

## The Interplay between Note-Taking Features and Consecutive Interpreting Fluency: Trainee Interpreters in Focus<sup>1</sup>

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### Abstract

This study examines the relationship between interpreting fluency and note-taking features among 13 undergraduate students majoring in English translation. Adopting a quantitative approach, the research investigates four questions: the preference for language choice in note-taking, the tendency to use specific forms (symbols, abbreviations, and full forms) over others, the effects of preferred forms on interpreting fluency, and the correlation between note quantity and fluency. The findings reveal that trainees predominantly favor full forms over symbols and abbreviations, which were used the least. Furthermore, a significant positive correlation exists between the use of full forms and symbols and interpreting fluency, while a positive correlation is observed between note quantity and fluency, suggesting that a higher quantity of notes is associated with higher fluency scores. Additionally, no significant relationship is found between the language of notes and interpreting fluency. These results highlight a link between effective note-taking strategies and interpreting performance, suggesting areas for potential focus in training. This study contributes to understanding how specific note-taking features are associated with the quality of consecutive interpreting, particularly within the context of English-Persian language pairings.

**Keywords:** Consecutive interpreting, Interpreting fluency, Note-taking, Note features

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## 1. Introduction

The skills necessary for interpretation can be categorized as general and mode-specific skills. The former includes a broad spectrum of skills essential for various interpreting modes, such as analytic listening, while the latter comprises skills pertinent to specific modes, like note-taking, which is particularly crucial in consecutive interpreting (CI) and often absent in other interpreting modes (Bartłomiejczyk & Stachowiak-Szymczak, 2022).

CI has two essential phases: comprehension and production (Gile, 2009). During the comprehension phase, interpreters use cognitive processes including auditory processing, short-term memory functions, and note-taking to grasp the content and structure of the message (Pöchhacker, 2012). The subsequent phase is production, during which interpreters use their notes as external memory aids to assist in conveying meaning from the source language (SL) to the target language (TL). The reformulation process necessitates retrieving information from memory and generating the interpreted message, which entails considerable cognitive effort (Dam, 2010; Bartłomiejczyk & Stachowiak-Szymczak, 2022).

Gile (1997) considers note-taking an essential intermediary phase linking information encoding and decoding in CI. Similarly, Stenzl (2002) identifies note-taking as a coding mechanism that enables interpreters to contextualize SL effectively. Gile's (1997) Effort Models further clarify that interpreting demands substantial cognitive resources, as interpreters employ written notes, symbols, and signs as 'codes' to facilitate subsequent retrieval. Following the initial encoding, these codes are connected to their semantic meanings and associated linguistic structures retained in memory. However, interpreters face the persistent challenge of memory overload, making effective note-taking methods crucial for performance (Baselli, 2012, as cited in Shafiei et al., 2017). Note-taking skills not only enhance recall of spoken content but also minimize distractions, thereby improving concentration—a proactive benefit that may reduce interpreter anxiety.

These cognitive benefits of note-taking ultimately manifest in the interpreter's output, where fluency plays a critical role. Direct comparison of source and target texts for accuracy assessment is not feasible in practice; instead, audiences frequently evaluate interpreting quality based on their perceptions of the target text's presentation and content (Rennert, 2010). Macías (2007, as cited in Cardoen, 2012) conducted a study on simultaneous interpreting, revealing that target text fluency significantly affects listeners' perceptions, alongside factors such as accurate meaning

reproduction and overall comprehensibility. This underscores the importance of understanding how note-taking features—by supporting cognitive processing—may influence the fluency that audiences use as a quality criterion.

Empirical research on CI note-taking has examined language choice, form preferences, and output quality, yet findings remain inconsistent. Studies on language choice have produced contradictory recommendations: some favor the TL (Herbert, 1952; Rozan, 1956; Seleskovitch, 1975), others the SL (Ilg, 1988; Alexieva, 1993; Gile, 1997), and still others suggest individual variation (Dam, 2004; Matyssek, 2019). Regarding form, researchers consistently find that interpreters prefer full words over symbols (Dai & Xu, 2007; Dam, 2004; Liu, 2010; Wang et al., 2010), though evidence on abbreviations remains contradictory. While Dam et al. (2005), Dam (2007) and Cardoen (2012) have examined the relationship between note-taking and output quality—with Cardoen specifically addressing fluency—such studies remain rare, and their findings have not been replicated across different language pairs or populations. However, no empirical study has systematically examined how note-taking form, quantity, and language relate to fluency in English-Persian CI — a context that differs typologically and pedagogically from the European language pairs dominating the literature. The present study addresses this gap by investigating these relationships among trainee interpreters. Consequently, four research questions were posed:

RQ1: Which form (full words, abbreviations, symbols) do trainee interpreters prefer to use in their notation?

RQ2: Is there a significant relationship between the form of notes and interpreting fluency?

RQ3: Is there a significant relationship between note quantity and interpreting fluency?

RQ4: Is there a significant relationship between the language of notes and interpreting fluency?

## **2. Literature Review**

Note-taking in CI has generated extensive scholarly attention (Dam, 2004; Chen, 2016), with research evolving from prescriptive manuals to empirical investigations of actual interpreter behaviors. This review is organized thematically around the key features investigated in the present study.

### *2.1 Functions and Cognitive Role of Notes*

There is broad consensus that note-taking serves as an essential external memory aid bridging the comprehension and production phases of CI (Gile, 1997,

2009; Pöchhacker, 2012). Gile (1997) conceptualizes note-taking as an intermediary phase linking encoding and decoding, while Stenzl (2002) describes it as a coding mechanism for contextualizing SL. The Effort Models (Gile, 1997, 2009) posit that notes function as 'codes' facilitating subsequent retrieval. However, notes impose cognitive load during both encoding and decoding, creating a tension between benefits and costs (Baselli, 2012, as cited in Shafiei et al., 2017).

## *2.2 Language Choice in Note-Taking*

Research on language choice has produced conflicting recommendations and findings. Prescriptive authorities are divided: some advocate TL note-taking to facilitate transcending SL structure (Herbert, 1952; Rozan, 1956; Seleskovitch, 1975; Seleskovitch & Lederer, 1989), while others recommend SL notation to avoid additional cognitive load during comprehension (Ilg, 1988; Alexieva, 1993; Gile, 1997). A third perspective leaves choice to individual preference (Matyssek, 2019).

Empirical findings are similarly inconsistent. Dam (2004) found language selection is primarily influenced by language status rather than task relevance. However, Szabó (2006) found Hungarian L1-English L2 interpreters favored English (their L2) irrespective of direction, only partially supporting Dam. Chen (2016) reported similar findings for Chinese-English interpreters. González (2012) found that as competence rises, interpreters transition from SL to TL notation. These contradictions suggest language choice is influenced by multiple interacting factors. Kohn and Albl-Mikasa (2002, p. 258) argue that "note-taking is not governed by any obligatory rules... anything that supports its function... is admissible."

## *2.3 Note Forms: Symbols, Abbreviations, and Full Words*

There is consistent evidence that interpreters prefer linguistic elements—particularly full words—over symbols (Dam, 2004; Lung, 2003; Dai & Xu, 2007; Liu, 2010; Wang et al., 2010). However, findings on abbreviations versus full forms are contradictory. Gile (2009) contends that symbols and abbreviations diminish cognitive load while preserving mnemonic function, and Rozan (1956) advocated abbreviating long words to save time. Cardoen (2012) notes that trainees may lack skill in symbol creation, prompting reliance on cognitively more accessible full forms.

## *2.4 Note Quantity and Interpreting Performance*

The relationship between note quantity and quality has received less attention than language choice or form preferences. Dam et al. (2005) and Dam (2007) found increased note quantity was associated with enhanced accuracy. Cardoen (2012)

extended this to fluency, proposing that while more notes may improve accuracy, they may impede fluency due to cognitive effort required to read extensive notations. Cardoen established three working hypotheses informing the present study: (1) more notes enhance accuracy but impede fluency; (2) more full words enhance fluency but impede accuracy; and (3) more abbreviations enhance accuracy but impede fluency.

### *2.5 Fluency in Interpreting*

Despite its recognized importance, fluency has received considerably less empirical attention than accuracy or content preservation—a significant gap given that fluency critically shapes audience perceptions of interpreting quality. Rennert (2010) found audiences evaluate interpreting based on target text presentation and fluency rather than through direct source-target comparison. Macías (2007, as cited in Cardoen, 2012) similarly demonstrated that target text fluency significantly affects listeners' perceptions in simultaneous interpreting. Cardoen (2012) represents a rare exception examining the relationship between note-taking features and fluency, though these findings have not been systematically replicated across different language pairs.

### *2.6 Research Gap: The English-Persian Context*

The preceding review reveals persistent gaps. Empirical research has focused predominantly on European language pairs. Fluency remains under-researched relative to accuracy. Findings on language choice and form preferences are contradictory, suggesting context-specific factors influence optimal notation.

These gaps are acute for English-Persian CI. Marani and Heidari Tabrizi (2017) conducted one of the few studies on Iranian interpreters, revealing most had not taken note-taking courses, seldom employed symbols, and generally wrote in complete words, predominantly in the TL. However, their study did not systematically examine relationships between note features and fluency. No empirical study has investigated how note-taking form, quantity, and language correlate with fluency in English-Persian CI. The present study addresses this gap by examining the relationship between note-taking features and interpreting fluency among English-Persian trainee interpreters.

## **3. Methodology**

The present study employed a quantitative approach to examine the relationship between note-taking features and the fluency of CI output among trainee interpreters.

### *3.1. Participants*

Participants were recruited through an open invitation extended to all students enrolled in the 'Consecutive Interpreting' course at Shahid Bahonar University of Kerman. This course is offered as part of the undergraduate (BA) program in Translation Studies in Iran. Of the 40 students approached, 13 (6 males, 7 females; age range 19 to 21) provided informed consent and volunteered to participate. All participants designated Persian as their A-language and English as their B-language.

### *3.2. Instruments*

To gather the required data, the participants undertook a CI exam. The researchers evaluated the students' CI skills through a 5-minute speech consisting of 385 words, obtained from Voice of America (VOA) English news. To ensure the material was appropriately pitched for the participants' proficiency level, two experienced interpreting instructors independently rated the speech for lexical difficulty, syntactic complexity, and delivery speed on a 5-point Likert scale. Their inter-rater agreement was high (Cronbach's  $\alpha = .89$ ), and they unanimously classified the text as being of moderate difficulty, which aligned with the training materials used during the classroom CI course.

As the aim of this study was to assess trainee interpreters within their educational context rather than to simulate professional market conditions, the test speech was deliberately matched in lexical difficulty, syntactic complexity, and delivery speed to the material used throughout the semester's CI training, ensuring ecological validity for this population.

### *3.3. Procedure*

The data were collected from a CI exam administered at the end of the semester. Prior to the exam, all participants had completed 16 CI training sessions (90 minutes each) as part of the regular undergraduate Translation Studies curriculum. All sessions were delivered by the same experienced CI instructor to ensure uniformity of instruction, with course content and materials identical for all participants based on Setton and Dawrant (2016a, 2016b). Rather than being confined to a specific session, note-taking instruction following Gillies (2017) was integrated throughout all 16 sessions, with symbol development, abbreviation systems, and verticality progressively reinforced through regular in-class feedback.

Participants' CI performances were audio-recorded for transcription, and their notes were collected for analysis. Fluency was assessed through speaking rate and articulation rate using Cardoen's (2012) formulas. These two measures were selected to maintain direct comparability with Cardoen's (2012) framework and because they are among the most commonly reported temporal variables in interpreting process research (Pöchhacker, 2016). However, it is acknowledged that other fluency dimensions such as pause frequency, filled pauses, and repairs were not examined, which constitutes a limitation of the present study. Note analysis involved counting full words, symbols, and abbreviations based on Cardoen's (2012) definitions.

Recordings were carefully transcribed, with commas and periods added for precision. Speaking rate was calculated in words per minute, excluding note-taking time. Articulation rate was calculated by dividing total words by total speech duration excluding pauses. Only complete words were included; false starts, repetitions, hesitations, and incomplete words were omitted. Following Dam (2007), silent pauses exceeding thresholds of 1.40 seconds (grammatical) and 0.56 seconds (non-grammatical) were identified using Praat software, and their total duration was used to compute articulation rate.

### 3.4. Data Analysis

Statistical analyses were conducted using SPSS 23. To facilitate comparison with Cardoen (2012), identical parameters were used. Cardoen (2012) defines full words as those not abbreviated, including inflected and uninflected forms; a superscript "2" for plural is categorized as a symbol. Abbreviations signify only a portion of a word (e.g., 'L' for 'ladies'). Symbols encompass non-linguistic elements such as arrows, lines, plus signs, and colons. Note quantity, one of the principal independent variables in the present study, was calculated as follows: Note Quantity = (Total TT words) / (Number of full words + abbreviations + symbols).

Bivariate correlations were examined using the Pearson product-moment correlation coefficient ( $r$ ), as the data were numeric and met the assumption of normality. Linearity and homoscedasticity were evaluated through visual inspection of scatterplots, which showed no violations of the assumptions (i.e., no clear curved patterns for linearity and no funnel-shaped distributions for homoscedasticity). Normality was assessed using the Shapiro–Wilk test, whose findings are reported below. The significance level was set at  $p < 0.05$ . Effect sizes are reported using the correlation coefficient itself, interpreted according to Cohen's (1988) guidelines

(small:  $|r| \approx .10$ , medium:  $|r| \approx .30$ , large:  $|r| \approx .50$ ). 95% confidence intervals around the correlation coefficients are also reported.

#### 4. Results

The first research question of the study addresses the preferred forms of notation used by trainee interpreters, focusing on their employment of full words, abbreviations, and symbols. Descriptive statistics, including range, mean, and standard deviation, were run to answer this question. The normality assumption was checked prior to analysis, and the findings are presented below.

**Table 1:** Tests of Normality of Form Components

|               | Shapiro-Wilk |    |      |
|---------------|--------------|----|------|
|               | Statistic    | df | Sig. |
| Full words    | .91          | 13 | .18  |
| Abbreviations | .63          | 13 | .1   |
| Symbols       | .98          | 13 | .9   |

The results do not show significant deviations from normality ( $p > .05$ ). Therefore, it is safe to conduct parametric analyses in terms of normality assumption.

**Table 2:** Descriptive Statistics of Form Components Used by Trainee Interpreters

|               | N  | Range | Minimum | Maximum | Mean  | SD    | Percentage |
|---------------|----|-------|---------|---------|-------|-------|------------|
| Full words    | 13 | 61    | 27      | 88      | 68.15 | 17.43 | 77.4       |
| Abbreviations | 13 | 34    | 8       | 42      | 16.38 | 9.09  | 39         |
| Symbols       | 13 | 74    | 3       | 77      | 36.61 | 20.42 | 47.5       |

Table 2 demonstrates that, among the three components of notation, full words were used most frequently by trainee interpreters ( $M = 68.15$ ,  $SD = 17.43$ ), whereas abbreviations were employed least frequently ( $M = 16.38$ ,  $SD = 9.09$ ).

The second research question sought to find whether there was any significant relationship between the form of notes and interpreting fluency. A Pearson product-moment correlation was run to compare the form of notes and interpreting fluency.

**Table 3:** Descriptive Statistics of Form Components and Interpreting Fluency of Trainee Interpreters

|                      | Mean  | SD    | N  |
|----------------------|-------|-------|----|
| Full words           | 68.15 | 17.43 | 13 |
| Abbreviations        | 16.38 | 9.09  | 13 |
| Symbols              | 36.61 | 20.42 | 13 |
| Interpreting fluency | 86.91 | 11.74 | 13 |

As the above table shows, full word had the highest mean among the form components ( $M = 68.15$ ,  $SD = 17.43$ ) and the mean score of interpreting fluency was 86.91.

**Table 4:** Correlation between Form Components and Interpreting Fluency of Trainee Interpreters

|                      |                         | full word    | abbreviation  | symbol       |
|----------------------|-------------------------|--------------|---------------|--------------|
| Interpreting fluency | Pearson Correlation     | .62*         | .02           | .58*         |
|                      | Sig. (2-tailed)         | .02          | .94           | .03          |
|                      | N                       | 13           | 13            | 13           |
|                      | 95% confidence interval | [0.10, 0.87] | [-0.54, 0.56] | [0.04, 0.86] |

\*. Correlation is significant at the 0.05 level (2-tailed).

There was a statistically large and significant relationship between the interpreting fluency scores of the trainee interpreters and the form components of full forms ( $r = .62$ ,  $p = .02$ ) and symbols ( $r = .58$ ,  $p = .03$ ). In other words, higher frequencies of full forms and symbols were associated with higher fluency scores.

The third research question examined the relationship between note quantity and interpreting fluency. A Pearson product-moment correlation was run to compare note quantity and interpreting fluency.

**Table 5:** Descriptive Statistics of Note Quantity and Interpreting Fluency of Trainee Interpreters

|                      | Mean  | SD    | N  |
|----------------------|-------|-------|----|
| Interpreting fluency | 86.91 | 11.74 | 13 |
| Note quantity        | 3.53  | 1.42  | 13 |

The mean of interpreting fluency was 86.91 and the note quantity had the mean of 3.53. The following table shows if the relationship between these two variables is significant.

**Table 6:** Correlation between Note Quantity and Interpreting Fluency of Trainee Interpreters

|               |                     | Interpreting fluency | Note quantity | 95% confidence interval |
|---------------|---------------------|----------------------|---------------|-------------------------|
| Note quantity | Pearson Correlation | -.56*                | 1             | [-.58, .05]             |
|               | Sig. (2-tailed)     | .04                  |               |                         |
|               | N                   | 13                   | 13            |                         |

\*. Correlation is significant at the 0.05 level (2-tailed).

A statistically significant negative correlation was found between note quantity and interpreting fluency ( $r = -.56$ ,  $p = .04$ ). Because higher values on the note quantity ratio reflect fewer notes taken, this finding suggests that taking a greater number of notes was associated with higher interpreting fluency among trainee interpreters.

The last question aimed to find relationship between the language of notes and interpreting fluency. A point-biserial correlation was run to determine the relationship between these two variables.

**Table 7:** Descriptive Statistics of Language of Notes and Interpreting Fluency of Trainee Interpreters

|                      | Mean  | SD    | N  |
|----------------------|-------|-------|----|
| Interpreting fluency | 86.91 | 11.74 | 13 |
| Language of notes    | 1.5   | .51   | 13 |

The mean of interpreting fluency was 86.91 and the language of notes variable had the mean of 1.5. The following table shows if the relationship between these two variables is significant.

**Table 8:** Correlation between Language of Notes and Interpreting Fluency of Trainee Interpreters

|                      |                     | Language of note | 95%<br>confidence<br>interval |
|----------------------|---------------------|------------------|-------------------------------|
| Interpreting fluency | Pearson Correlation | -.41             | [-0.78, 0.18]                 |
|                      | Sig. (2-tailed)     | .16              |                               |
|                      | N                   | 13               |                               |

There was no significant correlation between the language of notes and interpreting fluency ( $r = -.41$ ,  $p = .16$ ).

## 5. Discussion and Conclusion

This study aims to enhance the existing literature by examining the correlation between interpreting fluency and the note-taking features of CI trainee interpreters. The study investigates this relationship from four angles: the inclination towards language selection in note-taking, the preference for particular forms (symbols, abbreviations, full words) over alternatives, the relationship between these forms and interpreting fluency, and the association between note quantity and interpreting fluency.

The results reveal that trainee interpreters predominantly used full words, whereas abbreviations were employed the least. This preference for full words suggests that trainees might find it cognitively simpler to process and remember information when it is fully articulated, at least for short or lexically simple stretches of speech; sustaining this strategy across an entire discourse, however, is unlikely to be cognitively viable even for professional interpreters. Such a tendency is consistent with earlier studies on trainee interpreters (Dai & Xu, 2007; Liu, 2010; Wang et al., 2010). However, it contradicts the Effort Model for CI (Gile, 2009) and Rozan's (1956) minimalist approach, both of which promote a note-taking technique that prioritizes the condensation of words into ideas and their subsequent representation through symbols to enhance effective CI. Rozan (1956) posits that long words (exceeding four to five letters) have to be reduced to save time and effort in note-

taking. This conclusion can be substantiated by Cardoen's (2012) elucidations. As the present study specifically targets trainee interpreters at an early stage of note-taking skill development, this profile reflects the intended population of interest rather than a shortcoming of participant selection; consequently, the findings are not intended to generalize beyond trainee interpreters at a comparable stage of training. Their inclination to apply full phrases may arise from insufficient skill in symbol creation, prompting them to eschew symbols that would hinder their message retention. This convergence suggests that the underlying cognitive mechanisms identified here may not be idiosyncratic to this sample, though the generalizability of these findings is further limited by the small sample size, single institutional context, and the specific language pair and direction examined. Longitudinal designs tracking how note-taking features and fluency co-develop over the course of interpreter training would also meaningfully advance the field. Replication studies should include interpreters at multiple proficiency levels, diverse institutional contexts, multiple source text genres, and both directions of the English-Persian pair, as well as other typologically distant language combinations, to determine which of the present findings reflect learner-universal patterns versus features specific to this context. Additionally, given the relatively small sample size of the present study, future studies should be conducted with larger participant samples to enhance the generalizability and statistical power of the findings.

The findings indicate a statistically significant link between participants' interpreting fluency ratings and their use of full forms and symbols. The data specifically reveal that a greater frequency of full forms and symbols in note-taking is positively correlated with higher interpreting fluency scores. The findings concerning the initial research question indicate that trainee interpreters favor complete words, whereas the second question implies that the integration of both complete words and symbols is associated with improved interpreting fluency. This suggests that while trainees prefer complete words for clarity, their fluency may benefit from using symbols into their notes.

A statistically significant negative correlation was found between note quantity ratio and interpreting fluency ( $r = -.56$ ,  $p = .04$ ). Because higher values on the note quantity ratio reflect fewer notes taken, this finding suggests that taking a greater number of notes was associated with higher interpreting fluency among trainee interpreters. This result is contrary to the recommendations of Gile (2009) and Gillies (2017), who advocate for minimal note-taking to reduce cognitive load. However, for trainee interpreters, who have not yet fully automatized comprehension and

production processes, a higher quantity of notes may serve as an external memory aid that reduces cognitive strain during target text production. It is important to note that the note quantity ratio and interpreting fluency share variance with the total length of the translated text. Therefore, the significant negative correlation observed may be partly attributable to this methodological overlap rather than a purely substantive relationship.

Finally, no significant correlation was found between the language of notes and interpreting fluency. Interpreters possess multiple alternatives for note-taking languages, encompassing the SL, the TL, a blend of both, their native language (which may be the SL, TL, or another language), or even a tertiary language. Dam (2004) demonstrates that some interpreters favor note-taking in the target language (e.g., Herbert 1952; Rozan 1956; Seleskovitch 1975; Seleskovitch & Lederer, 1989), as this method promotes transcending the superficial structure of the SL, thereby enhancing text processing. Conversely, employing the SL (Ilg, 1988; Alexieva, 1993) may result in cognitive overload during the preliminary stage of CI, which is affected by the speaker rather than the production phase due to the language conversion that occurs (Dam, 2004). Additionally, Baselli (2012) posits that when the SL coincides with the A-language, the latter should be favored for note-taking. However, in the absence of this alignment, the B-language (perhaps the SL) emerges as the favored option. Błaszczuk and Hanusiak (2010) contend that the formation of 'mixed' notes results from the selection of languages for particular concepts or expressions, grounded in their intrinsic qualities or linguistic properties.

Notwithstanding its intriguing findings, this study possesses limitations that warrant acknowledgment. The sample size of thirteen participants, while consistent with comparable studies in interpreting research (Chen, 2016; Cardoen, 2012; Dam, 2004; Dai & Xu, 2007), constrains the direct generalizability of the findings to a wider or more diverse population of trainee interpreters. The findings should therefore be understood as exploratory rather than definitive. A primary limitation of this study is its correlational design. While we have identified significant associations between note-taking features (quantity and form) and interpreting fluency, we cannot, and do not, claim that these features cause changes in fluency. The negative correlation between note quantity and fluency, for example, could be explained by alternative factors, such as less skilled interpreters relying more heavily on extensive notes, or greater cognitive load reducing both note-taking efficiency and fluency. Future experimental or longitudinal research is necessary to explore the causal mechanisms underlying these observed relationships. The study examined only one direction of

interpretation (English into Persian). Directionality is known to influence note-taking language choice and cognitive load (Dam, 2004; Szabó, 2006), and the present findings may not hold for the reverse direction (Persian into English). This represents a boundary condition that future research should address.

Additional measurement and procedural limitations also apply. The fluency measures employed — speaking rate and articulation rate — are objective and replicable but do not capture audience perception. Research has shown that listener judgements of fluency do not always align with objective rate measures (Rennert, 2010), meaning that the correlations reported here may not fully predict how a real audience would evaluate the quality of the interpreting. Future studies should complement objective metrics with validated listener rating scales. Specifically, a multi-dimensional quality assessment instrument — such as an adapted version of the ALC quality criteria checklist or the Rennert (2010) listener perception scale — should be administered alongside objective rate measures in future replications, so that delivery-level fluency findings can be situated within the broader picture of perceived interpreting quality. This would allow researchers to determine whether the note-taking features that predict faster speech rates also predict positive audience evaluations, or whether the two dimensions dissociate.

In conclusion, this study found that full words were the predominant note form among trainees, with both full words and symbols positively associated with fluency, while a greater number of notes was associated with higher interpreting fluency, and note language showed no significant relationship. Theoretically, the findings provide preliminary evidence consistent with Cardoen's (2012) framework in a new language pair and trainee population, and challenge prescriptive symbol-heavy approaches by revealing that trainees may prioritize full words for cognitive clarity during early skill acquisition. The fluency costs associated with excessive note-taking may be interpreted in light of cognitive load theory. Pedagogically, the findings suggest that interpreter training may benefit from explicitly teaching symbols and abbreviations through sustained practice, discouraging verbatim or overly extensive notes, and helping students develop a personalized, efficient notation system with targeted feedback on note form and quantity.

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