Translation Performance in Intuitive and Sensing-Type Personalities

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Abstract—This study uses the Myers-Briggs Type Indicator, the American Translator Association assessment framework, and error categories to explore the differences between sensing and intuitive-type translators. Using English-Arabic as a language pair, the study investigates whether sensing-types are poor translators compared to intuitive-types as claimed by previous studies. The findings show that sensing-type translators may struggle with their writing and translation skills. According to the analysis outcomes, intuitive-type translators scored lower in essential error categories for translation, including cohesion and misunderstanding of the source text, as compared to sensing-type translators. Based on the study's findings, recommendations for overcoming the challenges encountered by sensing-type translators are suggested.

Index Terms—sensing-type, intuitive-type, translation quality, Myers-Briggs Type Indicator

I. INTRODUCTION

Like any other professionals, translators and interpreters differ in their expertise, background knowledge, and personality types. Few studies have been conducted to examine the relationship between translation performance, parts of the personality that are associated with perception, and the way people process information. The Myers-Briggs Type Indicator (MBTI) has been used globally to identify individuals' personality types based on their instinctive preferences of four dichotomies linked to personal energy, perception, decision making, and managing lifestyles (Jung 1921/1971).

According to the MBTI, there are two styles of perception, namely, sensing and intuition. Sensing refers to "processing data through the five senses. People with this style tend to focus on the present and prefer to learn by doing rather than thinking it through. They are concrete thinkers who recognize details. They are more energized by the practical use of an object/idea rather than the theory behind it" (Wang et al., 2012, p.11). In contrast, there are people who instinctively use intuition as their perception style. They are recognized to be "keener to the meaning and patterns behind the information. They are more focused on how the present would affect the future. Intuitive-type individuals are readily able to grasp different possibilities and abstract concepts. They easily see the big picture rather than the details" (Wang et al., 2012, p.11).

This study investigates whether translators' perception styles influence their performance. This paper will focus on whether sensing personalities are unsuccessful in English-Arabic translation compared to intuitive ones, and underscore errors and quality points that may make them unique amongst other types.

II. LITERATURE REVIEW

Among the few studies that have earlier been conducted in this field, four are briefly highlighted here. Hubscher-Davidson (2009) conducted a study with 20 participants to explore the effect of MBTI personality traits on French-English translation performance using a piece of literary text. The author conducted the analysis, placed special emphasis on the difference between sensing-type and intuitive-type translators, and reported that the latter outperformed the sensing-type translators. In this regard, Hubscher-Davidson (2009) indicates that "the five students who were most successful in the task, according to the markers' assessments, were all intuitioners, whereas the five weakest students in the study were all sensors" (p. 185). On the one hand, the study's findings show that the sensing-type translators' work contained serious mistakes in semantics, and that their translations according to the markers were inaccurate and vague. On the other hand, markers gave positive comments on the intuitive-type translators' imagery mastery and stylistic sensibility during translation (p. 186).

Karimniia and Mahjubi (2013) conducted numerous experiments and analyzed whether there was a significant association between translation quality and personality traits using the MBTI. Their study involved different text types to measure participants' performance and the quality of their translations.

The researchers reported that almost all personality types translated operative and informative texts in the same manner. Their findings observed a remarkable difference between intuitive and sensing types when it came to literary genre translation as the former obviously outperformed their peers (p. 47). Additionally, they observed that sensing-type individuals lack good writing skills and self-confidence as reflected in their tasks as well as their exit surveys (pp.

48/49). They also highlighted that sensing-thinking (ST) and sensing-feeling (SF) type participants have limitations in their reading skills that result in unwanted complexity which could hamper the successful completion of tasks (p. 49).

Karimniia and Mahjubi (2013) underscore that the absence of originality and imagination in the sensing-type translators' personalities might be behind their failure to translate well (p. 50).

Shaki and Khoshsalighehi (2017) studied the connection between translation quality and different personality types using Persian and English as the language pair. Their findings stated that intuitive-thinking (NT) types outperformed all other types (p. 130). They highlighted that participants with sensing personality types performed poorly in the translation of all text types. They also pointed out that a part of their problem is linked to the absence of essential skills (i.e., reading and comprehension skills) especially while handling the source text (p. 131).

On the contrary, Al-Ismail (2020) conducted an observational study to explore the personality variations and translation quality. The study's findings show that intuitive types outperformed all other types in the translation of all texts. In addition, sensing-type participants obtained mid-average level scores when it came to translation quality. The author states: "findings also highlight that sensing personalities are also amongst best performers" (p. 34). However, this study did not focus on the detailed exploration of the performance of sensing-types in Arabic-English translation.

Thus, this study essentially aims to explore sensing-type translators' performance in terms of assessment elements. We focus on several error categories relating to meaning transfer and mechanical errors. The points in the micro-analysis will include error categories such as ambiguity, cohesion, literalness, word choice, grammar, spelling, and usage. This study intends to provide further conclusive remarks and investigate sensing-type translators and their performance in-depth to corroborate the findings of previous studies.

III. METHODOLOGY

A. Participants and Materials

The research included 44 level five undergraduate translation students (male) who had completed a variety of foundational courses in translation. Each participant demonstrated an interest in the research and provided informed consent. Throughout this study, participants will be referred to as sensing-type and intuitive-type translators. There were two distinct rounds of data collection: 1) personality assessment using MBTI, and 2) translation tasks. Translation tasks included two different types of text. The two texts were referred to as *Text 1* (informative) and *Text 2* (expressive).

B. Procedures

In stage 1, the MBTI assessment was used to determine participants' personality types. All types were verified by a certified MBTI practitioner. The second stage involved translation tasks in which participants were asked to translate various texts from English to Arabic. Participants were allowed to use the internet to access online dictionaries and other useful resources to help in the translation process in a self-paced timed session. The assessment was conducted by a certified professional translator using the American Translator Association (ATA) assessment framework.

C. Results

Translator types were sorted into two main categories: sensing-type and intuitive-type, and included 34 and 10 participants respectively.

The hypothesis of this study states that sensing-type participants may not be as successful as intuitive-type participants with regard to English-Arabic translation performance. Thus, this paper will use the ATA error parameters to micro-analyze sensing-type individuals' performance reports in order to determine whether they fall within the category of unsuccessful translators and writers as argued by Karimniia and Mahjubi (2013), and Shaki and Khoshsalighehi (2017). This study also compares sensing-types' performance with their counterpart, the intuitive-types.

Assessment Elements[1]

This section presents assessment factors for participants' tasks according to their ATA assessment sheets. Since the number of participants was small (44), manual analysis was conducted to ensure fairness and consistency. Subsections include tables for the following ATA error categories:

- Target language mechanics
- Meaning transfer errors at the word/phrase level (addition, omission, terminology, and verb form).
- Various meaning transfer errors (ambiguity, cohesion, faithfulness, literalness, and misunderstanding of the source text)
- Writing ability errors (usage and text type).

Tables 1 and 2 show participant types and meaning transfer error scores of texts 1 and 2.

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[1] ATA assessment factors and explanation of error categories are available at: https://www.atanet.org/certification/how-the-exam-is-graded/error-categories/

TABLE 1
MEANING TRANSFER ERRORS AT WORD/PHRASE LEVEL FOR ALL TYPES (TEXT 1)

MBTI Type	Participant	Addition	Omission	Terminology	Verb Tense
Sensing	Participant 1	0	0	0	0
Sensing	Participant 2	0	0	1	0
Sensing	Participant 3	0	0	9	0
Sensing	Participant 4	0	1	1	1
Sensing	Participant 5	0	6	0	2
Sensing	Participant 6	0	8	0	2
Sensing	Participant 7	0	0	2	1
Sensing	Participant 8	0	0	2	0
Sensing	Participant 9	0	0	3	0
Sensing	Participant 10	0	0	9	0
Sensing	Participant 11	0	0	3	0
Sensing	Participant 12	2	0	2	1
Sensing	Participant 13	0	0	5	0
Sensing	Participant 14	0	1	0	2
Sensing	Participant 15	0	0	1	0
Sensing	Participant 16	0	1	0	0
Sensing	Participant 17	0	0	4	0
Sensing	Participant 18	0	0	6	2
Sensing	Participant 19	0	0	0	0
Sensing	Participant 20	0	1	2	0
Sensing	Participant 21	0	0	3	0
Sensing	Participant 22	0	0	5	1
Sensing	Participant 23	0	1	1	0
Sensing	Participant 24	0	0	6	0
Sensing	Participant 25	0	4	1	2
Sensing	Participant 26	0	0	0	0
Sensing	Participant 27	0	0	1	0
Sensing	Participant 28	6	5	4	2
Sensing	Participant 29	0	0	5	1
Sensing	Participant 30	0	4	0	0
Sensing	Participant 31	0	45	0	0
Sensing	Participant 32	0	0	2	0
Sensing	Participant 33	0	0	5	0
Sensing	Participant 34	0	0	0	0
Intuitive	Participant 35	0	0	0	3
Intuitive	Participant 36	0	0	0	2
Intuitive	Participant 37	0	0	4	0
Intuitive	Participant 38	0	0	0	0
Intuitive	Participant 39	0	0	0	0
Intuitive	Participant 40	0	0	4	0
Intuitive	Participant 41	1	0	0	0
Intuitive	Participant 42	0	0	4	0
Intuitive	Participant 43	0	0	0	0
Intuitive	Participant 44	0	0	5	0

TABLE 2
MEANING TRANSFER ERRORS AT WORD/PHRASE LEVEL FOR ALL TYPES (TEXT 2)

MBTI Type	Participant	Addition	Omission	Terminology	Verb Tense
Sensing	Participant 5	0	0	5	0
Sensing	Participant 6	0	15	15	0
Sensing	Participant 7	0	0	5	0
Sensing	Participant 8	0	0	1	0
Sensing	Participant 9	0	0	10	0
Sensing	Participant 10	0	1	0	0
Sensing	Participant 11	8	0	6	0
Sensing	Participant 13	0	0	2	0
Sensing	Participant 14	0	0	5	0
Sensing	Participant 15	0	0	2	0
Sensing	Participant 16	0	0	4	0
Sensing	Participant 17	0	1	0	0
Sensing	Participant 18	0	0	0	0
Sensing	Participant 19	0	0	2	0
Sensing	Participant 20	0	0	1	0
Sensing	Participant 21	0	0	8	0
Sensing	Participant 22	o	0	8	0
Sensing	Participant 23	0	0	0	0
Sensing	Participant 24	0	0	5	0
Sensing	Participant 25	0	0	3	0
Sensing	Participant 26	0	0	4	0
Sensing	Participant 27	0	0	1	0
Sensing	Participant 28	0	1	2	0
Sensing	Participant 29	0	0	5	0
Sensing	Participant 30	0	0	1	0
Sensing	Participant 31	0	0	7	0
Sensing	Participant 32	0	0	3	0
Sensing	Participant 33	0	0	6	0
Sensing	Participant 34	0	0	5	0
Sensing	Participant 35	0	0	4	0
Sensing	Participant 36	0	0	6	0
Sensing	Participant 37	0	0	6	0
Sensing	Participant 38	0	0	2	0
Sensing	Participant 39	0	0	3	0
Intuitive	Participant 40	0	0	0	0
Intuitive	Participant 41	0	0	2	0
Intuitive	Participant 42	0	0	6	0
Intuitive	Participant 43	0	0	5	0
Intuitive	Participant 44	0	0	4	0
Intuitive	Participant 1	0	0	1	0
Intuitive	Participant 2	0	0	4	0
Intuitive	Participant 3	0	0	5	0
Intuitive	Participant 4	0	1	2	0
Intuitive	Participant 12	0	0	3	0

As for other meaning transfer error categories, Table 3 shows the results for texts 1 and 2:

TABLE 3
MEANING TRANSFER ERRORS AT VARIOUS LEVELS (TEXT 1)

MBTI Type	Participant	Ambiguity	cohesion	Faithfulness	Literalness	Misunderstanding
Sensing	Participant 5	0	10	0	0	0
Sensing	Participant 6	1	0	0	0	0
Sensing	Participant 7	3	0	0	0	0
Sensing	Participant 8	0	0	0	0	6
Sensing	Participant 9	0	0	0	0	5
Sensing	Participant 10	0	0	0	0	15
Sensing	Participant 11	4	0	0	0	4
Sensing	Participant 13	0	0	0	0	7
Sensing	Participant 14	0	0	0	0	3
Sensing	Participant 15	8	0	0	0	5
Sensing	Participant 16	0	0	0	0	11
Sensing	Participant 17	0	2	0	3	1
Sensing	Participant 18	4	0	0	10	0
Sensing	Participant 19	2	0	0	0	4
Sensing	Participant 20	0	0	0	0	0
Sensing	Participant 21	0	0	0	0	2
Sensing	Participant 22	3	0	0	0	0
Sensing	Participant 23	0	0	0	0	2
Sensing	Participant 24	0	4	0	0	3
Sensing	Participant 25	0	0	0	0	0
Sensing	Participant 26	0	0	0	1	0
Sensing	Participant 27	4	0	0	0	8
Sensing	Participant 28	0	0	0	0	0
Sensing	Participant 29	0	0	0	0	0
Sensing	Participant 30	3	0	0	0	5
Sensing	Participant 31	12	3	0	0	4
Sensing	Participant 32	4	0	0	0	5
Sensing	Participant 33	0	0	0	0	0
Sensing	Participant 34	0	0	0	0	5
Sensing	Participant 35	0	0	0	0	5
Sensing	Participant 36	0	0	0	0	0
Sensing	Participant 37	14	0	0	0	0
Sensing	Participant 38	0	0	0	0	0
Sensing	Participant 39	2	0	0	0	10
Intuitive	Participant 40	4	0	0	0	5
Intuitive	Participant 41	0	0	0	0	0
Intuitive	Participant 42	0	0	0	0	0
Intuitive	Participant 43	4	3	0	0	0
Intuitive	Participant 44	3	0	0	0	0
Intuitive	Participant 1	0	0	0	0	0
Intuitive	Participant 2	6	0	0	0	3
Intuitive	Participant 3	0	0	0	0	0
Intuitive	Participant 4	0	0	0	2	0
Intuitive	Participant 12	0	0	0	0	0

TABLE 4
MEANING TRANSFER ERRORS AT VARIOUS LEVELS (TEXT 2)

MBTI Type	Participant	Ambiguity	Cohesion	Faithfulness	Literalness	Misunderstanding
Sensing	Participant 5	2	0	0	2	0
Sensing	Participant 6	0	5	0	0	15
Sensing	Participant 7	0	5	0	0	0
Sensing	Participant 8	0	0	0	0	8
Sensing	Participant 9	0	0	0	0	0
Sensing	Participant 10	1	0	0	2	4
Sensing	Participant 11	0	0	0	0	0
Sensing	Participant 13	0	0	0	0	0
Sensing	Participant 14	0	5	0	0	0
Sensing	Participant 15	0	0	0	0	0
Sensing	Participant 16	2	5	0	2	1
Sensing	Participant 17	0	0	0	0	6
Sensing	Participant 18	2	0	0	0	10
Sensing	Participant 19	0	0	0	1	0
Sensing	Participant 20	0	0	0	0	9
Sensing	Participant 21	9	3	0	0	15
Sensing	Participant 22	o	o	o	o	12
Sensing	Participant 23	0	4	0	0	3
Sensing	Participant 24	0	0	0	0	10
Sensing	Participant 25	2	0	0	0	0
Sensing	Participant 26	0	2	0	2	4
Sensing	Participant 27	0	0	0	2	0
Sensing	Participant 28	0	0	0	0	0
Sensing	Participant 29	0	0	0	0	4
Sensing	Participant 30	0	0	0	0	4
Sensing	Participant 31	0	2	0	0	0
Sensing	Participant 32	0	0	0	0	11
Sensing	Participant 33	0	0	0	0	5
Sensing	Participant 34	0	0	0	0	0
Sensing	Participant 35	0	0	0	0	0
Sensing	Participant 36	0	0	0	0	13
Sensing	Participant 37	3	0	0	0	5
Sensing	Participant 38	0	0	0	0	4
Sensing	Participant 39	0	0	0	1	7
Intuitive	Participant 40	0	0	0	0	0
Intuitive	Participant 41	0	0	0	0	0
Intuitive	Participant 42	5	0	0	2	0
Intuitive	Participant 43	4	0	0	0	0
Intuitive	Participant 44	0	3	0	3	0
Intuitive	Participant 1	0	0	0	0	0
Intuitive	Participant 2	3	0	0	0	0
Intuitive	Participant 3	0	0	0	0	0
Intuitive	Participant 4	0	0	0	0	0
Intuitive	Participant 12	0	0	0	0	0

Tables 5 and 6 show the results of errors concerning the target language mechanics for texts 1 and 2, respectively. Language mechanics include errors associated with syntax, grammar, word form, punctuation, and spelling.

TABLE 5
TARGET LANGUAGE MECHANICS (TEXT 1)

MBTI Type	Participant	Grammar	Syntax	Word Form	Punctuation	Spelling
Sensing	Participant 5	0	14	0	0	11
Sensing	Participant 6	0	0	0	0	0
Sensing	Participant 7	0	2	0	0	0
Sensing	Participant 8	0	0	0	0	3
Sensing	Participant 9	2	0	0	0	0
Sensing	Participant 10	0	0	0	0	0
Sensing	Participant 11	0	0	0	0	0
Sensing	Participant 13	0	1	0	0	6
Sensing	Participant 14	0	0	0	0	0
Sensing	Participant 15	5	4	0	0	15
Sensing	Participant 16	0	0	0	0	15
Sensing	Participant 17	0	1	1	0	4
Sensing	Participant 18	1	0	0	0	4
Sensing	Participant 19	0	0	0	0	0
Sensing	Participant 20	0	0	0	0	5
Sensing	Participant 21	1	0	0	0	1
Sensing	Participant 22	0	0	0	0	2
Sensing	Participant 23	0	0	0	0	3
Sensing	Participant 24	0	0	0	0	0
Sensing	Participant 25	0	0	0	0	2
Sensing	Participant 26	0	0	0	0	4
Sensing	Participant 27	0	0	0	0	15
Sensing	Participant 28	0	0	1	2	0
Sensing	Participant 29	4	3	0	0	0
Sensing	Participant 30	0	0	0	0	0
Sensing	Participant 31	0	0	0	0	0
Sensing	Participant 32	0	0	0	0	0
Sensing	Participant 33	0	3	0	0	1
Sensing	Participant 34	0	0	0	0	1
Sensing	Participant 35	0	0	0	0	2
Sensing	Participant 36	0	0	0	0	0
Sensing	Participant 37	0	0	0	0	2
Sensing	Participant 38	2	0	0	0	0
Sensing	Participant 39	0	0	0	0	5
Intuitive	Participant 40	0	0	0	0	14
Intuitive	Participant 41	2	0	0	0	2
Intuitive	Participant 42	0	0	0	0	5
Intuitive	Participant 43	2	0	0	0	0
Intuitive	Participant 44	0	2	0	0	2
Intuitive	Participant 1	0	2	0	0	0
Intuitive	Participant 2	0	2	0	1	0
Intuitive	Participant 3	0	0	0	0	6
Intuitive	Participant 4	0	2	0	5	0
Intuitive	Participant 12	0	0	0	0	15

TABLE 6
TARGET LANGUAGE MECHANICS (TEXT 2)

MBTI Type	Participant	Grammar	Syntax	Word Form	Punctuation	Spelling
Sensing	Participant 5	1	0	0	0	0
Sensing	Participant 6	15	0	0	0	3
Sensing	Participant 7	0	14	0	0	11
Sensing	Participant 8	3	0	0	0	2
Sensing	Participant 9	7	0	0	0	8
Sensing	Participant 10	0	0	0	0	5
Sensing	Participant 11	4	0	0	0	11
Sensing	Participant 13	4	2	0	0	13
Sensing	Participant 14	0	14	0	0	11
Sensing	Participant 15	3	0	0	0	0
Sensing	Participant 16	0	2	0	5	0
Sensing	Participant 17	0	0	0	0	0
Sensing	Participant 18	0	0	0	0	5
Sensing	Participant 19	3	0	0	0	0
Sensing	Participant 20	1	0	1	0	1
Sensing	Participant 21	0	0	0	0	5
Sensing	Participant 22	3	0	0	0	0
Sensing	Participant 23	0	0	0	0	0
Sensing	Participant 24	8	0	0	0	0
Sensing	Participant 25	0	1	0	1	1
Sensing	Participant 26	4	1	0	0	0
Sensing	Participant 27	4	0	0	0	1
Sensing	Participant 28	1	0	0	1	1
Sensing	Participant 29	7	0	0	0	0
Sensing	Participant 30	3	0	0	0	10
Sensing	Participant 31	1	0	0	0	1
Sensing	Participant 32	0	0	0	0	2
Sensing	Participant 33	2	4	0	0	13
Sensing	Participant 34	2	0	0	0	10
Sensing	Participant 35	2	2	0	0	6
Sensing	Participant 36	2	2	0	0	2
Sensing	Participant 37	0	0	0	0	1
Sensing	Participant 38	4	2	0	0	5
Sensing	Participant 39	4	0	0	0	0
Intuitive	Participant 40	4	0	7	0	8
Intuitive	Participant 41	2	0	0	0	2
Intuitive	Participant 42	0	0	0	0	6
Intuitive	Participant 43	3	0	0	0	0
Intuitive	Participant 44	2	0	0	0	3
Intuitive	Participant 1	1	0	0	0	0
Intuitive	Participant 2	6	4	0	0	0
Intuitive	Participant 3	0	0	0	0	10
Intuitive	Participant 4	1	0	0	1	1
Intuitive	Participant 12	0	0	0	0	6

Additionally, results of the writing ability error for both texts are given below in Tables 7 and 8. This includes errors associated with usage and text type. According to the ATA assessment framework, it is considered a usage error when terminology or phrase conventions of the receptor language are not followed. A text type error arises when parts of the translation are either unsuitable for the intended audience or do not meet the standards given in the ATA translation instructions.

TABLE 7
WRITING ABILITY ERROR SCORE (TEXT 1)

MBTI Type	Participant	Text type	Usage
Sensing	Participant 5	0	0
Sensing	Participant 6	0	1
Sensing	Participant 7	0	2
Sensing	Participant 8	0	0
Sensing	Participant 9	0	2
Sensing	Participant 10	0	0
Sensing	Participant 11	0	1
Sensing	Participant 13	0	1
Sensing	Participant 14	0	2
Sensing	Participant 15	0	0
Sensing	Participant 16	0	0
Sensing	Participant 17	0	1
Sensing	Participant 18	0	0
Sensing	Participant 19	0	2
Sensing	Participant 20	0	1
Sensing	Participant 21	0	1
Sensing	Participant 22	0	0
Sensing	Participant 23	0	0
Sensing	Participant 24	0	2
Sensing	Participant 25	0	0
Sensing	Participant 26	0	3
Sensing	Participant 27	0	0
Sensing	Participant 28	0	1
Sensing	Participant 29	0	0
Sensing	Participant 30	0	1
Sensing	Participant 31	0	0
Sensing	Participant 32	0	1
Sensing	Participant 33	0	0
Sensing	Participant 34	0	0
Sensing	Participant 35	0	3
Sensing	Participant 36	0	0
Sensing	Participant 37	0	0
Sensing	Participant 38	0	0
Sensing	Participant 39	0	7
Intuitive	Participant 40	0	0
Intuitive	Participant 41	0	0
Intuitive	Participant 42	0	0
Intuitive	Participant 43	0	0
Intuitive	Participant 44	0	0
Intuitive	Participant 1	0	4
Intuitive	Participant 2	0	0
Intuitive	Participant 3	2	0
Intuitive	Participant 4	0	0
Intuitive	Participant 12	0	0

TABLE 8
WRITING ABILITY ERROR SCORE (TEXT 2)

MBTI Type	Participant	Text Type	Usage
Sensing	Participant 5	0	0
Sensing	Participant 6	0	3
Sensing	Participant 7	0	0
Sensing	Participant 8	0	0
Sensing	Participant 9	0	3
Sensing	Participant 10	0	0
Sensing	Participant 11	0	3
Sensing	Participant 13	0	0
Sensing	Participant 14	0	0
Sensing	Participant 15	0	0
Sensing	Participant 16	0	0
Sensing	Participant 17	0	2
Sensing	Participant 18	0	0
Sensing	Participant 19	0	4
Sensing	Participant 20	0	7
Sensing	Participant 21	0	7
Sensing	Participant 22	0	2
Sensing	Participant 23	0	1
Sensing	Participant 24	0	0
Sensing	Participant 25	0	0
Sensing	Participant 26	0	2
Sensing	Participant 27	0	0
Sensing	Participant 28	0	1
Sensing	Participant 29	0	0
Sensing	Participant 30	0	0
Sensing	Participant 31	0	0
Sensing	Participant 32	0	2
Sensing	Participant 33	0	0
Sensing	Participant 34	0	1
Sensing	Participant 35	0	3
Sensing	Participant 36	0	0
Sensing	Participant 37	0	0
Sensing	Participant 38	0	0
Sensing	Participant 39	0	0
Intuitive	Participant 40	0	0
Intuitive	Participant 41	0	0
Intuitive	Participant 42	0	0
Intuitive	Participant 43	0	0
Intuitive	Participant 44	0	0
Intuitive	Participant 1	0	1
Intuitive	Participant 2	0	0
Intuitive	Participant 3	0	0
Intuitive	Participant 4	0	0
Intuitive	Participant 12	0	3

IV. DISCUSSION

Findings showed that meaning transfer errors at word/phrase levels for all types have an interesting pattern in favor of intuitive types. The average of each meaning transfer error element was counted. Findings showed that for text 1, sensing-types incurred a higher rate of errors than intuitive-type participants. Moreover, the average rate of addition errors (adding extraneous components to the meaning) for sensing-types is 0.23 and for intuitive-types is 0.1.

As for terminology errors, sensing-type participants scored 2.44 while intuitive-types scored 1.7. This category of errors reflects the translator's terminological competence regarding the choice of the right terms for the text (Martinez & Faber, 2009). In this context, intuitive-types performed better than the sensing-types. However, the two types obtained the same score in the verb form error category (0.5). Results of the omission error category show that sensing-types scored an average value of 2.08 whereas their counterparts scored 0.

Meanwhile, data from text 2 show that intuitive-type participants scored higher in the average addition errors than the sensing-types (intuitive: 0.8, sensing: 0). However, sensing-type participants scored higher in other error categories in this area, namely, omission (0.52) and terminology (3.94). Figures 1 and 2 visually display the aforementioned results.

	Intuitive types	Sensing types
■ Average of Verb Form Error	0.5	0.5
■ Average of Addition Error	0.1	0.235294118
■ Average of Omission Error	0	2.264705882
■ Average of Terminology Error	1.7	2.441176471
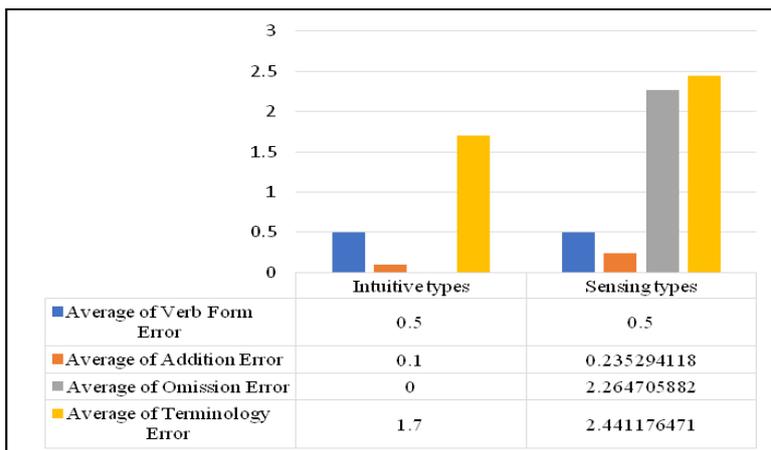
Figure 1. Meaning Transfer Errors at the Word/phrase Level for Intuitive and Sensing Types (text 1)

	Intuitive types	Sensing types
■ Average of Omission Error	0.1	0.529411765
■ Average of Terminology Error	3.5	3.941176471
■ Average of Verb Form Error	0	0
■ Average of Addition Error	0.8	0
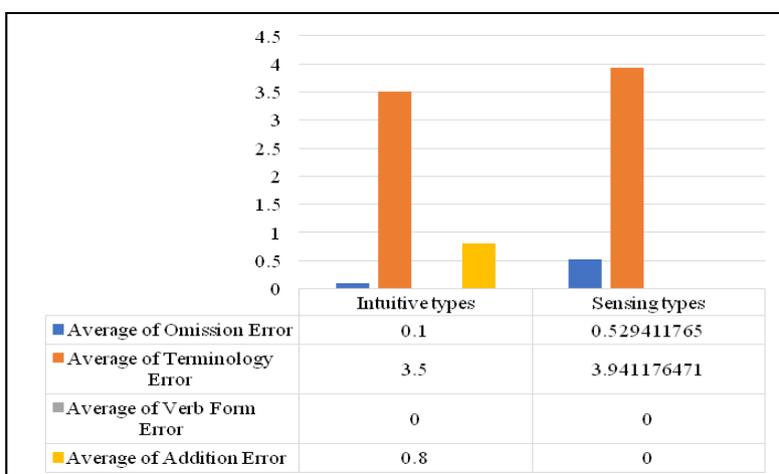
Figure 2. Meaning Transfer Errors at the Word/phrase Level for Intuitive and Sensing Types (text 2)

As for the other levels of errors in the category of meaning transfer, results indicate that the average error rate values for sensing-type participants surpass those of the intuitive participants, which denotes that sensing participants may have challenges when it comes to writing and translation skills. This supports the findings of Hubscher-Davidson (2009), Karimniia and Mahjubi (2013) and Shaki and Khoshsalighehi (2017). This study's results show that sensing-type individuals obtained the highest average rate of errors associated with misunderstanding the source text while translating text 1, whereas intuitive participants scored less than half of what sensing-type individuals scored in the same category (Figure 3). Moreover, findings show that sensing-type participants obtained high scores in all other error categories except faithfulness; namely, ambiguity, literalness, and cohesion.

Results for text 2 show that sensing-type participants still scored higher in the error categories associated with cohesion and misunderstanding of the source text (0.93 and 4.41, respectively), in comparison with intuitive-type participants who obtained 0.3 and 0 in those categories, respectively. Nonetheless, results show that intuitive-type participants had higher average rates for errors related to literalness and ambiguity as displayed in Figure 4 below.

	Intuitive types	Sensing types
■ Average of Cohesion Error	0.3	0.558823529
■ Average of Ambiguity Error	1.7	1.882352941
■ Average of Literalness Error	0.2	0.411764706
■ Average of Misunderstanding Error	0.8	3.235294118
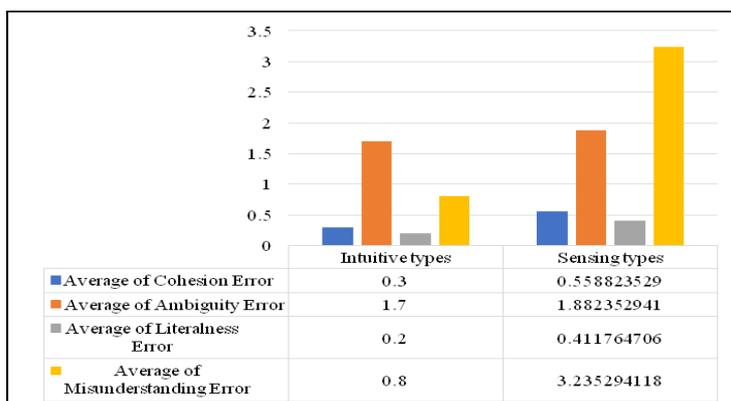
Figure 3. Other Meaning Transfer Error Categories (text 1)

	Intuitive types	Sensing types
■ Average of Misunderstanding of ST	0	4.411764706
■ Average of Cohesion	0.3	0.939393939
■ Average of Literalness	0.5	0.363636364
■ Average of Ambiguity	1.2	0.636363636
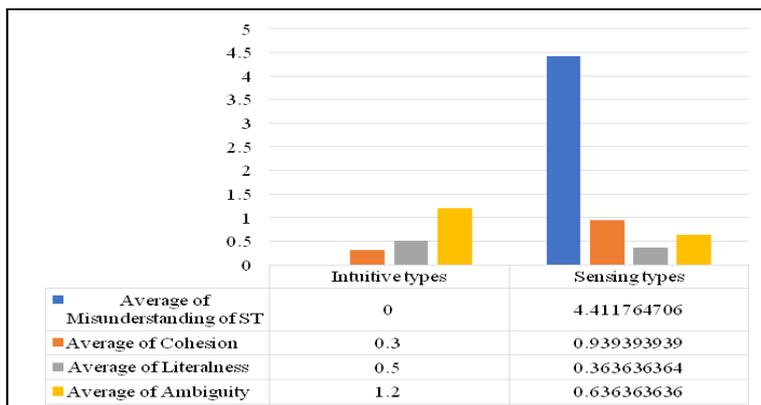
Figure 4. Other Meaning Transfer Error Categories (text 2)

Regarding the writing ability assessment elements, results for text 1 show that intuitive-type participants scored higher in the text type error category. Their average error score value was 0.2, and that of the sensing participants was 0. According to the ATA, this error category, refers to when a translator does not keep the target readership in mind while translating the target text. These results, to some extent, contradict the findings of Hubscher-Davidson (2009), Karimniia and Mahjubi (2013), Shaki and Khoshsalighehi (2017), and Al-Ismail (2020) that underscore how intuitive-type translators are good at translation as compared to other types of translators.

However, data shows that sensing-type participants tend to score high (0.94) in the average number of errors category when it comes to usage errors, as shown in Figure 5. This category essentially indicates:

A usage error occurs when conventions of wording or phrasing in the target language are not followed ("We don't say it that way"). Correct and idiomatic usage of the target language is expected. This category includes definite/indefinite articles, idiomatic use of prepositions (e.g., "married to," not "with"), and collocations ("committed a crime," rather than "performed a crime") (https://www.atanet.org/ Accessed 25 Dec. 2021)

Data for text 2 show that sensing-type participants scored higher than their counterparts in the error category of usage (writing ability, 1 versus 0.4). However, both types scored 0 in the text type error category (Figure 6).

	Intuitive types	Sensing types
■ Average of Usage Error	0.4	0.941176471
■ Average of Text Type Error	0.2	0
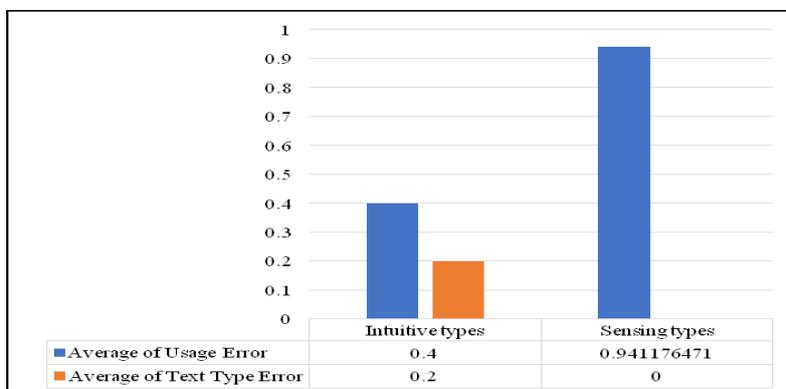
Figure 5. Writing Ability Error Categories (text 1)

	Intuitive types	Sensing types
■ Average of Text Type Error	0	0
■ Average of Usage Error	0.4	1
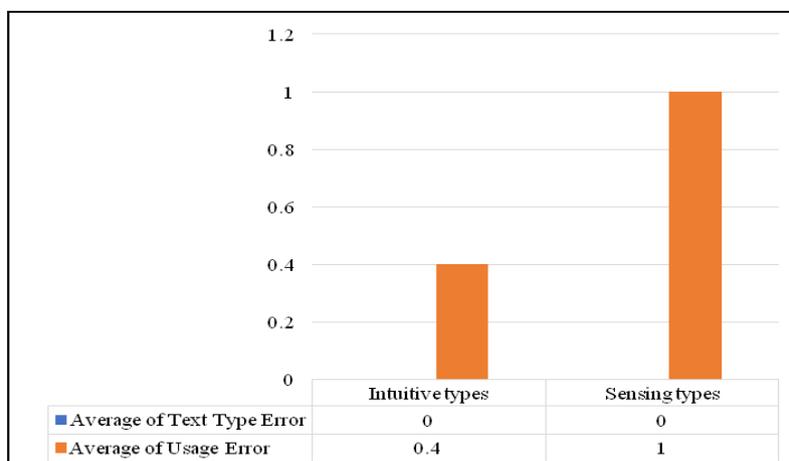
Figure 6. Writing Ability Error Categories (text 2)

Finally, target language mechanics (Figure 7) includes errors in grammar, syntax, word form, spelling, and punctuation. This study's results show that intuitive-type participants obtained the highest average scores for spelling errors in the target language (Arabic, 4.4) while sensing-type participants obtained a score of 2.9. As for other categories, both types scored below 1. Regarding grammar, intuitive-type participants scored 0.40, and sensing participants scored 0.44. In terms of syntax, both types obtained similar scores (intuitive: 0.80 and sensing: 0.82).

	Intuitive types	Sensing types
■ Average of Spelling Error	4.4	2.970588235
■ Average of Punctuation Error	0.6	0.058823529
■ Average of Word Form Error	0	0.058823529
■ Average of Syntax Error	0.8	0.823529412
■ Average of Grammar Error	0.4	0.441176471
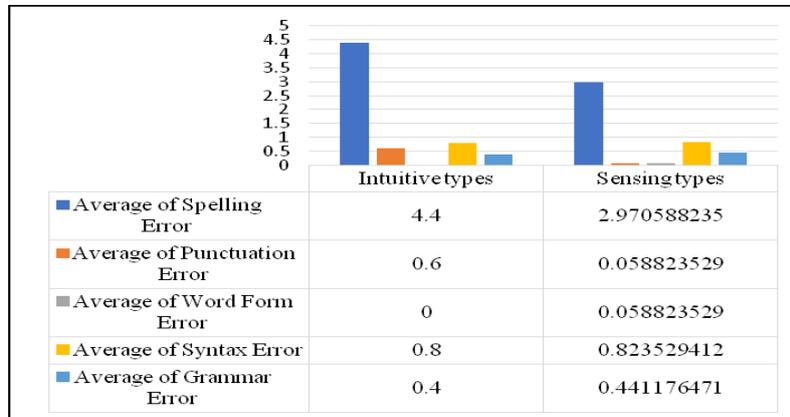
Figure 7. Target Language Mechanics (text 1)

Results show that intuitive types surpassed the sensing-types in punctuation errors. However, sensing-type participants scored 0.05 in errors concerning the word form while intuitive-type participants scored 0. These results illustrate that intuitive-type participants performed more poorly than sensing-type participants in target language mechanics (details), which may impact the final product of translation. However, the tendency of intuitive types to make spelling and punctuation mistakes may be linked to their MBTI personality types. According to Myers and Briggs, intuitive-types intrinsically prefer handling interrelationships and patterns by looking at the big picture while sensing-types are more concerned with specifics and rely on their senses (Myers et al., 1998, p. 6).

Moreover, intuitive-type participants still scored high in the spelling error category for text 2 and sensing-type participants scored the highest in other categories, as shown in Figure 8.

	Intuitive types	Sensing types
■ Average of Syntax Error	0.4	1.294117647
■ Average of Punctuation Error	0.1	0.205882353
■ Average of Word Form Error	0.7	0.029411765
■ Average of Spelling Error	4.1	3.617647059
■ Average of Grammar Error	2.3	2.470588235
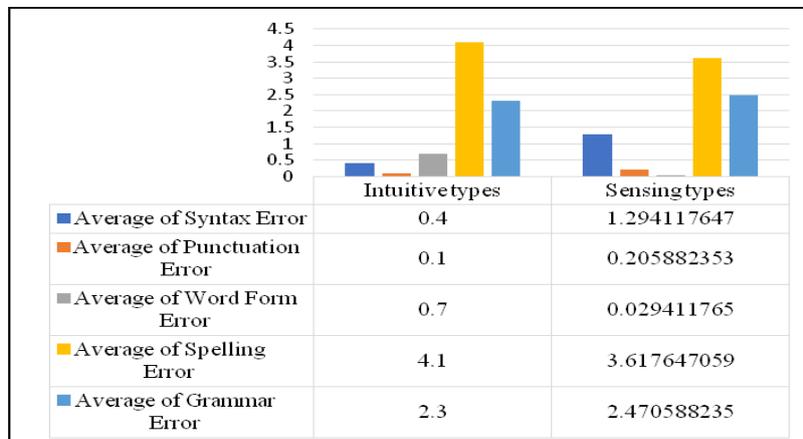
Figure 8. Target Language Mechanics (text 2)

V. CONCLUSION AND FUTURE RESEARCH

Using the MBTI and the ATA assessment framework for translation quality, this study attempted to investigate whether sensing-type participants perform poorly in writing and translation tasks. Using expressive and informative text, we highlight substantial differences of writing and translation skills between intuitive and sensing-type participants.

Despite the small sample size, our findings show that sensing-type participants lack the essential skills to handle the translation of texts coherently and cohesively as compared to intuitive-type participants. Moreover, with regard to translation and writing, our findings show that five major factors may be contributing to the challenges faced by sensing-type individuals. These error categories are omission, terminology, usage, misunderstanding of the source text, and cohesion. Table 9 shows a comparison of the results obtained between sensing and intuitive-type participants for both texts.

TABLE 9
SUMMARY OF RESULTS FOR BOTH TEXTS

	Type	Omission	Terminology	Misunderstanding	Usage	Cohesion
Text 1	Sensing	2.26	2.4	3.23	0.95	0.55
	Intuitive	0	1.7	0.8	0.4	0.3
Text 2	Sensing	0.52	3.9	4.41	1	0.93
	Intuitive	0.1	3.5	0	0.4	0.3

Therefore, the findings of this study show that sensing-type translators may not be as efficient as intuitive-type translators. It is recommended that sensing-type translators take the time to carefully read the text before translation. Further, at the beginning of their course, it is suggested that instructors identify learners' personality types and conduct surveys to determine the translators' strengths and weaknesses. This way, educators and instructors may be able to adjust the course components in order to better achieve the desired objectives.

This study's findings corroborate the results of previous studies that highlight the limitations of sensing-type translators. More importantly, further studies with a larger sample are needed to confirm such findings. Experiments using different text types such as operative and literary texts may be conducted by future researchers to further the findings of this study. Investigating the performance of sensing versus intuitive-type interpreters is another possible area of future research.

APPENDIX. SOURCE TEXTS

Text 1
"The City of New York is the most populous city in the United States. With an estimated 2017 population of 8,622,698 distributed over a land area of about 302.6 square miles (784 km2), it is also the most densely populated major city in the United States. Located at the southern tip of the state of New York, the city is the center of the New York metropolitan area, the largest metropolitan area in the world by urban landmass and one of the world's most populous megacities, with an estimated 20,320,876 people in its 2017 Metropolitan Statistical Area and 23,876,155 residents in its Combined Statistical Area. A global power city, New York City has been described as the cultural, financial, and media capital of the world, and exerts a significant impact upon commerce, entertainment, technology, politics, tourism and others. The city's fast pace has inspired the term New York minute" (Source: https://en.wikipedia.org/wiki/New_York_City, Retrieved 25 November 2021).

Text 2
"A son took his old father to a restaurant for an evening dinner. Father being very old and weak, while eating, dropped food on his shirt and trousers. Other diners watched him in disgust while his son was calm.

After he finished eating, his son who was not at all embarrassed, quietly took him to the washroom, wiped the food particles, removed the stains, combed his hair and fitted his spectacles firmly. When they came out, the entire restaurant was watching them in dead silence, not able to grasp how someone could embarrass themselves publicly like that. The son settled the bill and started walking out with his father.

At that time, an old man amongst the diners called out to the son and asked him, "Don't you think you have left something behind?".

The son replied, "No sir, I haven't".

The old man retorted, "Yes, you have! You left a lesson for every son and hope for every father." (Source: https://www.moralstories.org/evening-dinner-father/, Retrieved 25 November 2021).

REFERENCES

[1] Al-Ismail, Y. (2020). Effect of personality types variation on translation quality. *Journal of Arabic and Human Sciences Qassim University JAHS, 14*(2), 43–75.
[2] Hubscher-Davidson, S. (2009). Personal diversity and diverse personalities in translation: A study of individual differences. *Perspectives: Studies in Translatology. 17(3)*, 175-192.
[3] Jung, C. G. (1921). *Psychological Types: The Collected Works of C. G. Jung,* Vol. 6, Bollingen Series XX. Princeton, New Jersey: Princeton University Press.
[4] Jung, C. G. (1971). *Psychological Types: The Collected* Works, Vol. 6. London: Routledge and Kegan Paul.
[5] Karimniia, A., & Mahjubi, M. (2013). Individual differences and quality of translation: A personality-based perspective. *Psychol. Lang. Commun., 17*(1), 37–64. https://doi.org/10.2478/plc-2013-0003.
[6] Mart ńez, S. M., & Faber, P. (2009). Terminological competence in translation. *Terminology, 15*, 88–104.
[7] *Moral Stories.* (n.d.). Retrieved 25 November 2021. https://www.moralstories.org/evening-dinner-father/
[8] Myers, I. B., McCaulley, M. H., Quenk N. L., & Hammer A.L. (1998). *MBTI Manual: A Guide to the Development and Use of the Myers–Briggs Type Indicator* (3rd ed.). Palo Alto, CA: Consulting Psychologists' Press.
[9] Shaki, R., & Khoshsalighehi, M. (2017). Personality type and translation performance of Persian translator trainees. *Indones. J. Appl. Linguist., 7*(2), 360–370.
[10] The American Translators Association (ATA). (n.d.). *Explanation of Error Categories.* Retrieved 25 December 2021. https://www.atanet.org/certification/how-the-exam-is-graded/error-categories

[11] *The American Translators Association. Framework for Standardized Error Marking*. (n.d.). Retrieved 25 July 2021. https://www.atanet.org/certification/Framework_2017.pdf
[12] *The Myers-Briggs Company*. (n.d.). Retrieved 25 November 2021. https://www.themyersbriggs.com/en-US.
[13] Wang, C., Parawan, J., & Carney, S. (2012). *Myers-Briggs Type Indicator Manual* (pp. 1-36). San Luis Obispo, CA: W.C. Personality Inc.
[14] *Wikipedia, the Free Encyclopedia*. (n.d.) Retrieved 25 November 2021. https://en.wikipedia.org/wiki/New_York_City

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