working memory catches the words and the ideas of speech delivery.

Moreover, study by Dam (2004) suggested that language proficiency significantly affects cognitive load and processing capacity during interpreting tasks, which in turn influences note-taking efficiency. Here, Liu (2023) had also explored the relationship between note-taking and interpreting quality in consecutive interpreting. The research suggested that in English-to-Chinese consecutive interpreting, students tend to favour English for note-taking, whereas Chinese is more commonly utilized in Chinese-to-English consecutive interpreting. Additionally, the study found that the quantity of symbols employed does not correlate with the interpreting quality. In contrast, Zhou (2023) found that trained students employed a higher number of abbreviations and symbols, suggesting that structured training can enhance efficiency in note-taking. Furthermore, from interviews with student participants, five issues were identified regarding their notes: omission of critical information, inconsistent abbreviations, lack of coherence, incomplete recording and interpretation of numerical data, and insufficient notation of dense information. Further, the research suggested by Jia (2023) that NT training improves interpreters' note-taking by increasing the quantity of notes and encouraging the use of efficient forms such as abbreviations and symbols. For Chinese-English interpreting, participants predominantly used Chinese units, with a shift towards abbreviations and symbols after training, while for English-Chinese interpreting, English notes were more common, but the use of Chinese words and abbreviations increased. Notes were mainly in the source language, though the target language's use increased after training, enhancing sense conversion and reducing cognitive load. Correlation analysis revealed that more notes were linked to better fidelity and delivery, with abbreviations and symbols particularly effective. This aligns with findings from Zhou (2023), who observed that trained students produced higher word counts and structured notes, demonstrating the role of training in refining note-taking strategies. The study highlights the need for targeted training on symbols and abbreviations and emphasizes improving listening skills before note-taking training.

In addition, another study discussing note-taking in consecutive interpreting is a study from Zhou (2023) and the findings revealed that the trained group produced a higher word count than the untrained group. Additionally, they employed a greater number of abbreviations, symbols, numbers, Chinese characters, and logical connectors than the two untrained students. Despite this, they wrote fewer complete words. The marked difference in performance between the groups implies that note-taking efficiency, which can be improved with practice, is closely associated with note-taking skills.

To support or even debate those previous research findings reviewed above, this study was conducted to examine how varying levels of English proficiency among ESL students influence their note-taking strategies in capturing and retaining only key ideas as the first strategy the novices do during interpretation sessions and the accuracy of their interpretations in consecutive interpreting. By analyzing the note-taking key ideas employed by students with different proficiency levels; this study aims to uncover translation accuracy done by the students. This study builds on previous findings by investigating whether early-stage ESL students benefit more from simplified note-taking techniques before advancing to abbreviation-heavy approaches, as suggested by Zhou (2023) and Jia (2023). This study not only contributes to a deeper understanding of the correlation between language proficiency and interpretative performance but also provides valuable insights for educators and trainers in developing more tailored and effective teaching methods for aspiring interpreters.

3. RESEARCH METHODOLOGY

This study employed a quantitative research design, which is a systematic approach used to investigate relationships and trends by collecting and analyzing numerical data. The primary objective was to examine how the language proficiency levels of ESL (English as a Second Language) students influence the accuracy of their note-taking during consecutive interpreting sessions. This research design is particularly suited for this purpose as it allows researcher to objectively measure variables and statistically analyse their interplay. By utilizing quantitative methods, the study aimed to provide precise and quantifiable insights into the impact of language proficiency on note-taking performance formulated in the following hypotheses:

Hypothesis 1: Higher proficiency levels are associated with more detailed note-taking. This hypothesis predicts that advanced participants take more detailed notes compared to intermediate and beginner participants.

Hypothesis 2: More detailed note-taking is associated with higher translation accuracy. This hypothesis suggests that participants who take more detailed notes produce more accurate translations.

The participants were 28 ESL sophomores enrolled in interpreting courses at one of private universities in Denpasar, selected to provide a comprehensive analysis of note-taking strategies in consecutive interpreting. The sample size was determined based on statistical considerations for correlation analysis, ensuring a sufficient number of data points for detecting relationships between proficiency levels, note-taking details, and translation accuracy. While larger samples are ideal for generalizability, similar sample sizes have been used in previous interpreting research involving cognitive and linguistic analysis (e.g., Jia, 2023; Zhou, 2023). Additionally, a minimum of 25-30 participants is commonly considered acceptable for correlation studies in applied linguistics and interpreting studies (Mackey & Gass, 2016).

To ensure balanced representation across proficiency levels, a stratified sampling technique was employed categorizing participants into Beginner (A1-A2), Intermediate (B1-B2), and Advanced (C1-C2) based on their performance in a CEFR-based proficiency test (<https://www.cefrrlevels.com/>). This method prevented skewed findings and allowed for a more equitable comparison of note-taking strategies across different proficiency levels. After classification, participants performed a note-taking task during consecutive interpreting to analyze their approaches and accuracy.

Data collection focused on three main variables: proficiency level, note-taking detail, and translation accuracy. Participants were classified based on their proficiency in the target language, determined through a standardized proficiency test. They were also asked to take notes and performed consecutive interpreting with 5-minute length of Indonesian source speech. The note-taking detail was quantified by counting the number of keywords they noted and highlighting the relevant key terms. The accuracy of the recorded oral translations to English was evaluated using a predefined rubric consisted of three criteria (fidelity, fluency, and structure) and each rated on Likert scale.

The data analysis was conducted in two main steps, descriptive statistics and correlation analysis. For each proficiency level, the mean and standard deviation of the note-taking detail and translation accuracy scores were calculated using Google Sheets and The Pearson correlation

coefficient was calculated to determine the relationship between note-taking detail and translation accuracy across all participants.

The results from the descriptive statistics provided insights into the central tendencies and variability of note-taking detail and translation accuracy within each proficiency level. The correlation analysis indicated the strength and direction of the relationship between note-taking detail and translation accuracy. By using this methodology, the study aimed to explore the relationships between proficiency levels, note-taking details, and translation accuracy, providing a clear and structured approach to understanding how these variables interact.

4. RESULTS

4.1. Hypothetical Data

This section presents the results of the analysis conducted to investigate the relationships between proficiency levels, note-taking detail, and translation accuracy. The analysis aims to test whether higher proficiency levels are associated with more detailed note-taking and whether more detailed note-taking is associated with higher translation accuracy. To examine these hypotheses, data was collected from participants categorized into three proficiency levels (beginner, intermediate, and advanced). Each participant's note-taking detail and translation accuracy were quantified and analyzed.

Table 1: Hypothetical Data

Proficiency Level	Number of Words	Relevant Keywords	Translation Accuracy
Beginner (A2)	35	10	5
Beginner (A2)	64	19	4
Beginner (A2)	61	23	3
Beginner (A2)	74	19	4
Beginner (A2)	93	21	5
Beginner (A2)	61	17	6
Intermediate (B1)	100	29	10
Intermediate (B1)	102	26	9
Intermediate (B1)	45	18	7
Intermediate (B1)	65	20	8
Intermediate (B1)	74	25	7
Intermediate (B1)	58	22	9
Intermediate (B1)	69	26	9
Intermediate (B1)	50	25	7
Intermediate (B2)	94	26	10
Intermediate (B2)	99	25	12
Intermediate (B2)	59	24	10
Intermediate (B2)	57	26	11
Intermediate (B2)	55	24	9

Intermediate (B2)	68	24	10
Intermediate (B2)	62	25	9
Intermediate (B2)	65	21	11
Advanced (C1)	78	27	12
Advanced (C1)	52	23	13
Advanced (C1)	66	24	12
Advanced (C1)	51	24	14
Advanced (C1)	48	24	14
Advanced (C1)	59	23	13

On average, beginner translations had fewer words and relevant keywords, with lower translation accuracy scores while Intermediate B1 learners generally produced more words and relevant keywords compared to beginners, with improved translation accuracy. In addition, Intermediate B2 learners continued to show an increase in the number of relevant keywords and translation accuracy compared to B1 learners. Overall, Advanced learners demonstrated the highest translation accuracy, maintaining a relatively high number of relevant keywords with fewer fluctuations.

4.2 Descriptive Statistics

Descriptive statistics were calculated to provide an overview of the central tendencies and variability of note-taking detail and translation accuracy within each proficiency level. This included computing the mean and standard deviation for both variables across the three proficiency levels.

Table 2: Descriptive Statistics

Proficiency Level	Number of Words	Relevant Keywords	Translation Accuracy
Beginner (A2)	$\mu = 65.4$ $\sigma = 18.9$	$\mu = 18.4$ $\sigma = 4.5$	$\mu = 4.2$ $\sigma = 1.1$
Intermediate (B1-B2)	$\mu = 70.1$ $\sigma = 18.5$	$\mu = 24.1$ $\sigma = 2.7$	$\mu = 9.3$ $\sigma = 1.5$
Advanced (C1)	$\mu = 53.5$ $\sigma = 7.3$	$\mu = 23.5$ $\sigma = 0.5$	$\mu = 13.5$ $\sigma = 0.8$

In number of words, Intermediate (B1-B2) level has the highest mean number of words (70.1), indicating that on average, learners at this level produce the most words. Meanwhile, Advanced (C1) level has the lowest mean number of words (53.5) with a relatively low standard deviation (7.3), indicating more consistency in the number of words produced. On the other hand, Beginner (A2) level has a mean number of words (65.4) that is lower than Intermediate but higher than Advanced, with the highest standard deviation (18.9), indicating more variability among learners at this level.

For the relevant keywords, Intermediate (B1-B2) level has the highest mean number of key terms (24.1), suggesting that learners at this level use the most key terms in their translations. However, Advanced (C1) level is slightly lower with a mean of 23.5 key terms but shows very low variability ($\sigma =$

0.5), indicating high consistency in the use of key terms. Following that, Beginner (A2) level has the lowest mean number of key terms (18.4) with higher variability ($\sigma = 4.5$) compared to Intermediate and Advanced levels.

Contrary to two statistics (number of words and relevant keywords), Advanced (C1) level has the highest mean translation accuracy (13.5), indicating that learners at this level have the best translation accuracy and Intermediate (B1-B2) level has a mean translation accuracy of 9.3, which is higher than Beginner is but lower than Advanced, with slightly higher variability ($\sigma = 1.5$). Moreover, Beginner (A2) level has the lowest mean translation accuracy (4.2) with relatively high variability ($\sigma = 1.1$). The bar chart below provides clear visual representation of this descriptive statistics finding.

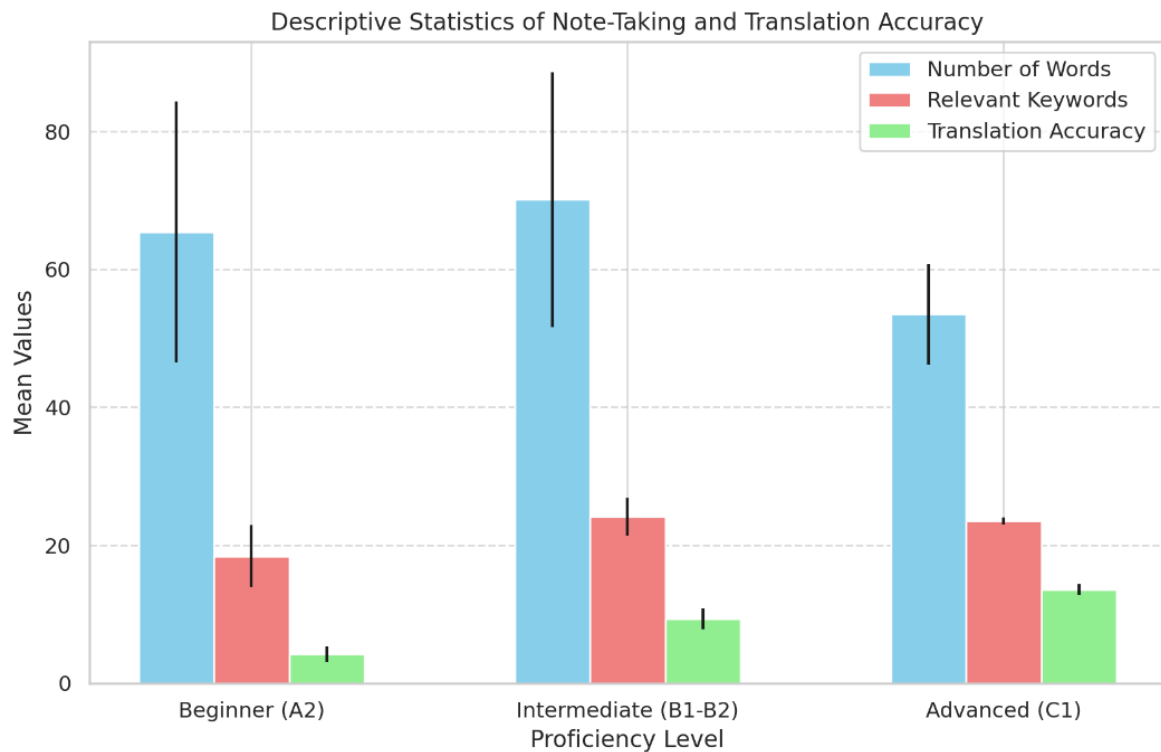


Figure 1. Descriptive Statistics

Overall, Intermediate learners produce the most words on average, while Advanced learners are more consistent but produce fewer words. Intermediate learners use the key terms, with Advanced learners showing high consistency. Advanced learners have the highest accuracy with low variability, followed by Intermediate learners, and then Beginners with the lowest accuracy. These statistics indicate that as proficiency level increases, learners tend to use fewer but more accurate words and keywords in their translations. Advanced learners are more consistent in their use of key terms and have the highest translation accuracy, which also means they have strong working memory although they did not take note as many words as other levels.

4.3 Correlation Analysis

Pearson correlation analysis was performed to explore the strength and direction of the relationship between note-taking detail and translation accuracy. This analysis aimed to test whether more detailed note-taking is associated with higher translation accuracy across all proficiency levels. The

following sections present the detailed results of these analyses, providing insights into the validity of the hypotheses and the relationships between the key variables.

Table 3: Correlation between proficiency level and note-taking detail

Category	Parameter	Value of proficiency level and number of words	Value of proficiency level and relevant keywords
X values (Proficiency Level)	Sum ($\sum x$)	56	56
	Mean (M_x)	2	2
	Sum of Squared Deviations (SS_x)	12	12
Y values (Note-taking detail)	Sum ($\sum x$)	1864	640
	Mean (M_x)	66.571	22.857
	Sum of Squared Deviations (SS_x)	8168.857	389.429
Combined X & Y	Number of Data Points (N)	28	28
	Sum of Product of Deviations ($\sum(X - M_x)(Y - M_y)$)	-34	36

Pearson correlation coefficient r between proficiency level and number of words was given by:

$$r = \frac{(X - M_x)(Y - M_y)}{\sqrt{SS_x} \sqrt{SS_y}} = \frac{-34}{\sqrt{12} \sqrt{8168.857}} \approx -0.1086$$

The value of the correlation coefficient r ranges between -1 and 1. An r value close to 1 indicates a strong positive linear relationship, while an r value close to -1 indicates a strong negative linear relationship. An r value close to 0 indicates no linear relationship. In the case of $r = -0.1086$, this value is close to 0, suggesting a very weak negative linear relationship between proficiency level and the number of words. The possible implications encompassed the very weak negative correlation suggests that there is no significant linear relationship between proficiency level and the number of words used. Higher proficiency might slightly correlate with using fewer words, possibly due to more concise expression, but this trend is very weak. This weak correlation suggests that proficiency level has little to no linear impact on the number of words used. Meanwhile, Pearson correlation coefficient r between relevant keywords and proficiency level was given by:

$$r = \frac{(X - M_x)(Y - M_y)}{\sqrt{SS_x} \sqrt{SS_y}} = \frac{36}{\sqrt{12} \sqrt{389.429}} \approx 0.5266$$

The value $r = 0.5266$ indicates a moderate positive linear relationship between proficiency level and keywords used in note-taking, suggesting that as proficiency levels increase, the use of relevant keywords tends to increase as well. This moderate positive correlation implies a somewhat meaningful relationship, where higher proficiency might correlate with the use of more relevant keywords, indicating greater fluency. Therefore, proficiency level could be a reasonable predictor of the number of keywords used, as higher proficiency levels are associated with using more relevant keywords.

Based on the analyzed data, it can infer that students with higher proficiency levels tend to take more detailed notes. This is evidenced by their use of a greater number of relevant key terms, even though the total number of words might not significantly increase. Advanced proficiency levels are associated

with higher translation accuracy and more consistent use of key terms, supporting the hypothesis that higher proficiency correlates with more detailed and effective note-taking. As a result, the concise use of words at higher proficiency levels indicates a focus on key points and relevant information, aligning with the idea of detailed and precise note-taking. Therefore, proficiency level could be an important factor in predicting the quality and detail of notes taken by individuals.

Following that, detailed note-taking is strongly associated with higher translation accuracy. This hypothesis posits that participants who engage in more precise note-taking are likely to produce more accurate translations. The rationale behind this correlation is that detailed notes provide a comprehensive reference that aids in capturing the nuances and complexities of the original text. Table 3 below shows correlation value of note-taking details in number of words and relevant keywords and translation accuracy.

Table 4: Correlation note-taking detail and translation accuracy

Category	Parameter	Value of number of words and translation accuracy	Value of relevant keywords and translation accuracy
X values (Number of Words)	Sum ($\sum x$)	1864	640
	Mean (M_x)	66.571	22.857
	Sum of Squared Deviations (SS_x)	8168.857	389.429
Y values (Translation Accuracy)	Sum ($\sum y$)	253	253
	Mean (M_y)	9.036	9.036
	Sum of Squared Deviations (SS_y)	260.964	260.964
Combined X & Y	Number of Data Points (N)	28	28
	Sum of Product of Deviations ($\sum (X - M_x)(Y - M_y)$)	12.429	167.143

Pearson correlation coefficient r between number of words and translation accuracy was given by:

$$r = \frac{(\sum (X - M_x)(Y - M_y))}{\sqrt{SS_x} \sqrt{SS_y}} = \frac{12.429}{\sqrt{8168.857} \sqrt{260.964}} \approx 0.0085$$

The value $r = 0.0085$ is very close to 0, indicating almost no linear relationship between the number of words and translation accuracy. This suggests that changes in the number of words are not linearly related to changes in translation accuracy. The very weak correlation implies no significant linear relationship between these two variables, meaning that knowing the number of words does not help in predicting translation accuracy. Since the correlation is nearly zero, it suggests that the number of words and translation accuracy might be independent of each other, with changes in one variable not predicting change in the other. On the one hand, Pearson correlation coefficient r between relevant keywords and translation accuracy was given by:

$$r = \frac{(\sum (X - M_x)(Y - M_y))}{\sqrt{SS_x} \sqrt{SS_y}} = \frac{167.143}{\sqrt{389.429} \sqrt{260.964}} \approx 0.5243$$

The value $r = 0.5243$ indicates a moderate positive linear relationship between the number of relevant keywords and translation accuracy. This suggests that as the number of relevant

keywords increases, translation accuracy tends to increase as well. The moderate positive correlation implies a meaningful relationship between these two variables, indicating that higher usage of relevant keywords is associated with higher translation accuracy, demonstrating a positive trend. The correlation coefficient signifies that knowing the number of relevant keywords provides moderate predictive power for translation accuracy. This moderate correlation suggests that as the number of relevant keywords increases, translation accuracy tends to improve, making the number of relevant keywords a reasonable predictor for translation accuracy.

Overall, the results support Hypothesis 2, indicating that there is a moderate positive relationship between detailed note-taking and translation accuracy. Higher levels of detailed note-taking are associated with higher translation accuracy, suggesting that more thorough note-taking practices contribute to better translation outcomes. While the relationship is not perfect, it provides meaningful insights for students, indicating that investing time and effort into detailed note-taking could improve overall translation quality.

5. DISCUSSION

This study has highlighted note-taking detail and translation precision across EFL proficiency level. The technique of note-taking here is inspired by Rozan's principle in consecutive interpreting note-taking (1956) focusing on noting key ideas. To begin, a minimal negative correlation between proficiency level and word count, suggesting a lack of significant linear relationship between these factors. While individuals with higher proficiency may slightly use fewer words, this association is notably weak, indicating that proficiency level has a limited linear impact on word usage. This may reflect the ability of proficient individuals to express them more concisely. However, this finding contrasts with Zhou's (2023) study, which revealed that subjects with higher language proficiency produced more words compared to untrained subjects. This contradiction suggests that note-taking tendencies may not only depend on proficiency but also on interpreting training and task familiarity. Further research is needed to examine whether specific training interventions or individual cognitive styles influence note-taking behavior across proficiency levels.

Conversely, this study reveals a moderate positive correlation between proficiency level and the incorporation of key terms, indicating a meaningful connection. Individuals with higher proficiency levels tend to utilize relevant keywords more frequently, suggesting enhanced fluency. This implies that proficiency level can predict the frequency of key term usage, with proficient individuals more likely to employ pertinent keywords. Thus, proficiency level serves as a reliable predictor for key term usage, highlighting its role in enhancing the precision and effectiveness of communication.

In addition, this study on note-taking detail and translation accuracy reveals mixed results. On one hand, there is a negligible correlation between detailed note-taking of word numbers and translation accuracy, suggesting a lack of significant linear relationship between these variables. This indicates that changes in detailed note-taking habits do not reliably predict improvements in translation accuracy. It is in line with Liu et al (2023) investigation that note-taking in large number of words had no link with interpreting quality both in small or big sample size. Moreover, abbreviations and symbols have been found to enhance fidelity and meaning transfer

in the target language (Jia, 2023), suggesting that note-taking strategies should focus on content efficiency rather than mere volume.

However, an intriguing finding shows a moderate positive correlation between detailed note-taking on relevant keywords and translation accuracy. Higher levels of detailed note-taking are associated with enhanced translation accuracy, indicating a perceptible trend. This aligns with Dam's (2004) research, which highlighted the significant influence of language proficiency on consecutive interpreting processes and a study from Chen (2022) and Khezerlou (2023) found that professional group which obviously has high proficiency level produced information completeness in the translation result followed by fluency of delivery. This suggests that structured keyword-based note-taking may contribute to higher translation accuracy by improving information retention and retrieval, reinforcing its role in interpreter training programs.

These findings contrast with the conclusions drawn by Emilia et al. (2011), pointing to varying perspectives on the relationship between note-taking strategies and translation outcomes. One possible explanation for these discrepancies is the differing methodologies and assessment criteria across studies. While some studies prioritize linguistic completeness, others may focus on efficiency or memory retention, leading to variations in observed correlations. This highlights the need for further research to explore how different note-taking strategies interact with cognitive load and working memory capacity during interpreting tasks.

Despite these contributions, this study has limitations that should be acknowledged. First, the sample size, though sufficient for correlation analysis, limits broader generalizability. Future research should incorporate larger and more diverse participant groups, including professional interpreters and bilingual speakers from various backgrounds. Second, while this study focuses on written note-taking strategies, it does not account for individual cognitive styles or memory retention capabilities, which could influence interpreting performance. Lastly, the 5-minute speech length used in the interpreting task may not fully reflect real-world interpreting conditions, where speeches vary in length and complexity. Future studies should explore different task durations and their effects on note-taking efficiency and translation accuracy.

In summary, this study reinforces the role of proficiency in influencing note-taking strategies, particularly the use of key terms, and highlights the importance of structured note-taking in improving translation accuracy. Notably, in this study, the correlation coefficient underscores that knowledge of detailed note-taking habits provides moderate predictive capability for translation accuracy. Moreover, the moderate correlation suggests that as detailed note-taking intensifies, translation accuracy tends to rise as well, presenting detailed note-taking as a reasonable predictor for translation accuracy. These findings suggest that interpreter training programs should emphasize selective keyword-based note-taking rather than excessive word recording.

6. CONCLUSION

This study investigated the hypotheses that higher proficiency levels are associated with more detailed note-taking and that more detailed note-taking correlates with higher translation accuracy. By observing 28 sophomores who took notes in Indonesian during a 5-minute consecutive interpreting task and recording their oral translation accuracy in English, the study found that proficiency level had a negligible impact on the number of words used. However, it moderately predicted the use of key terms, underscoring its importance in facilitating fluent and effective communication.

In contrast, detailed note-taking did not exhibit a strictly linear correlation with translation accuracy, but a moderate positive relationship was observed, suggesting that structured note-taking can enhance interpreting outcomes. These findings underscore the importance of training novice interpreters in effective note-taking strategies, focusing on identifying and organizing key terms rather than merely increasing the number of words recorded. Interpreter training programs should integrate structured exercises that emphasize selective note-taking, highlighting relevant keywords application. Therefore, both proficiency level and detailed note-taking hold predictive value for different aspects of language use and translation accuracy, respectively, warranting their consideration in language education and translation training.

From a practical perspective, this study highlights the need for interpreting curricula to incorporate explicit note-taking instruction tailored to different proficiency levels. Trainers and educators should consider developing interactive training modules that progressively introduce note-taking principles, allowing students to build their skills step-by-step. By integrating these insights, interpreter training programs can enhance student performance and better prepare them for the demands of professional interpreting. Furthermore, it is strongly recommended to conduct a study encompassing a broad range of subjects and languages, incorporating diverse themes of speech.

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