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From Machine Translation use to Post-Editing Literacy: Revision Practices and Educational Needs Among Korean University Students*

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This study investigates post-editing literacy among Korean university students by analyzing survey data on machine translation (MT) literacy and related revision practices. While previous research has primarily focused on MT use and user perceptions, little attention has been paid to how students revise machine-generated output after receiving it. The study examines post-editing experience, revision methods, revision targets, factors associated with post-editing engagement, and perceived educational needs related to MT literacy. The dataset consisted of 464 responses collected from undergraduate students at a university located in the Seoul metropolitan area of South Korea. The results showed that 60.1% of respondents engaged in post-editing. Significant disciplinary differences were observed in post-editing experience and selected revision practices, with Humanities students showing higher participation and greater engagement in discourse-level revision. Translation accuracy checking and academic use of MT were significantly associated with post-editing engagement, whereas generative AI-based MT tool use was not. Students with post-editing experience expressed stronger interest in cultural appropriateness and interpretation of machine-translated texts. The findings suggest that post-editing literacy may provide a useful lens for discussing MT literacy and critical engagement with AI-generated language in higher education. Overall, the study therefore highlights revision-oriented engagement as an important educational concern today.

[machine translation literacy/ post-editing literacy/ revision practices/ AI literacy/ university students]

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I. INTRODUCTION

Machine translation (MT) has become an increasingly important component of university students' academic and personal lives. The rapid advancement of neural machine translation (NMT) systems and generative artificial intelligence (AI) has transformed MT from a specialized professional technology into a widely accessible resource for everyday communication, language learning, and academic work. Contemporary students frequently rely on MT applications such as Papago, Google Translate, DeepL, and ChatGPT to read foreign-language texts, complete assignments, and support writing tasks. As machine translation technologies become more accurate and readily available, their use has become commonplace in higher education settings.

The widespread adoption of MT has generated substantial scholarly interest in students' perceptions, attitudes, and usage patterns. Previous research has examined MT adoption, frequency of use, perceptions of translation quality, and the pedagogical implications of MT in language learning environments (Bowker & Buitrago Ciro, 2019; Groves & Mundt, 2015; Li, 2023; Niño, 2009). These studies generally suggest that students view MT as a useful academic resource and increasingly integrate it into their learning practices. Recent research in Korean higher education has reported that university students use MT extensively for academic, personal, and language-learning purposes, highlighting the growing educational significance of MT literacy. Despite these developments, most existing research has focused on whether students use MT and how frequently they use it, rather than what they do after receiving machine-generated output.

This limitation has become increasingly important in the era of generative AI. As MT systems continue to improve, effective use of machine-generated language requires more than simply selecting an appropriate translation tool. Users must evaluate translation quality, identify inaccuracies, recognize contextual and cultural issues, and revise outputs according to communicative needs. Such activities involve critical evaluation and revision rather than passive acceptance of machine-generated content. Consequently, scholars have increasingly emphasized the importance of machine translation literacy, which refers to the ability to use MT critically, effectively, and responsibly (Bowker & Buitrago Ciro, 2019).

A particularly important yet underexplored component of MT literacy is post-editing. Traditionally, post-editing has been discussed primarily within professional translation contexts, where human translators revise machine-generated output to improve quality and usability (O'Brien, 2011; O'Brien & Ehrensberger-Dow, 2020). More recently, however, post-editing has become relevant to a much broader population of users. University students frequently interact with machine-generated texts, yet relatively little is known about whether they revise such texts, how they revise them, or what factors influence their revision behaviors. Existing studies have rarely examined post-editing as a literacy practice among

general MT users, particularly in educational settings.

Furthermore, recent discussions of AI literacy suggest that critical engagement with AI-generated content may be more important than technological familiarity itself (Long & Magerko, 2020; Ng et al., 2021). From this perspective, the educational challenge is not merely helping students access AI-powered tools but enabling them to evaluate, revise, and justify the outputs those tools generate. Post-editing may therefore provide a useful conceptual link between machine translation literacy and broader discussions of critical engagement with AI-generated language.

Although previous research has provided valuable insights into students' MT preferences, frequency of use, and purposes of use, relatively little attention has been paid to post-editing practices or revision-oriented literacy. The present study addresses this gap by focusing on post-editing literacy and revision-oriented engagement with machine-generated output. Rather than focusing on MT use itself, the study investigates how students engage in post-editing, what revision strategies they employ, what factors are associated with post-editing engagement, and what kinds of educational support students desire.

The study is guided by the assumption that moving beyond machine translation use requires attention to post-editing literacy. Specifically, post-editing literacy is not determined primarily by the technological sophistication of the tools students use, but by the extent to which they engage in critical evaluation and revision of machine-generated output. By examining students' post-editing behaviors, revision practices, and evaluation strategies, the study seeks to contribute to emerging discussions of machine translation literacy, post-editing literacy, and AI literacy in higher education. Furthermore, the study explores the educational implications of post-editing literacy by investigating students' perceived needs for MT-related instruction.

The present study is exploratory in nature and aims to describe Korean university students' post-editing experience, revision practices, and perceived educational needs in the context of machine translation use. Rather than directly measuring the development of AI literacy or critical literacy, the study examines post-editing practices as observable indicators of students' critical engagement with machine-generated language. In this sense, the study seeks to provide empirical groundwork for discussing how post-editing literacy may be related to broader concerns in machine translation literacy and AI-mediated language education.

The study addresses the following research questions:

1. To what extent do Korean university students engage in post-editing after using machine translation?
2. How do post-editing practices differ across disciplinary groups in terms of revision methods and revision targets?

3. What learner behaviors and MT literacy variables are associated with post-editing engagement?
4. What do students' perceived educational needs suggest about the pedagogical relevance of post-editing literacy in MT and AI-mediated learning contexts?

II. LITERATURE REVIEW

1. Machine Translation Literacy

The growing accessibility of machine translation (MT) technologies has led researchers to emphasize the importance of machine translation literacy. In this study, MT literacy refers to users' ability to understand, evaluate, and use machine translation critically and responsibly. As MT systems become increasingly integrated into academic, professional, and everyday communication, effective use of these technologies requires considerably more than technical familiarity with translation tools. Users must be able to critically evaluate machine-generated output, recognize its limitations, and make informed decisions regarding its appropriateness for specific communicative contexts.

One of the most influential discussions of MT literacy was proposed by Bowker and Buitrago Ciro (2019), who argued that machine translation literacy extends beyond the operational ability to use MT systems. According to these authors, MT literacy involves understanding how machine translation works, recognizing the strengths and weaknesses of machine-generated output, selecting appropriate tools for specific tasks, and critically evaluating translation quality. From this perspective, MT literacy represents a form of informed and responsible technology use rather than simple technological competence.

The educational importance of MT literacy has become increasingly evident as machine translation tools have become widely available to language learners. Earlier studies examining MT use in educational contexts reported that learners frequently rely on MT systems for vocabulary learning, text comprehension, and academic writing support (Groves & Mundt, 2015; Niño, 2009). While students generally perceive MT as a useful learning resource, researchers have consistently warned against uncritical dependence on machine-generated output. Groves and Mundt (2015), for example, argue that the pedagogical value of MT depends largely on learners' ability to evaluate and interpret translated texts rather than merely accepting them as correct.

Research on general MT users has similarly demonstrated that machine translation is now used across a wide range of academic and everyday contexts. Robertson et al. (2021) reported that many users employ MT primarily for personal text comprehension, while Nunes Vieira et al. (2023) found that users generally express high levels of satisfaction with

MT despite recognizing limitations in translation quality. Evidence from Korean higher education contexts also suggests that machine translation has become deeply embedded in students' academic practices. In a large-scale survey of 464 Korean university students, Kang and Lee (2024) found that MT was used frequently across disciplinary groups and that students viewed MT as a useful resource for academic work, language learning, and everyday communication. These findings highlight the growing importance of machine translation literacy in higher education.

Recent developments in artificial intelligence have further expanded the scope of MT literacy. Neural machine translation and generative AI systems now produce output that is often highly fluent and natural. However, fluency does not necessarily guarantee accuracy, contextual appropriateness, or communicative effectiveness. Consequently, users must develop the ability to identify translation errors, evaluate contextual meaning, and assess the suitability of machine-generated content. Such abilities require critical judgment and reflective evaluation rather than passive acceptance of MT output (Bowker & Buitrago Ciro, 2019).

This emphasis on critical engagement closely aligns MT literacy with broader discussions of AI literacy. Long and Magerko (2020) define AI literacy as a set of competencies that enable individuals to understand, critically evaluate, and effectively interact with AI systems. Similarly, Ng et al. (2021) argue that AI literacy involves not only knowledge of AI technologies but also the ability to evaluate AI-generated information and make informed decisions regarding its use. Applied to machine translation, these perspectives suggest that effective MT use depends not only on technological access but also on users' ability to analyze, interpret, evaluate, and revise machine-generated language.

Accordingly, MT literacy may be conceptualized as a multidimensional construct involving technological knowledge, linguistic awareness, critical evaluation skills, and revision abilities (Bowker & Buitrago Ciro, 2019; Long & Magerko, 2020; Ng et al., 2021). Rather than simply teaching students how to operate MT tools, scholars increasingly emphasize the importance of helping learners critically engage with machine-generated language. Such an approach shifts the focus from technology use itself to the development of informed, reflective, and responsible language practices.

The present study adopts this broader conceptualization of machine translation literacy. Specifically, it focuses on post-editing literacy as a revision-oriented dimension of MT literacy and examines how university students evaluate, revise, and improve machine-generated translations. By investigating students' revision practices and educational needs, the study seeks to contribute to ongoing discussions regarding the role of critical evaluation and revision in machine translation literacy and AI-mediated language education.

2. Post-Editing as a Component of MT Literacy

Post-editing generally refers to the process of revising and improving machine-generated translations through human intervention. Traditionally, post-editing has been associated with professional translation environments, where translators modify machine-translated output to enhance accuracy, fluency, readability, and overall translation quality (O'Brien, 2011). As machine translation technologies have become increasingly integrated into professional translation workflows, post-editing has emerged as an important area of research in translation studies.

Previous studies have primarily examined post-editing from the perspectives of productivity, translation quality, cognitive effort, and translator attitudes toward MT-assisted translation (O'Brien, 2011). Researchers have investigated factors influencing post-editing efficiency, the extent to which machine-translated texts require human revision, and the role of post-editing in professional translation practice (Guerberof Arenas, 2013). Within this tradition, post-editing is typically viewed as a specialized activity performed by trained translators in order to achieve publishable translation quality.

However, recent technological developments have expanded the relevance of post-editing beyond professional translation contexts. Machine translation is now widely used by students, educators, researchers, and general users who frequently interact with machine-generated texts in academic and everyday settings. Consequently, post-editing can no longer be regarded solely as a professional translation skill. Instead, it increasingly represents a broader literacy practice that enables users to critically evaluate and improve machine-generated language.

From an educational perspective, post-editing may be viewed as a practical manifestation of machine translation literacy. Users who engage in post-editing do not simply accept machine-generated output as correct. Rather, they actively evaluate translation quality, identify potential problems, verify meaning, and revise texts according to communicative needs. Such behaviors reflect critical engagement with machine-generated language and demonstrate a level of awareness that extends beyond basic tool usage.

Despite its growing educational significance, relatively little research has examined post-editing among non-professional users. Existing studies have largely focused on translators and translation students, whereas considerably less attention has been paid to how ordinary university students revise machine-generated translations. In particular, little is known about whether students engage in post-editing, what revision strategies they employ, what aspects of translation they revise, and what factors influence their revision behaviors.

Although previous Korean research has documented university students' perceptions and usage patterns of machine translation (Kang & Lee, 2024), relatively little attention has been paid to what students do after receiving machine-generated output. Existing research has

focused primarily on MT adoption, frequency of use, tool preference, and user attitudes, whereas revision behavior has received comparatively little attention. This gap is particularly important because post-editing behaviors may reveal deeper levels of machine translation literacy than simple measures of MT usage frequency. While frequency of use indicates access to machine translation technologies, post-editing reflects how critically users engage with machine-generated output. Students who evaluate accuracy, compare alternative translations, revise discourse structure, or improve contextual appropriateness may demonstrate a more advanced form of MT literacy than those who simply accept machine-generated translations without revision.

Accordingly, the present study conceptualizes post-editing as a critical component of machine translation literacy. By examining university students' post-editing experience, revision practices, and educational needs, the study seeks to extend existing discussions of MT literacy beyond tool usage and toward a deeper understanding of revision-oriented literacy in AI-mediated communication environments.

3. Post-Editing Literacy and Critical AI Literacy

Recent discussions in language education have increasingly emphasized the importance of critical AI literacy and the responsible use of generative technologies. In the present study, critical AI literacy refers to the ability to evaluate AI-generated content, recognize its limitations, and make informed decisions about its use in academic and communicative contexts. As AI-powered systems become deeply embedded in educational environments, scholars argue that learners must develop competencies that extend beyond technical operation and functional use. Rather than simply learning how to access AI tools, students must be able to critically evaluate AI-generated information, recognize its limitations, and make informed decisions regarding its appropriateness and reliability (Long & Magerko, 2020; Ng et al., 2021).

This perspective is particularly relevant to machine translation. Advances in neural machine translation and generative AI have produced systems capable of generating highly fluent and natural-sounding translations. However, linguistic fluency does not necessarily guarantee accuracy, contextual appropriateness, cultural sensitivity, or communicative effectiveness. Consequently, users must actively evaluate machine-generated output rather than assume its correctness. Such evaluations require critical thinking, judgment, and revision skills, all of which are central components of AI literacy.

Within this framework, post-editing may be viewed as a manifestation of critical engagement with AI-generated language rather than as direct evidence of critical AI literacy development. Post-editing requires users to assess translation quality, verify meaning, identify errors, compare alternative interpretations, and revise machine-generated texts

according to communicative needs. These activities involve a level of human agency that goes beyond passive technology use. Rather than treating AI-generated output as a final product, post-editors engage in a process of critical interaction with machine-generated language.

The connection between post-editing and critical literacy should not be understood as a claim that revision activity automatically improves critical literacy. Rather, post-editing can be regarded as a literacy practice that requires several forms of critical engagement. In post-editing, users must identify errors, evaluate the adequacy of machine-generated output, compare source and target meanings, judge contextual appropriateness, and make revision decisions based on communicative purpose. These activities correspond to central concerns in machine translation literacy, which emphasizes users' ability to understand the limitations of MT systems and critically evaluate their output rather than simply operate translation tools (Bowker & Buitrago Ciro, 2019; O'Brien & Ehrensberger-Dow, 2020). Similarly, studies of post-editing in translation education have shown that post-editing requires more than mechanical correction; it involves quality assessment, error diagnosis, and informed decision-making about how machine-generated output should be revised (Guerberof Arenas, 2013; Guerberof Arenas & Moorkens, 2019; O'Brien, 2011). In this sense, post-editing provides a practical context in which critical evaluation of machine-generated language can be observed.

From an educational perspective, post-editing also offers a context for connecting technological assistance and independent linguistic competence. Students who revise machine-translated texts must draw upon their linguistic knowledge, contextual understanding, and communicative judgment. In this sense, post-editing transforms machine translation from a simple support tool into a learning resource that encourages attention to language awareness and critical reflection.

Recent discussions of AI literacy similarly emphasize the importance of evaluation and human oversight in AI-mediated communication (Guerberof Arenas & Moorkens, 2019; Long & Magerko, 2020; Ng et al., 2021). These scholars argue that responsible AI use requires users to question, verify, and critically interpret AI-generated content rather than accept it uncritically. Applied to machine translation, this perspective suggests that the quality of MT use may depend less on the technological sophistication of the tools themselves and more on users' ability to evaluate and revise machine-generated output.

This perspective is particularly relevant in higher education contexts. Kang and Lee (2024) reported that university students widely adopted machine translation technologies across academic settings; however, adoption alone does not necessarily indicate literacy. Building on previous research suggesting that effective MT use depends on users' ability to evaluate and interpret machine-generated output (Groves & Mundt, 2015; Groves & Mundt, 2021; Kang & Lee, 2024), the present study proposes that post-editing literacy may serve as a

useful context for examining critical engagement with AI-generated language. In this view, students who actively evaluate, question, and revise machine-generated translations demonstrate a deeper level of engagement than those who merely use MT tools without critically examining their output.

Accordingly, the present study conceptualizes post-editing literacy as a revision-oriented form of machine translation literacy that is relevant to broader discussions of AI literacy. By examining how university students revise machine-translated texts and what educational support they require, the study seeks to contribute to a growing body of research that views AI literacy not merely as technological competence, but as critical and reflective engagement with AI-generated content.

III. METHODS

1. Dataset and Participants

The present study analyzed survey data on machine translation (MT) use and machine translation literacy among Korean university students in the Seoul metropolitan area of South Korea.[1] The survey was administered to undergraduate students enrolled at a university located in the Seoul metropolitan area.

A total of 464 valid responses were included in the analysis. Respondents represented a wide range of academic disciplines, including Humanities, Business, Social Sciences, Natural Sciences, Engineering/ICT, Medicine, and Nursing. Because the Medicine and Nursing groups each contained only one participant, these groups were excluded from disciplinary comparison analyses. Consequently, analyses involving academic affiliation were conducted using five major disciplinary categories (N = 462), whereas analyses unrelated to disciplinary affiliation were performed using the full sample (N = 464).

2. Survey Instrument

The original questionnaire was designed to investigate university students' machine translation use and machine translation literacy. The survey consisted of five sections: (a) respondent information, (b) general machine translation experience, (c) machine translation literacy, (d) comprehensive understanding of machine translation, and (e) broader understanding of machine translation and generative artificial intelligence (AI).

[1] The dataset was originally collected as part of a survey examining machine translation use and machine translation literacy among undergraduate students. Identifying information related to the original study has been withheld for blind review.

The questionnaire included items addressing MT usage patterns, preferred translation tools, evaluation behaviors, post-editing practices, and educational needs related to MT literacy. The present study focuses specifically on survey items associated with post-editing literacy.

The analyzed items examined: (a) whether respondents had experience revising machine-translated output after receiving it, (b) the methods used when revising machine-generated texts, (c) the aspects of translation targeted for revision, (d) machine translation literacy behaviors such as translation accuracy checking and academic use of MT, and (e) educational needs related to MT literacy and post-editing instruction.

Most revision-method and revision-target items were presented as multiple-response questions, allowing respondents to select more than one response option. For statistical analyses, each response option was recoded as a separate binary variable when appropriate. Because the survey relied on self-reported responses, the data reflect participants' reported experiences, perceptions, and revision practices rather than directly observed post-editing behavior. Thus, the findings should be interpreted as patterns of self-reported post-editing engagement among university students.

3. Conceptualization of Post-Editing Literacy

In the present study, post-editing literacy is defined as the ability and willingness to critically evaluate and revise machine-generated translation output. Unlike traditional conceptions of post-editing, which primarily focus on professional translation workflows and translator productivity (O'Brien, 2011), the present study adopts a broader educational perspective and conceptualizes post-editing as a literacy practice performed by general users of machine translation.

This conceptualization is informed by recent discussions of machine translation literacy and critical AI literacy, both of which emphasize the importance of evaluation, judgment, and responsible engagement with machine-generated content (Bowker & Buitrago Ciro, 2019; Long & Magerko, 2020; Ng et al., 2021). From this perspective, post-editing literacy reflects not merely the use of MT technologies but the extent to which users critically engage with machine-generated output and actively improve it according to communicative needs.

Accordingly, post-editing literacy encompasses: (a) engagement in post-editing after obtaining machine-translated output, (b) revision strategies including source-text comparison, contextual verification, and dictionary consultation, (c) attention to revision targets including lexical accuracy, sentence coherence, readability, and content appropriateness, and (d) critical evaluation behaviors including checking translation accuracy and comparing outputs across multiple tools.

In this study, these dimensions are operationalized through survey items related to post-

editing experience, revision methods, revision targets, and MT literacy behaviors. Collectively, these variables provide an indirect measure of students' post-editing literacy and their capacity to critically evaluate and revise machine-generated translations. Thus, post-editing literacy is treated not simply as a technical skill but as a form of critical machine translation literacy involving evaluation, judgment, and revision.

4. Variables

Four groups of variables were analyzed in the present study: post-editing variables, disciplinary variables, machine translation literacy variables, and educational needs variables. Together, these variables provided a framework for examining the extent of students' post-editing engagement, disciplinary variation in revision behaviors, factors associated with post-editing literacy, and students' perceived needs for machine translation literacy education.

1) Post-Editing Variables

The primary dependent variable was post-editing experience, measured through a dichotomous survey item asking whether respondents had revised machine-translated output. Additional post-editing variables included revision methods and revision targets.

Revision methods included source-text comparison, contextual verification, comparison across different MT tools, consultation of dictionaries or language-learning resources, consultation with experts or native speakers, and seeking assistance from friends or instructors.

Revision targets referred to the aspects of translation that respondents most frequently revised, including lexical and proper-noun correction, sentence connection, readability, and content addition.

2) Disciplinary Variables

Academic affiliation was classified into five major disciplinary categories: Humanities, Business, Social Sciences, Natural Sciences, and Engineering/ICT. These categories were used to examine disciplinary differences in post-editing engagement, revision methods, and revision targets.

3) Machine Translation Literacy Variables

To identify factors associated with post-editing engagement, several MT literacy variables

were examined. These included translation accuracy checking, academic use of machine translation, use of generative AI-based MT tools, and use of multiple MT tools (tool mixing). These variables were selected because previous research suggests that critical evaluation behaviors play an important role in the development of machine translation literacy (Bowker & Buitrago Ciro, 2019).

In addition to these variables, several contextual MT-use variables available in the dataset were considered, including overall MT use frequency, frequency of MT use for academic study, primary text types translated through MT, and text types translated using generative AI-based MT tools. These variables were used to contextualize students' post-editing engagement and to clarify the broader conditions under which revision-oriented engagement with machine-generated output may occur.

However, the dataset did not include direct measures of post-editing frequency, participants' standardized English proficiency, or the difficulty level of the specific texts being translated. Therefore, the present analysis focused on the available variables most closely related to post-editing engagement, including post-editing experience, revision methods, revision targets, MT use frequency, academic MT use, translation accuracy checking, generative AI-based MT use, tool mixing, and text-type-related responses.

4) Educational Needs Variables

The final group of variables addressed students' perceived educational needs regarding MT literacy. Respondents were asked about their willingness to participate in MT-related educational programs and the topics they considered most important. These included translation error recognition and correction, cultural and contextual appropriateness, MT tool selection, language-learning applications of MT, interpretation and utilization of MT output, and privacy and ethical issues associated with MT use.

5. Data Analysis

The data were analyzed using IBM SPSS Statistics 29.0. Descriptive statistics, including frequencies and percentages, were first calculated to identify overall patterns of post-editing experience, revision methods, revision targets, and educational needs.

To examine disciplinary differences and relationships among categorical variables, chi-square tests of independence were conducted. These analyses were used to investigate associations between post-editing experience and disciplinary affiliation, revision methods, revision targets, machine translation literacy variables, and educational needs.

Prior to inferential analyses, frequency distributions and contingency tables were examined to ensure that expected cell frequencies met the assumptions of chi-square testing.

For multiple-response items, each response option was recoded as a separate binary variable, and chi-square tests were conducted for each response option.

Because statistical significance alone may not adequately reflect the strength of associations, effect sizes were calculated using Cramér's *V* for all statistically significant chi-square results. Following Cohen (1988), Cramér's *V* values of approximately .10, .30, and .50 were interpreted as representing small, medium, and large effect sizes, respectively.

The analyses focused on four major dimensions: (a) overall post-editing engagement, (b) disciplinary differences in post-editing practices, (c) machine translation literacy factors associated with post-editing engagement, and (d) educational needs related to machine translation literacy and post-editing instruction. Statistical significance was set at $p < .05$ for all analyses.

Given the self-reported nature of the survey data and the use of chi-square tests of independence, the analyses were intended to identify associations among reported behaviors and perceptions rather than to establish causal relationships or directly measure actual revision performance. Therefore, the findings should not be interpreted as evidence that post-editing improves academic achievement, language proficiency, or AI literacy. Instead, the analyses describe patterns of post-editing engagement and examine how such engagement is associated with MT-related behaviors and perceived educational needs.

IV. RESULTS

1. Overall Post-Editing Experience

Among the 464 students surveyed, 279 (60.1%) reported that they had revised machine-translated output after receiving it, whereas 185 students (39.9%) indicated that they had never engaged in post-editing. Table 1 presents the overall distribution of post-editing experience among the respondents.

TABLE 1
Overall Post-Editing (PE) Experience

Post-Editing Experience	*n*	%
PE	279	60.1
Non-PE	185	39.9
Total	464	100.0

The findings suggest that post-editing is a common practice among Korean university students. Notably, a majority of respondents reported revising MT-generated texts rather than accepting them without modification. This pattern indicates that many students engage in

some form of critical interaction with machine-generated output, even when using readily accessible MT tools.

At the same time, the proportion of students who reported no post-editing experience remains substantial, accounting for nearly two-fifths of the sample. This finding suggests that while post-editing has become a common behavior, a considerable number of students may still rely on machine-generated translations without systematic evaluation or revision.

Overall, the results indicate that post-editing occupies an important place in students' MT use practices and may represent a meaningful indicator of machine translation literacy beyond simple measures of MT adoption and frequency of use.

2. Disciplinary Differences in Post-Editing Experience

To investigate disciplinary differences, respondents from the Medicine and Nursing groups were excluded because each group contained only one participant. The analysis therefore focused on five major disciplinary categories ($N = 462$).

As shown in Table 2, substantial variation was observed across disciplinary groups. Humanities students reported the highest level of post-editing engagement, with 68.7% indicating that they had revised machine-translated output. In contrast, Engineering/ICT students demonstrated the lowest post-editing participation rate (47.5%). Business students (59.5%), Social Sciences students (54.5%), and Natural Sciences students (51.9%) fell between these two extremes.

A chi-square test of independence revealed a statistically significant association between disciplinary affiliation and post-editing experience, $\chi^2(4, N = 462) = 15.57$, $p = .004$, Cramér's $V = .184$. The effect size indicates a small but meaningful association between disciplinary background and post-editing engagement.

TABLE 2
Disciplinary Differences in Post-Editing Experience

College	PE	Non-PE	PE Rate (%)
Humanities	147	67	68.7
Business	47	32	59.5
Social Sciences	12	10	54.5
Natural Sciences	14	13	51.9
Engineering/ICT	57	63	47.5

The observed frequencies suggest that Humanities students were relatively more likely to engage in post-editing, whereas Engineering/ICT students were relatively less likely to do so. These patterns indicate that students from different academic disciplines do not engage with machine-translated output in the same manner.

Although post-editing was observed across all disciplinary groups, the findings indicate

that disciplinary background is associated with different levels of revision-oriented engagement with machine translation. Given that post-editing is conceptualized in the present study as an indicator of machine translation literacy, these findings provide preliminary evidence that the development of post-editing literacy may vary across disciplinary contexts.

3. Disciplinary Differences in Post-Editing Methods

Table 3 presents the post-editing methods reported by students who indicated prior post-editing experience ($N = 279$). Direct comparison with the source text was the most frequently reported revision strategy, selected by 73.5% of respondents. This was followed by contextual rechecking of translated output (59.5%), comparison across different MT tools (34.8%), and consultation of dictionaries or language-learning resources (31.2%). Less frequently reported methods included asking friends or instructors for feedback (6.8%) and requesting review from experts or native speakers (4.7%).

To examine whether revision strategies differed across disciplinary groups, a series of chi-square tests of independence was conducted. Among the post-editing methods examined, only dictionary or language-learning resource consultation showed a statistically significant disciplinary difference, $\chi^2(4, N = 277) = 13.69$, $p = .008$, Cramér's $V = .222$. The effect size indicates a small-to-moderate association between disciplinary background and dictionary consultation behavior.

Students in the Social Sciences (50.0%) and Humanities (38.8%) reported substantially higher rates of dictionary consultation than students in Business (23.4%), Engineering/ICT (21.1%), and Natural Sciences (7.1%). This pattern suggests that students in language- and text-oriented disciplines may be more likely to supplement MT output with additional lexical resources during the revision process.

No statistically significant disciplinary differences were observed for direct source-text comparison, contextual rechecking, or comparison across multiple MT tools, consulting experts or native speakers, or asking friends or instructors. Specifically, no significant disciplinary differences were found for consulting experts or native speakers, $\chi^2(4, N = 277) = 1.38$, $p = .847$, or asking friends or instructors, $\chi^2(4, N = 277) = 3.51$, $p = .477$. These findings indicate that while most revision strategies are broadly shared across disciplinary groups, dictionary consultation appears to represent a more discipline-sensitive post-editing behavior.

Overall, the results suggest that students from different disciplinary backgrounds employ largely similar post-editing strategies, with the notable exception of dictionary consultation, which appears to be more common among students in Humanities and Social Sciences.

TABLE 3
Revision Methods and Disciplinary Associations

Revision Method	*n*	%	χ^2	*p*
Direct comparison with source text	205	73.5	4.80	.308
Contextual rechecking	166	59.5	4.73	.316
Comparing different MT tools	97	34.8	5.58	.233
Consulting dictionaries/language-learning tools	87	31.2	13.69	.008**
Consulting experts/native speakers	13	4.7	1.38	.847
Asking friends/instructors	19	6.8	3.51	.477

* $p < .05$. ** $p < .01$. *** $p < .001$.

4. Disciplinary Differences in Revision Targets

Table 4 presents the revision targets reported by students with post-editing experience. Lexical and proper-noun correction was the most frequently reported revision target, selected by 75.6% of respondents. This was followed by sentence-connection revision (72.8%), readability improvement (60.9%), and content addition (19.0%).

To examine disciplinary differences in revision targets, a series of chi-square tests of independence was conducted. Significant disciplinary differences emerged for sentence-connection revision, $\chi^2(4, N = 277) = 13.29$, $p = .010$, and readability improvement, $\chi^2(4, N = 277) = 9.89$, $p = .042$. In contrast, no statistically significant disciplinary differences were observed for lexical and proper-noun correction or content addition.

Humanities students reported the highest rates of sentence-connection revision (81.6%) and readability-oriented revision (68.0%). These findings suggest that Humanities students are more likely to engage in discourse-level revision activities that focus on textual coherence and reader accessibility. By comparison, students from other disciplinary groups reported lower levels of engagement in these forms of revision.

Notably, lexical and proper-noun correction did not significantly differ across disciplinary groups. This suggests that vocabulary-level revision represents a broadly shared post-editing practice regardless of academic background. In contrast, disciplinary differences appear to emerge primarily in higher-level revision activities involving sentence connection and readability rather than lexical correction.

Overall, the findings indicate that while students across disciplines commonly revise lexical aspects of MT-generated texts, Humanities students are more likely to engage in discourse-oriented revision aimed at improving coherence and readability. This pattern points to meaningful disciplinary variation in the depth and focus of post-editing practices.

TABLE 4
Revision Targets and Disciplinary Associations

Revision Target	*n*	%	χ^2	*p*
Lexical/Proper noun correction	211	75.6	5.31	.257
Sentence-connection revision	203	72.8	13.29	.010*
Readability improvement	170	60.9	9.89	.042*
Content addition	53	19.0	6.26	.180

* $p < .05$. ** $p < .01$. *** $p < .001$.

5. Factors Associated with Post-Editing Engagement

Table 5 presents the factors associated with post-editing engagement. Several machine translation literacy behaviors were found to be significantly related to whether students engaged in post-editing after receiving machine-generated output.

First, students who reported checking the accuracy of machine-translated output were significantly more likely to engage in post-editing than those who did not, $\chi^2(1, N = 464) = 18.14$, $p < .001$, Cramér's $V = .198$. Among the variables examined, accuracy checking demonstrated the strongest association with post-editing engagement, indicating a small-to-moderate effect size.

Second, academic use of machine translation was positively associated with post-editing participation, $\chi^2(1, N = 464) = 5.25$, $p = .022$, Cramér's $V = .106$. Although the effect size was relatively small, students who used MT for academic purposes were more likely to revise machine-generated translations than those who did not.

In contrast, the use of generative AI-based MT tools was not significantly associated with post-editing engagement, $\chi^2(1, N = 464) = 2.31$, $p = .128$. Similarly, the use of multiple MT tools (tool mixing) did not show a statistically significant relationship with post-editing participation, $\chi^2(1, N = 464) = 4.48$, $p = .107$.

Taken together, these findings indicate that post-editing engagement is more strongly associated with critical evaluation behaviors than with exposure to advanced translation technologies. Students who actively verify translation accuracy and use MT in academic contexts appear more likely to revise machine-generated output, whereas merely using generative AI-based MT systems or multiple translation tools does not necessarily lead to greater post-editing engagement.

TABLE 5
Factors Associated with Post-Editing Engagement

Variable	χ^2	*p*	Cramér's *V*
Accuracy checking	18.14	< .001***	.198
Academic MT use	5.25	.022*	.106
GenAI MT use	2.31	.128	-
Tool mixing	2.60	.107	-

* $p < .05$. ** $p < .01$. *** $p < .001$.

6. Educational Needs Related to Post-Editing Literacy

Table 6 presents students' educational needs related to machine translation literacy. Overall, respondents expressed strong interest in MT-related instruction regardless of disciplinary background or post-editing experience.

The most frequently selected educational topic was training in recognizing and correcting translation errors (59.4%), followed by evaluating cultural and contextual appropriateness (45.7%), selecting appropriate MT tools for different purposes (40.6%), and using machine translation effectively for language learning (38.6%). Interest in interpreting and utilizing MT output was reported by 27.3% of respondents, whereas privacy and ethical issues were selected by only 8.4%.

To determine whether educational needs differ according to post-editing experience, a series of chi-square tests was conducted. Students with post-editing experience were significantly more likely to express interest in learning how to evaluate cultural and contextual appropriateness in machine-translated texts, $\chi^2(1, N = 464) = 7.80$, $p = .005$. They were also significantly more likely to seek training in interpreting and utilizing machine-translated output, $\chi^2(1, N = 464) = 4.20$, $p = .040$.

In contrast, no statistically significant differences were observed for training in error recognition and correction, MT tool selection, or language-learning applications of MT. These findings suggest that students with and without post-editing experience share similar interests in foundational MT skills but differ in their interest in more interpretive and context-sensitive aspects of machine translation.

Overall, the results indicate that students who actively engage in post-editing demonstrate greater awareness of higher-level translation issues extending beyond simple error correction. Their educational interests appear to reflect a growing concern with interpretation, contextual appropriateness, and the effective evaluation of machine-generated language.

TABLE 6
Educational Needs Related to Post-Editing Literacy

Educational Need	*n*	%	PE vs. Non-PE Comparison	
			χ^2	*p*
Error recognition and correction	268	59.4	1.05	.304
Cultural/Contextual appropriateness	206	45.7	7.80	.005**
Selecting appropriate MT tools	183	40.6	0.01	.928
MT for language learning	174	38.6	1.81	.178
Interpreting MT output	123	27.3	4.20	.040*
Privacy and ethical use	38	8.4	0.25	.614

* $p < .05$. ** $p < .01$. *** $p < .001$.

V. DISCUSSION

The present study examined Korean university students' post-editing practices and perceived educational needs in the context of machine translation use. While previous studies have primarily focused on machine translation adoption, frequency of use, and user perceptions, the present findings suggest that a more important distinction may lie in how students interact with machine-generated output after receiving it.

A central finding of the study is that post-editing literacy appears to be more closely associated with critical revision behavior than with tool use itself. Although machine translation technologies continue to evolve rapidly and generative AI systems have attracted considerable attention in educational contexts, the present results indicate that simply using advanced MT tools does not necessarily lead to greater engagement in post-editing. In contrast, behaviors such as checking translation accuracy and using MT for academic purposes were significantly associated with post-editing participation.

This finding suggests that machine translation literacy should not be conceptualized primarily as technological competence. Rather, it may be more accurately understood as a form of critical literacy involving evaluation, revision, and decision-making. Students who engage in post-editing appear to adopt a more active role in the translation process, treating machine-generated output as a draft that requires human judgment rather than as a final product. Such behavior reflects a higher level of engagement with linguistic meaning and communicative effectiveness.

Another notable finding concerns disciplinary differences in revision practices. Humanities students demonstrated significantly higher rates of post-editing participation than Engineering/ICT students. More importantly, the differences extended beyond participation itself and were reflected in the nature of revision activities. Humanities students were more likely to revise sentence connections, improve readability, and consult dictionaries or language-learning resources during post-editing. These findings suggest that disciplinary background influences not only whether students revise machine-translated texts but also how deeply they engage with revision.

One possible explanation for these disciplinary differences is that students in text-oriented disciplines may receive more sustained exposure to reading, writing, interpretation, and language-focused evaluation in their coursework. Humanities students, in particular, are often required to attend to textual coherence, rhetorical flow, lexical nuance, and audience-oriented meaning. Such academic training may encourage them to approach machine-translated output not merely as a functional substitute for comprehension but as a text that requires interpretation, evaluation, and refinement. In contrast, students in Engineering/ICT and other more task-oriented disciplines may use MT primarily for information access or functional comprehension, which may reduce the perceived need for discourse-level revision.

This interpretation is also consistent with the finding that lexical correction was common across disciplinary groups, whereas disciplinary differences emerged more clearly in sentence-connection revision, readability improvement, and dictionary consultation.

Particularly noteworthy is the distinction between lexical-level and discourse-level revision. Lexical correction did not significantly differ across disciplinary groups, indicating that vocabulary-level revision represents a common practice among machine translation users regardless of academic background. In contrast, significant differences emerged for sentence-connection revision and readability improvement. These revision targets require attention to coherence, discourse organization, and overall communicative effectiveness rather than isolated linguistic errors. Such findings suggest that higher-order post-editing literacy involves moving beyond word-level correction toward discourse-level evaluation and refinement.

This pattern suggests that post-editing engagement may develop at different levels across disciplinary contexts. The fact that lexical correction was widely reported across disciplinary groups indicates that surface-level revision may represent a relatively accessible form of post-editing for most MT users. However, discourse-level revision requires a more advanced form of textual awareness, including sensitivity to coherence, rhetorical flow, readability, and communicative purpose. Therefore, the disciplinary variation observed in this study may reflect differences not simply in whether students use MT, but in the level at which they intervene in machine-generated language. Students in disciplines that place greater emphasis on textual interpretation and language-mediated argumentation may be more inclined to engage in deeper revision, whereas students in more information-oriented fields may limit revision to functional correction or comprehension support.

A further interpretation may be offered by considering the relationship between disciplinary training and the textual genres students are likely to encounter. Humanities students are frequently required to work with argumentative, interpretive, and rhetorically organized texts, where meaning is constructed not only through individual words but also through cohesion, tone, style, and discourse flow. In such genres, a machine-translated sentence may be lexically accurate but still fail to achieve coherence, readability, or rhetorical appropriateness in the target language. This may explain why Humanities students showed stronger engagement in sentence-connection revision and readability improvement. By contrast, students in Engineering/ICT and other information-oriented fields may more often encounter technical, informational, or task-based texts, where the primary goal of MT use may be to obtain accurate terminology or functional comprehension. In these contexts, lexical checking or factual understanding may be perceived as sufficient, while broader discourse-level refinement may be less immediately necessary. Thus, the observed disciplinary differences may reflect not only students' general revision habits but also the genre-specific demands of the texts with which they commonly engage.

An interesting pattern emerged in the perceived educational needs analysis. Although both groups expressed strong interest in learning how to recognize and correct translation errors, students with post-editing experience demonstrated significantly greater interest in interpreting machine-translated output and evaluating cultural and contextual appropriateness. This finding suggests that post-editing experience may be associated with greater attention to interpretive and context-sensitive dimensions of machine translation use, rather than only surface-level concerns about correctness.

The perceived educational needs analysis further supports this interpretation. Students with post-editing experience were significantly more likely to express interest in learning how to evaluate cultural and contextual appropriateness in machine-translated texts. Unlike traditional concerns about grammar or vocabulary accuracy, cultural appropriateness requires users to consider audience expectations, contextual meaning, and communicative intent. Similarly, students with post-editing experience showed greater interest in learning how to interpret and utilize machine-translated output effectively. Together, these findings indicate that experienced post-editors may report a broader awareness of translation quality that extends beyond surface-level linguistic correctness.

Taken together, the findings point toward a possible continuum of machine translation literacy rather than a confirmed developmental sequence. At one end, students may use machine translation primarily as a tool for obtaining information quickly. At another, more revision-oriented end, users may evaluate output quality, verify accuracy, revise linguistic errors, and attend to discourse organization, readability, contextual appropriateness, and communicative effectiveness. Post-editing literacy may therefore provide a useful conceptual link between basic machine translation use and broader discussions of critical engagement with AI-generated language.

The findings have several pedagogical implications. First, machine translation education should move beyond teaching students which tools to use. Because tool use alone was not significantly associated with post-editing engagement, instructional efforts that focus exclusively on technological features may have limited educational value. Instead, greater emphasis should be placed on developing students' ability to evaluate, revise, and justify translation choices.

Second, post-editing activities should be incorporated into language and translation classrooms as explicit learning tasks. Rather than treating machine translation as either a threat to language learning or a shortcut to assignment completion, educators may use machine-generated output as a resource for critical analysis and revision practice. Such activities may provide opportunities for learners to reflect on linguistic form, discourse structure, and contextual appropriateness while engaging with digital and AI-mediated language tools.

Third, the findings suggest the need for a post-editing literacy education model tailored to

students' disciplinary backgrounds and textual needs. Because students from different academic fields appear to engage with machine-translated output in different ways, a uniform approach to MT instruction may not be sufficient. For students in Humanities and other text-oriented disciplines, instruction may focus on discourse-level revision, including coherence, readability, rhetorical flow, cultural appropriateness, and audience awareness. These students may benefit from activities that require them to compare machine-translated output with source texts, revise paragraph-level organization, and justify stylistic or rhetorical choices. For students in Engineering/ICT and other information-oriented disciplines, instruction may begin with terminology accuracy, factual consistency, and functional comprehension, and then gradually extend to sentence connection, readability, and genre-appropriate communication. In this way, post-editing literacy education can be designed as a staged model that begins with lexical and factual verification and develops toward discourse-level evaluation and context-sensitive revision.

Finally, the results suggest that machine translation literacy and AI literacy may be discussed as related constructs in the context of AI-mediated language use. As generative AI becomes increasingly integrated into academic communication, students need opportunities to question, evaluate, and refine AI-generated content rather than accept it uncritically. However, the present study does not demonstrate that post-editing engagement improves students' AI literacy. Rather, it suggests that post-editing practices may offer a useful context for examining how students critically engage with machine-generated language in higher education. Post-editing literacy may therefore be considered a relevant competency for discussing responsible and effective AI-assisted communication in higher education.

It should be noted, however, that the present study does not provide evidence of the educational effectiveness of post-editing instruction or of improvement in students' AI literacy. The findings are based on self-reported survey data and chi-square tests of association and should therefore be interpreted as indicating patterns of reported post-editing engagement rather than learning outcomes or causal effects.

Overall, the findings suggest a shift in perspective from machine translation use to post-editing literacy as a revision-oriented dimension of machine translation literacy. The educational challenge is no longer simply helping students access machine translation technologies but enabling them to engage critically with machine-generated language. In this regard, post-editing literacy may offer a useful lens for understanding students' reported engagement with increasingly AI-mediated communicative environments.

The future of machine translation education may depend less on teaching students how to use MT tools and more on providing structured opportunities for students to critically evaluate, revise, and reflect on machine-generated language.

VI. CONCLUSION

This study investigated post-editing literacy among Korean university students by analyzing survey data on machine translation literacy and revision practices collected from a university located in the Seoul metropolitan area of South Korea. Moving beyond traditional research on MT adoption and usage frequency, the study focused on how students engage with machine-generated output after receiving it, how they revise translations, and what educational support they perceive as necessary.

The findings revealed that post-editing is a common practice among Korean university students, with approximately 60% of respondents reporting experience revising machine-translated texts. Significant disciplinary differences were observed, particularly in revision depth and revision strategies. Humanities students demonstrated higher levels of engagement in discourse-level revision activities, including sentence-connection revision, readability improvement, and dictionary consultation. In contrast, lexical correction appeared to be a common practice across disciplinary groups.

The results also suggest that post-editing literacy is more closely associated with critical evaluation behaviors than with technological exposure alone. Students who regularly checked translation accuracy and used MT for academic purposes were more likely to engage in post-editing, whereas the use of generative AI-based MT tools was not significantly associated with post-editing participation. These findings indicate that effective MT use depends less on the sophistication of the tools themselves and more on users' reported willingness to critically evaluate and revise machine-generated output.

Analysis of perceived educational needs further revealed that students with post-editing experience expressed stronger interest in issues related to cultural appropriateness and interpretation of machine-translated texts. This pattern suggests that post-editing engagement may be associated with greater awareness of higher-order dimensions of translation quality beyond surface-level linguistic accuracy.

Taken together, the findings suggest that post-editing literacy may be understood as a relevant dimension of machine translation literacy and as a useful entry point for discussing critical engagement with AI-generated language. As AI-assisted communication becomes increasingly common in higher education, the educational challenge is no longer simply helping students access machine translation technologies. Rather, it is enabling them to critically evaluate, revise, and responsibly use machine-generated language.

Several limitations should be acknowledged. First, the data were collected from students at a single university located in the Seoul metropolitan area of South Korea, which may limit the generalizability of the findings. Second, the study relied on self-reported survey responses rather than direct observation of actual post-editing behavior. Therefore, the findings reflect students' perceived and reported revision practices, which may not fully

correspond to their actual post-editing performance in task-based settings. Future research may benefit from incorporating think-aloud protocols, screen-recording data, or text-revision analyses to examine post-editing processes more directly.

Third, although the dataset included several contextual variables such as overall MT use frequency, frequency of MT use for academic study, academic use of MT, and text-type-related responses, it did not include direct measures of post-editing frequency, standardized English proficiency, or the difficulty level of the specific texts being translated. These variables may influence students' post-editing behavior and should be examined more directly in future studies.

In addition, because the study used cross-sectional self-reported survey data and chi-square tests of association, it cannot determine whether post-editing engagement leads to improvements in academic achievement, language proficiency, or AI literacy. Future experimental, longitudinal, or task-based studies may benefit from incorporating learner proficiency, text difficulty, genre, revision frequency, actual revision products, think-aloud protocols, screen-recording data, or text-revision analyses in order to examine post-editing processes and educational effects more directly.

Despite these limitations, the study contributes to emerging discussions of machine translation literacy by shifting attention from tool use to revision-oriented literacy. The findings suggest that post-editing literacy may offer a useful lens for understanding students' reported engagement with increasingly AI-mediated academic and communicative environments. More broadly, the study highlights the pedagogical importance of critical evaluation and revision practices in responsible AI-mediated language use. Future MT education should therefore move beyond teaching students how to use translation tools and instead provide structured opportunities for them to critically evaluate, revise, and reflect on machine-generated language.

REFERENCES

Bowker, L., & Buitrago Ciro, J. (2019). *Machine translation and global research: Towards improved machine translation literacy in the scholarly community*. Emerald Publishing. https://doi.org/10.1108/9781787567214

Cohen, J. (1988). *Statistical power analysis for the behavioral sciences* (2nd ed.). Lawrence Erlbaum Associates.

Groves, M., & Mundt, K. (2015). Friend or foe? Google Translate in language for academic purposes. *English for Specific Purposes*, *37*, 112-121. https://doi.org/10.1016/j.esp.2014.09.001

Groves, M., & Mundt, K. (2021). A ghostwriter in the machine? Attitudes of academic staff towards machine translation use in internationalized higher education. *Journal of English for Academic Purposes*, *50*, 1-11. https://doi.org/10.1016/j.jeap.2021.100957

Guerberof Arenas, A. (2013). What do professional translators think about post-editing? *The Journal of Specialised Translation*, 19, 75-95. https://doi.org/10.26034/cm.jostrans.2013.424

Guerberof Arenas, A., & Moorkens, J. (2019). Machine translation and post-editing training as part of a master's programme. *The Journal of Specialised Translation,* 31, 217-238.

Kang, J., & Lee, Y. C. (2024). University students' perceptions and usage patterns of machine translation. *Journal of Translation Studies*, *25*(3), 87-121. https://doi.org/10.15749/jts.2024.25.3.004

Li, F. (2023). A survey of translation learners' uses and perceptions of neural machine translation. *Theory and Practice in Language Studies*, *13*(11), 3039-3048. https://doi.org/10.17507/tpls.1311.34

Long, D., & Magerko, B. (2020). What is AI literacy? Competencies and design considerations. *Proceedings of the 2020 CHI Conference on Human Factors in Computing Systems*, 1-16. https://doi.org/10.1145/3313831.3376727

Ng, D. T. K., Leung, J. K. L., Chu, S. K. W., & Qiao, M. S. (2021). Conceptualizing AI literacy: An exploratory review. *Computers and Education: Artificial Intelligence*, *2*, 100041. https://doi.org/10.1016/j.caeai.2021.100041

Niño, A. (2009). Machine translation in foreign language learning: Language learners' and tutors' perceptions of its advantages and disadvantages. *ReCALL*, *21*(2), 241-258. https://doi.org/10.1017/S0958344009000172

Nunes Vieira, L., O'Sullivan, C., Zhang, X., & O'Hagan, M. (2023). Machine translation in society: Insights from UK users. *Language Resources and Evaluation*, *57*(2), 893-914. https://doi.org/10.1007/s10579-022-09589-1

O'Brien, S. (2002). Teaching post-editing: A proposal for course content. In *Proceedings of the 6th EAMT Workshop: Teaching Machine Translation* (pp. 99-106). European Association for Machine Translation.

O'Brien, S. (2011). Towards predicting post-editing productivity. *Machine Translation*, *25*(3), 197-215. https://doi.org/10.1007/s10590-011-9096-7

O'Brien, S., & Ehrensberger-Dow, M. (2020). MT literacy: A cognitive view. *Translation, Cognition & Behavior*, *3*(2), 145-164. https://doi.org/10.1075/tcb.00038.obr

Robertson, S., Díaz, C., & Cadwell, P. (2021). Everyday users of machine translation: User needs, expectations, and human intervention. *Machine Translation*, *35*(4), 321-346.

Examples in: English
Applicable Languages: English
Applicable Levels: Tertiary

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