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**| RESEARCH ARTICLE**

**Technical Term Recall in Translation Training: Can Personality Preferences Explain Why Some Students Skip and Others Guess?**

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**| ABSTRACT**

The relationship between individual personality differences and terminology retention remains a critical, yet overlooked, factor in translator training. This study investigates whether MBTI preferences correlate with short-term English-Arabic technical term recall. Using a sample of 45 translation students, the research analyzed quiz performance alongside behavioral indicators like item-skipping and handwriting readability. Results indicate that recall success involves a combination of memory and written control, with higher scores strongly correlating with fewer omissions. At the dichotomy level, a distinct pattern emerged: Intuitive students favored partial responses, while Sensing students favored omission. This suggests that personality does not necessarily dictate how much a student remembers, but rather how they respond when retrieval fails. These distinctions offer new avenues for assessment design, suggesting that "blank spaces" on a test may provide specific diagnostic data for personalized training.

**| KEYWORDS**

Technical translation, terminology retention, MBTI, recall, translator training, response patterns, omission behavior

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**Introduction**

Translators, like other professionals, differ in expertise, background, and cognitive disposition. In technical translation, these differences matter because the task requires fast, accurate recall of specialized equivalents that resist paraphrase without precision loss. Terminology in such settings functions as part of the translator's broader competence profile, encompassing documentation practices, domain learning, and the ability to situate terms within relevant conceptual systems during problem solving (Montero Martínez & Faber, 2009; PACTE Group, 2005). Yet terminology competence is often discussed as primarily a matter of resources and training exposure, while the cognitive aspects of retention, recall, and response behavior have received limited attention in translation classrooms.

Cognitive Translation Studies has shown that translation performance is sensitive to memory constraints, particularly when translators must hold linguistic material in mind while processing meaning, selecting equivalents, and producing text. Working memory functions as a measurable limitation with consequences for speed and quality in translation tasks (Li, 2021). Memory effects, however, interact with how individuals approach uncertainty during production; how they manage partial recall and decide whether to attempt an answer or omit it. In classroom terminology assessments, such decisions become visible through patterns of skipped items, partial forms, and spelling errors. These patterns can be treated as behavioral indicators of retrieval strategy and production control, not simply as mistakes to be penalized.

How does a translator's personality shape their work? In translation studies, this question often leads back to the MBTI and its categorization of cognitive preferences (Jung, 1921/1971; The Myers-Briggs Company, 2025). The Sensing-Intuition dimension, in particular, offers a window into how individuals process new terminology. Sensing types typically ground

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themselves in practical, immediate data; by contrast, Intuitive types prioritize the patterns inferred from their surroundings (Myers et al., 1998). Despite the instrument's contested status in psychology—which demands we use "proportionate inference" (Zárate-Torres & Correa, 2023)—it remains a potent descriptive tool. It helps us see translation not as a hierarchy of competence, but as a field of varying approaches. Within translation studies, prior findings suggest these approaches manifest as distinct strengths and vulnerabilities. For instance, Karimnia and Mahjubi (2013) reported differences between intuitive and sensing participants in English-Persian translation performance, with patterns reflecting different approaches to cohesion, meaning transfer, and higher-level textual handling.

In Arabic-English contexts, related work has reported differences between S and N preferences in error profiles and performance outcomes, although the direction and magnitude of such differences vary by task, genre, and scoring framework (Al-Ismael, 2022). Even when personality-linked patterns appear in translation product quality, however, the question of terminology memorization remains underdeveloped. Thus, it can be asserted that technical terminology recall is a narrower, more controllable target than full-text translation and for that reason offers a useful testing ground.

This study examines whether MBTI preferences are associated with differences in the memorization and recall of English-Arabic technical terminology among undergraduate translation students. Two specialized domains were selected for their relevance to contemporary translation training: psychometrics, including terms linked to personality assessment, and automotive technology, including terms related to electric vehicles. Participants studied bilingual glossaries and then completed a 30-item terminology quiz in which each correct English-Arabic pair received 0.5 points (full score 15). In addition to total recall score, the study treats omission and production indicators as analytically meaningful outcomes: skipped items, incomplete responses, spelling errors, and handwriting readability.

The study contributes to terminology pedagogy by examining whether response-pattern analysis, distinguishing omission from partial attempt, can serve diagnostic purposes in translator training.

Drawing on prior research linking personality preferences to translation performance and on cognitive accounts of retrieval under production constraints, this study addresses three exploratory questions:

1. To what extent, if any, do MBTI dichotomy preferences show associations with technical terminology recall scores in this sample?
2. Do patterns of response behavior under retrieval difficulty, specifically omission versus partial attempted retrieval, differ across MBTI preferences, and if so, which dichotomies show the clearest contrasts?
3. How do production-quality indicators (skipped items, incomplete responses, spelling mistakes, handwriting readability) relate to recall performance, and do any associations with personality preferences emerge?

## **Literature Review**

Technical translation is constrained by terminology in ways that many other genres are not. In specialized settings, terminological choices function as designations within established conceptual systems rather than as flexible lexical alternatives. Terminology competence is therefore treated as a core component of translator competence and a central target of translator training. Montero Martínez and Faber (2009) argued that terminology pedagogy becomes meaningful when it is translator-oriented, embedded in specialized communication, and connected to the ability to manage terms as knowledge units rather than as isolated word lists.

Competence-oriented frameworks in Translation Studies support this position by treating translation performance as the outcome of interrelated sub-competences and strategic control. The PACTE Group (2005) conceptualized translation competence as a system that includes instrumental skills and psycho-physiological components, with strategic competence guiding decision-making and problem-solving under task constraints. Hurtado Albir (2015) noted that translator training should operationalize competence through tasks and assessment procedures that capture both outcomes and the competencies that enable them. From this perspective, terminology learning and retention can serve as a measurable competence indicator, particularly when assessment captures how students respond under retrieval difficulty.

Applied research on translator education has also examined terminology learning through instructional interventions and performance-linked outcomes. Vasheghani Farahani and Amiri (2019) investigated the impact of teaching specialized terminology on translation performance in a corpus-based instructional context and reported improvement in students' translation-related outcomes after targeted terminology teaching. This line of research supports a premise that is often assumed rather than demonstrated: specialized terminology learning can be deliberately taught, tested, and linked to performance indicators in translator education.

The measurement of retention itself has received attention in adjacent fields. Hummel (2010) examined translation tasks and short-term L2 vocabulary retention, reporting that translation as an activity can shape learning outcomes relative to alternative task types. Although this work is situated within language learning research rather than translation assessment frameworks, it carries an implication for translator education: when learners must retrieve and produce equivalents, recall performance becomes sensitive to depth of processing and to the response strategy adopted under assessment conditions.

Al-Ismail (2017) offers a relevant precedent, as the dissertation centers on terminology competence acquisition and examines how pedagogical factors can support translation learners' comprehension and recall of specialized terminology. The dissertation's synthesis of memory-related constructs provides a framework for understanding why terminology recall tasks capture more than exposure, specifically, how recall is shaped by cognitive constraints and learning conditions.

A smaller body of research has examined whether personality-linked preferences are associated with systematic differences in translation performance. Much of this work relies on the MBTI, particularly the Sensing-Intuition dimension, because it reflects preferred modes of taking in information and recognizing patterns. Hubscher-Davidson (2009) investigated individual differences in translation performance and reported that intuitive participants achieved stronger outcomes than sensing participants, with markers noting differences in meaning transfer and stylistic handling. Karimnia and Mahjubi (2013) reported that personality-related differences were more visible in expressive or literary translation than in other text types. Shaki and Khoshsaligheh (2017) extended this line of inquiry in an English-Persian context, finding that intuitive-thinking profiles showed an advantage in several comparisons.

Most MBTI-oriented translation studies have focused on full-text translation quality, where multiple competencies are entangled: comprehension, transfer, revision, and discourse-level control. Comparatively little is known about whether personality preferences relate to the memorization and recall of technical terminology, even though technical translation frequently requires rapid and precise retrieval of specialized equivalents. This gap matters methodologically because terminology recall tasks narrow the interpretive space and allow clearer observation of retrieval behavior.

The present study builds on terminology pedagogy and competence-based training frameworks while drawing cautiously on personality-oriented translation research. It examines whether MBTI preferences are associated with differences in technical term recall and response behavior. By combining a terminology retention score with indicators of response patterning (skipped items, incomplete answers, spelling mistakes, and handwriting readability) the study seeks to clarify how individual differences shape both retention outcomes and the behavioral form of retrieval difficulty. The following section describes the sample, instruments, and analytic procedures used to pursue this aim.

## **Methodology**

### ***Participants and Context***

The study included 45 undergraduate students enrolled in the B.A. in English Language and Translation program (Level 4-5). Participation was voluntary by signing a consent form, and students completed the memorization task and quiz during a supervised in-class session. For analysis and reporting, participants were treated as a single sample.

The sample size of 45 participants reflects the practical constraints of classroom-based research conducted within intact course sections. The distribution across MBTI dichotomies was uneven: Introversion ( $n = 32$ ) exceeded Extraversion ( $n = 13$ ), and Sensing ( $n = 37$ ) substantially exceeded Intuition ( $n = 8$ ). This imbalance is consistent with population base rates, as Sensing preferences predominate in most samples (Myers et al., 1998), but it limits the inferential power of comparisons involving Intuition. Accordingly, dichotomy-level analyses involving S-N are treated as exploratory, and effect sizes are reported to facilitate interpretation and future meta-analytic synthesis. The study does not claim to have detected small or moderate effects for dichotomies with uneven distributions; rather, it identifies patterns that warrant replication with larger, more balanced samples.

### ***Personality Assessment***

Participants' personality types were determined using the official Myers-Briggs Type Indicator, Step I (Form M), administered earlier in the semester by a certified MBTI practitioner. Form M yields a four-letter type classification based on preferences across the four dichotomies: E-I, S-N, T-F, and J-P.

### ***Material***

Students received a 30-item terminology list presented in table format, with English terms paired with Arabic equivalents. The list included technical terms drawn from two specialized areas: psychometrics and the automotive domain (electric-vehicle-related terminology). This bounded set of items was designed for focused memorization and recall testing.

### **Procedure**

The procedure consisted of a single in-class sequence. Students were given one hour to study the 30-term list and prepare for an immediate recall quiz. The quiz was administered under supervision, and students were not permitted to use phones, dictionaries, or other external resources. Only students who agreed to participate completed the quiz and were included in the dataset.

### **Scoring and Operational Definitions**

The terminology quiz contained 30 items. Each correctly recalled English-Arabic pair was awarded 0.5 points, producing a full total score of 15. Four additional performance indicators were recorded for each participant:

**Skipped items.** A response was recorded as skipped when it was either blank or explicitly marked "I don't know."

**Incomplete responses.** A response was recorded as incomplete when a participant produced a partial Arabic term, omitted a required component, used a morphologically incomplete form, or wrote an unclear response indicating attempted retrieval that could not be credited as complete.

**Spelling mistakes.** Spelling mistakes were counted per error instance rather than per item; a single response could therefore contribute multiple spelling errors.

**Handwriting readability.** Handwriting readability was evaluated by two examiners using a 0-10 rating scale. Each examiner reviewed all 45 response sheets; discrepancies were resolved through discussion, yielding a single consensus score per participant. Because independent ratings were not preserved prior to consensus, formal inter-rater reliability coefficients (e.g., ICC, Cohen's kappa) could not be calculated. This constitutes a methodological limitation, and findings involving handwriting readability should be interpreted with this constraint in mind.

### **Data Analysis Overview**

The analysis proceeded in two stages. The primary analysis examined associations among the five outcome variables (total score, skipped items, incomplete responses, spelling mistakes, and handwriting readability) using Spearman correlations, treating total score (0-15) as the central retention outcome. The secondary analysis was exploratory: Mann-Whitney U tests compared each outcome variable across the four MBTI dichotomies to identify whether personality preferences were associated with recall performance or response behavior under retrieval difficulty. This two-stage structure reflects the study's priorities; the correlational patterns among outcomes are treated as the more stable findings, while the dichotomy-level comparisons are interpreted as preliminary observations subject to the sample-size and distributional constraints described below.

Post-hoc sensitivity analysis (G\*Power 3.1; Faul et al., 2007) indicated that with  $\alpha = .05$  and power = .80, the Mann-Whitney U comparison for S-N ( $n = 37$  vs.  $n = 8$ ) could reliably detect only effects of  $d \geq 1.10$ , a very large effect by conventional standards. The study was therefore not powered to detect small or moderate S-N effects. This limitation is acknowledged throughout the Results and Discussion.

Given the exploratory nature of the study and the number of comparisons conducted across four dichotomies and five outcome variables, no correction for multiple comparisons (e.g., Bonferroni, false discovery rate) was applied. Results reaching  $p < .05$  are interpreted as suggestive patterns warranting replication rather than as confirmed effects. This approach is consistent with recommendations for exploratory research, where overly conservative corrections may obscure potentially meaningful patterns that merit further investigation (Rothman, 1990). Effect sizes are reported for all comparisons to support interpretation independent of p-values and sample size.

## **Results**

### **Sample Overview and MBTI Distribution**

All 45 cases were retained in the pooled dataset. MBTI types were recorded as four-letter classifications and analyzed primarily at the dichotomy level. The distribution across dichotomies is summarized in Table 1.

**Table 1***MBTI Dichotomy Distribution (N = 45)*

Dichotomy	Preference	n	%
E-I	Extraversion	13	29
	Introversion	32	71
S-N	Sensing	37	82
	Intuition	8	18
T-F	Thinking	30	67
	Feeling	15	33
J-P	Judging	21	47
	Perceiving	24	53

**Overall Recall Performance and Auxiliary Indicators**

Performance showed substantial variability. Descriptive statistics for all outcome variables are presented in Table 2.

**Table 2***Descriptive Statistics for Outcome Variables (N = 45)*

Variable	M	SD	Range
Recall score (0-15)	8.18	3.00	1.00-14.00
Skipped items	2.29	3.16	0-14
Incomplete responses	0.84	1.61	0-8
Spelling mistakes	17.16	7.93	2-40
Handwriting readability (0-10)	5.36	3.09	0-10

**Primary Findings: Associations Among Score, Omission, and Production Quality**

Several variables were non-normally distributed and included outliers; associations were therefore examined using Spearman's rho. The correlation matrix is presented in Table 3. Higher scores were associated with fewer skipped items ( $\rho = -.45$ ,  $p = .002$ ), indicating that stronger recall co-occurred with lower omission rates. Score also correlated positively with handwriting readability ( $\rho = .38$ ,  $p = .009$ ). Handwriting readability correlated negatively with spelling mistakes ( $\rho = -.40$ ,  $p = .007$ ). Skipped items also correlated negatively with handwriting readability ( $\rho = -.30$ ,  $p = .048$ ), suggesting that participants who omitted more items tended to have less legible handwriting. Other associations were weaker and did not reach statistical significance.

**Table 3***Spearman Correlation Matrix for Outcome Variables (N = 45)*

Variable	1	2	3	4	5
1. Score	—				
2. Skipped	-.45**	—			
3. Incomplete	-.26	.12	—		
4. Spelling	-.24	-.05	-.06	—	
5. Handwriting	.38**	-.30*	-.02	-.40**	—

Note. \*  $p < .05$ , \*\*  $p < .01$

**Exploratory Findings: MBTI Dichotomy Comparisons**

Given the small subgroup sizes for some dichotomies (particularly N), group comparisons used Mann-Whitney U tests (two-sided). Effect sizes are reported as rank-biserial correlation ( $r_{rb}$ ).

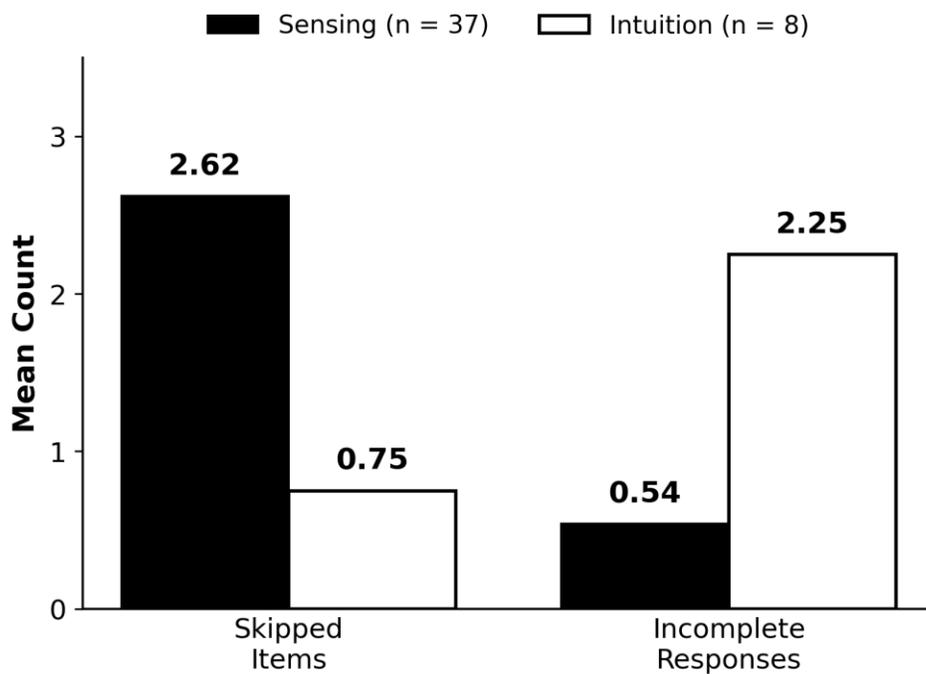
**Sensing Versus Intuition (S/N)**

Mean recall scores were similar for S and N participants: S ( $n = 37$ )  $M = 8.26$ ,  $SD = 3.20$ ; N ( $n = 8$ )  $M = 7.81$ ,  $SD = 1.98$ ,  $U = 136.0$ ,  $p = .732$ ,  $r_{rb} = -.08$ .

A suggestive pattern emerged in how retrieval difficulty manifested. The eight Intuitive participants produced more incomplete responses than the 37 Sensing participants (N:  $M = 2.25$ ,  $SD = 2.66$ ; S:  $M = 0.54$ ,  $SD = 1.12$ ;  $U = 225.0$ ,  $p = .010$ ,  $r_{rb} = .52$ ). This medium-to-large effect size should be interpreted cautiously given the small Intuition subgroup. Skipped items showed the opposite directional tendency: Intuitive participants skipped fewer items than Sensing participants, though this difference did not reach statistical significance (N:  $M = 0.75$ ,  $SD = 1.16$ ; S:  $M = 2.62$ ,  $SD = 3.36$ ;  $U = 96.0$ ,  $p = .111$ ,  $r_{rb} = -.35$ ). This crossover pattern is illustrated in Figure 1.

**Figure 1**

*Mean Skipped Items and Incomplete Responses by Sensing-Intuition Preference*



*Note. Error bars not shown due to small Intuition subgroup ( $n = 8$ ).*

Taken together, these patterns suggest that the Sensing-Intuition contrast in this sample appeared more clearly in response patterning than in aggregate recall. The implications of this observation are examined in the Discussion.

**Thinking Versus Feeling (T/F)**

Feeling participants obtained a higher mean score than Thinking participants, though the difference was not statistically significant: F ( $n = 15$ )  $M = 9.07$ ,  $SD = 2.95$  vs. T ( $n = 30$ )  $M = 7.73$ ,  $SD = 2.98$ ,  $U = 283.0$ ,  $p = .165$ ,  $r_{rb} = .26$ . Two auxiliary indicators showed trend-level differences. Feeling participants produced fewer spelling errors: F  $M = 13.60$ ,  $SD = 6.76$  vs. T  $M = 18.93$ ,  $SD = 7.98$ ,  $U = 146.5$ ,  $p = .060$ ,  $r_{rb} = -.35$ . They also showed higher handwriting readability: F  $M = 6.60$ ,  $SD = 2.61$  vs. T  $M = 4.73$ ,  $SD = 3.16$ ,  $U = 300.5$ ,  $p = .069$ ,  $r_{rb} = .34$ . These patterns suggest that any T/F differences in recall may overlap with written production quality.

### **Extraversion Versus Introversion (E/I)**

No meaningful E/I differences were observed in total score: I (n = 32) M = 8.20, SD = 2.56 vs. E (n = 13) M = 8.12, SD = 4.03, U = 215.0, p = .870,  $r_{rb}$  = .03. Other indicators showed similarly small differences.

### **Judging Versus Perceiving (J/P)**

Perceiving participants had a higher mean score than Judging participants, though the difference was not statistically significant: P (n = 24) M = 8.65, SD = 2.47 vs. J (n = 21) M = 7.64, SD = 3.50, U = 302.5, p = .254,  $r_{rb}$  = .20. Handwriting readability trended higher for J participants (M = 5.90) than P participants (M = 4.88), but this difference was also not significant: U = 201.5, p = .252.

### **Type-Level Patterns (Descriptive)**

Type-level results are reported descriptively due to uneven cell sizes. The most frequent types were ISTP (n = 11) and ISTJ (n = 7), followed by ISFP (n = 5), ESFJ (n = 4), and INTP (n = 4). Among types with  $n \geq 3$ , mean scores ranged from 4.17/15 (ESTJ, n = 3) to 10.67/15 (ISFJ, n = 3). These values are not used for inferential claims but help contextualize the classroom composition.

### **Discussion**

The findings indicate that technical terminology recall among the participating translation students varied considerably, and that this variation is not attributable to a single personality dimension. Two interrelated patterns emerged. First, recall scores were associated with response behavior and production quality, suggesting that the quiz measured more than memory alone. Second, personality preferences appeared more clearly in the manner in which recall difficulty manifested than in aggregate scores. These observations carry relevance for terminology assessment in technical translation training, where competence involves not only knowing terms but also retrieving and producing them accurately under time constraints (Montero Martínez & Faber, 2009).

### **Recall Score as a Combined Construct**

Higher scores were associated with fewer skipped items, indicating that stronger performance co-occurred with lower omission rates (Table 3). Scores also correlated positively with handwriting readability, and readability was inversely associated with spelling mistakes. These associations are consistent with the view that terminology quiz outcomes in classroom settings partly reflect written production quality alongside retrieval success.

This observation aligns with competence-based frameworks that conceptualize translation performance as the outcome of interrelated sub-competences rather than isolated abilities. The PACTE Group (2005) includes psycho-physiological components within their competence model, implying that performance on any translation-related task reflects more than the targeted cognitive skill. Hurtado Albir (2015) similarly argued that assessment in translator training should capture the competencies that enable performance. The present findings operationalize this perspective: a quiz designed to measure retention also captures variance attributable to handwriting and omission tendencies. Instructors interpreting such scores as pure memory measures may be conflating distinct competence components.

It should be noted that the findings do not imply that handwriting causes better memory. They do suggest that terminology testing in translator training often measures retrieval success alongside the ability to externalize recall through accurate written forms. Future research might separate these components by using typed responses or recognition formats when the goal is to isolate retention.

### **Sensing and Intuition: Exploratory Patterns in Response Strategy**

The clearest exploratory pattern involved the Sensing-Intuition dimension. Total recall scores did not differ significantly between the two groups, though the small Intuition subgroup (n = 8) limits the interpretability of this null result. The groups did, however, differ in how retrieval difficulty appeared in responses (Figure 1): Intuitive participants produced significantly more incomplete answers, while Sensing participants showed a directional tendency toward more skipped items. This combination raises the possibility that the relevant distinction between S and N in this sample concerns how retrieval difficulty is handled rather than how much is remembered. Whether this pattern generalizes beyond the present sample remains an open question.

This interpretation does not require assuming superior ability for either group. It describes different response tendencies under uncertainty, which aligns with how MBTI preferences are framed as habitual approaches rather than ability levels (Myers et al., 1998; The Myers-Briggs Company, 2025).

Prior MBTI-oriented research in translation studies has typically examined full-text translation quality. Hubscher-Davidson (2009) found that Intuitive translators achieved higher quality ratings, with differences appearing in meaning transfer

and stylistic handling. Karimnia and Mahjubi (2013) reported similar patterns in literary translation, and Shaki and Khoshaligheh (2017) observed advantages for Intuitive-Thinking profiles. The present study does not contradict these findings but offers a complementary observation: when the task is narrowed to terminology recall, S-N differences may appear not in aggregate performance but in the behavioral form that difficulty takes. If this pattern replicates, it would suggest that earlier findings reflect differences in how S and N translators approach tasks rather than differences in memory capacity.

Task type may matter here. Full translation tasks combine comprehension, discourse control, revision, and writing quality, whereas terminology recall tasks narrow the target to retrieval and production fidelity. This difference could partially explain why personality contrasts appear stronger in some full-text studies than in the present recall task, though alternative explanations cannot be ruled out.

### **Thinking and Feeling: Overlap With Production Quality**

The Thinking-Feeling comparisons did not yield a statistically significant difference in total recall score, though Feeling participants displayed higher mean scores. Trend-level differences emerged for spelling mistakes and handwriting readability, with Feeling participants producing fewer errors and higher readability scores. This pattern suggests that any T/F differences in total score may overlap with written production quality rather than reflecting retrieval differences per se.

It should be noted that these findings require cautious interpretation. If the aforementioned pattern holds in future samples, it would suggest that some students may benefit from targeted support in Arabic term formation and spelling control during terminology learning.

Neither Extraversion-Introversion nor Judging-Perceiving produced meaningful differences in recall scores or related indicators. This does not imply irrelevance to translator performance generally; rather, these dimensions may require task formats that differ from immediate individual recall, such as collaborative learning conditions for E-I or multi-stage planning tasks for J-P, before personality-linked variation becomes visible.

### **Tentative Pedagogical Implications**

The findings suggest several tentative implications for terminology instruction, pending replication.

First, instructors may treat omission and partial answers as diagnostic signals rather than as uniform failures. Students who skip frequently may benefit from structured retrieval practice, low-stakes repeated testing, and strategies that encourage attempt without encouraging random guessing. Students who attempt but produce incomplete responses may benefit from form-focused feedback on Arabic morphological patterns, multiword term conventions, and orthographic control.

The proposal that omission and incomplete responses serve as diagnostic indicators extends work on terminology pedagogy in translator training. Montero Martínez and Faber (2009) argued that terminology competence involves managing terms as knowledge units within conceptual systems. Al-Ismael (2017) similarly emphasized pedagogical design in terminology learning, treating recall as a legitimate outcome variable shaped by instructional conditions. The present study extends this perspective by proposing that response-pattern analysis can differentiate training needs.

Second, the co-occurrence of recall with handwriting and spelling suggests that terminology learning activities should integrate form accuracy training alongside meaning learning. This recommendation aligns with competence-based perspectives in translator training (Kiraly, 2015).

Third, the study supports the use of terminology quizzes as classroom instruments while clarifying their interpretive boundaries. If the aim is to measure retention as a cognitive construct, instructors may consider reducing the influence of handwriting through typed formats or structured response choices. If the aim is to assess performance in a realistic sense, then the combined construct may be appropriate because professional technical translation requires both knowledge and accurate production.

### **Limitations**

Several limitations constrain the interpretation of these findings.

**Sample size and composition.** The study drew on 45 participants from one program at one institution. The Intuition subgroup ( $n = 8$ ) was substantially smaller than the Sensing subgroup ( $n = 37$ ), limiting the stability and generalizability of S-N comparisons. Findings involving Sensing-Intuition are therefore treated as exploratory observations rather than confirmatory results.

**Inter-rater reliability.** Two examiners assessed handwriting readability. They reached consensus scores through discussion. Because independent ratings were not preserved, formal inter-rater reliability coefficients could not be calculated. This limitation affects confidence in findings involving readability.

**Retention interval.** Retention was measured through an immediate quiz after one hour of study. The findings reflect short-term recall rather than durable learning. Whether the observed patterns persist after delays of one week or longer remains unknown.

**MBTI as a measurement instrument.** MBTI types were recorded as four-letter classifications without preference clarity indices or continuous scores. Continuous scores would have permitted correlational analyses and provided finer-grained insight into the strength of personality-linked associations, particularly for dichotomies where the present categorical comparisons yielded non-significant results.

In light of these limitations, Table 4 presents a consolidated overview of the study's key findings and their implications for terminology assessment and translator training.

**Table 4**

Summary of Key Findings and Their Contributions

<b>Finding</b>	<b>What the Data Showed</b>	<b>What This Means for the Field</b>
Terminology quizzes appeared to measure more than memory alone	Higher scores co-occurred with fewer skipped items and more readable handwriting. Readability was in turn inversely associated with spelling errors. The quiz appeared to capture retrieval, omission tendency, and production quality together.	Instructors who interpret quiz scores as direct retention measures may be conflating distinct competence components within a single grade.
Sensing and Intuitive students differed in how they responded when recall failed, not in how much they recalled	Both groups achieved comparable scores. Under retrieval difficulty, Intuitive students tended to attempt partial responses while Sensing students tended to leave items blank.	Suggests that personality-linked variation may operate at the level of response strategy rather than memory capacity, reframing prior Sensing-Intuition findings from who performs better to how learners express difficulty.
Thinking and Feeling differences appeared tied to production quality rather than retrieval	Feeling participants showed a tendency toward fewer spelling errors and more readable handwriting. Where differences appeared, they suggested cleaner written execution rather than stronger retention.	Some personality-linked score differences may reflect how well students produce Arabic terms on paper rather than how well they stored them. This supports integrating form-focused training alongside meaning-oriented instruction.
Extraversion-Introversion and Judging-Perceiving showed no meaningful effects in this task	Neither dichotomy produced notable differences across any measured outcome.	These dimensions may require collaborative or multi-stage tasks to become visible rather than a timed individual recall format.
Blank answers and incomplete answers represented different forms of failure	Skipping and partial responding reflected different behavioral tendencies that separated along personality lines, pointing to different processes under retrieval difficulty.	Response-pattern analysis, distinguishing omission from attempted recall, can serve as a diagnostic tool, allowing instructors to differentiate training needs rather than treating all missing answers as equivalent.

## Conclusion

This study examined whether MBTI preferences relate to short-term recall of English-Arabic technical terminology among 45 undergraduate translation students. The results point toward a reframing of how terminology quiz performance is understood and how personality-linked variation is interpreted in translator training contexts.

The correlational evidence (Table 3) suggests that what classroom terminology quizzes measure is not retrieval alone but a composite of retrieval success, omission tendency, and written production quality. This distinction matters for assessment

design: instructors who wish to isolate retention as a cognitive construct may need to control for handwriting and spelling through typed or recognition-based formats, whereas those assessing production readiness may find the composite construct appropriate as it stands.

The exploratory Sensing-Intuition pattern (Figure 1) raises a question that prior MBTI-oriented translation research has not addressed directly: whether personality-linked differences operate at the level of response strategy rather than memory capacity. If the crossover between omission and partial attempt replicates with larger and more balanced samples, it would shift the focus of personality-informed pedagogy from predicting who performs better to understanding how different learners express difficulty, and what forms of instructional support each pattern calls for.

The study's limitations are substantial, and the findings are best understood as preliminary classroom observations that generate hypotheses rather than confirm them. Replication with larger samples, delayed retention testing, and continuous MBTI preference scores would clarify whether the patterns observed here are stable. If confirmed, they could inform both the design of terminology assessments and the differentiation of instructional strategies in technical translation training.

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## Appendix: Anonymized Participant Dataset (P1-P45)

Participant	Type	Quiz Score	Skipped	Handwriting	Incomplete	Spelling
P1	ISTP	10.0	1	3	0	16
P2	ISFP	10.0	0	10	1	10
P3	ESTP	5.5	5	2	0	15
P4	ISFJ	10.0	0	7	0	24
P5	ESFJ	9.0	3	9	6	5
P6	INTP	6.0	3	1	4	19
P7	ISTJ	3.0	0	9	2	15
P8	ESFJ	14.0	0	7	0	5
P9	ISTJ	5.0	2	0	2	16
P10	ISFP	7.0	0	1	0	21
P11	ISTP	7.5	3	4	0	14
P12	ISFP	5.0	1	8	1	20
P13	ESFP	3.5	14	3	1	17
P14	ISTJ	4.5	4	5	1	26
P15	ISTP	8.5	5	8	0	10
P16	INTP	7.5	0	6	2	18
P17	ESFJ	13.0	0	7	0	8
P18	ISFJ	12.5	0	7	0	13
P19	ISTP	7.0	5	0	2	8
P20	INTJ	5.0	2	0	2	18
P21	ISFP	10.5	0	3	0	22
P22	ESTJ	5.0	0	9	0	11
P23	ISTP	10.5	0	8	0	14
P24	ISTP	8.5	3	5	0	30
P25	ESTJ	6.5	0	1	0	23
P26	INTP	10.0	0	2	1	28
P27	ISTP	12.5	0	10	0	14
P28	ISFJ	9.5	3	9	0	2
P29	ENTJ	9.5	0	8	1	10
P30	ISTP	12.0	2	7	1	19
P31	ESTP	12.5	1	7	1	8
P32	ENFJ	7.0	1	8	8	18
P33	ISTJ	10.0	1	6	0	32
P34	ESTJ	1.0	2	1	0	40
P35	ISTP	7.0	12	3	0	13
P36	INFJ	10.5	0	8	0	14
P37	ESTP	12.5	4	6	0	22
P38	ISTJ	4.5	5	2	0	17
P39	ISTJ	4.5	6	4	0	19
P40	ESFJ	6.5	8	8	0	14
P41	INTP	7.0	0	4	0	26
P42	ISTJ	10.0	1	9	1	33
P43	ISTP	9.5	0	3	0	23
P44	ISFP	8.0	6	4	1	11
P45	ISTP	9.5	0	9	0	11