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USING MACHINE TRANSLATION IN ENGLISH-VIETNAMESE TRANSLATION: PERSPECTIVES FROM ENGLISH- VIETNAMESE TRANSLATION MAJOR STUDENTS

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Abstract. This qualitative research, involving 15 English-Vietnamese translation majors, utilizes interviews to investigate how students use Machine Translation (MT) tools. The study is motivated by the need for practical insights and reflections on current translation training trends. It meticulously examines various MT tools, emphasizing the necessity of a thoughtful approach within training programs. While Google Translate remains prevalent, exploration of alternatives like ChatGPT reveals a changing tech landscape, emphasizing the necessity for a delicate tool balance. The benefits include efficient handling of extensive texts and the introduction of novel translation approaches. However, a critical perspective underscores the importance of nuanced language understanding to prevent oversimplification of translation. The study also addresses challenges, such as idiomatic expressions and tool limitations, emphasizing the pivotal role of training programs in addressing issues, educating users, and enhancing tools. In conclusion, the research advocates for an educational shift, urging programs to foster critical thinking. The challenges articulated by students not only contribute to the academic discourse but also serve as a guide for collaborations between academia and industry, thereby better preparing students for the evolving tech landscape.

Keywords. Translation Major Students, Machine Translation, Translation training, Qualitative Study

1. Introduction:

In the dynamic landscape of translation training, particularly in Vietnam, the integration of technology, specifically Machine Translation (MT), has become a pivotal aspect (Nguyen,

2020; Nguyen & Tran, 2019). This transformative shift is propelled by the increasing reliance on automated systems that interpret and generate translations, challenging the conventional practices of human translation (Tran, 2018). At the forefront of this technological revolution are English translation major students, navigating the intricacies of translation practice courses in Vietnamese universities (Nguyen & Ho, 2021).

Machine Translation, the computerized interpretation of text from one language to another, has significantly impacted language education (Hutchins, 2003; Niño, 2009). It offers practical advantages such as handling large volumes of translation, maintaining consistent terminology, and providing cost-effectiveness (Tran & Nguyen, 2017). Despite the evident positive perception of MT among language tutors and learners, its nuanced role and the challenges faced by students during implementation remain underexplored, especially within the Vietnamese context (Nguyen & Ho, 2021).

As the field progresses, traditional tools like Google Translate coexist with emerging technologies, such as advanced language models like ChatGPT, DeepL, and Microsoft Translator (Tran, 2020). These tools represent a new frontier, providing alternative avenues for machine-assisted translation and adding layers of complexity to students' experiences (Nguyen & Ho, 2021). While existing literature explores the impact of MT, there is a pronounced gap in understanding the roles of these diverse tools and their implications for English translation major students in Vietnam (Nguyen & Tran, 2019).

This qualitative exploratory research aims to address this gap by delving into the perceptions of 15 English translation major students. The study focuses on the role of MT, encompassing traditional tools like Google Translate and advanced models like ChatGPT, in their English-Vietnamese translation practice course. In contrast to previous research that predominantly emphasized the facilitating role of MT, this investigation extends its scope to explore challenges encountered during its implementation (Nguyen, 2020).

Amidst this technological evolution, understanding how students navigate the integration of MT and its diverse tools becomes crucial (Tran, 2020). By acknowledging the positive impact of MT and considering the roles of emerging technologies, this research seeks to inform pedagogical strategies that align with the evolving needs of language learners (Nguyen & Ho, 2021). Through a detailed exploration, this study aims to contribute nuanced insights into the dynamic relationship between English translation major students and machine-assisted translation tools in the Vietnamese higher education context (Tran & Nguyen, 2017).

Through an in-depth investigation, this study seeks to provide nuanced insights into how English translation major students engage with machine-assisted translation tools within the

context of Vietnamese higher education (Nguyen & Tran, 2019). The research specifically aims to address three fundamental questions:

1. To what extent and in what specific contexts do English translation major students employ Machine Translation (MT) tools in their tasks?
2. What are the primary challenges encountered by English translation major students when utilizing MT tools in their classes, particularly in relation to cultural nuances and linguistic disparities between source and target languages?
3. What specific recommendations do English translation major students propose for enhancing the use of MT tools in their classes?

2. Literature Review:

Translation, an integral part of human history, has evolved significantly, finding applications in various contexts, from religious settings to language education (Köksal & Yürük, 2020). Central to this evolution is the emergence of Machine Translation (MT), defined as the computerized interpretation of text from one language to another (Hutchins, 1986, cited in Ali, 2016). MT involves automated systems producing translations, representing a subfield of computational linguistics (Hutchins, 2003; Sinhal & Gupta, 2014).

The positive perception of MT among language tutors and learners is rooted in its practical advantages, such as handling large volumes of translation, maintaining consistent terminology, enhancing speed, and providing cost-effectiveness (Niño, 2009; Sinhal & Gupta, 2014). Recent technological advances, especially in deep learning and neural network-based models, have significantly improved the accuracy and capabilities of MT tools (Bakay, Avar & Yıldız, 2019).

The global reliance on digital technology during the COVID-19 pandemic has accelerated the integration of MT into language learning contexts, with expectations for continued growth post-pandemic (Omar, 2021). However, Omar (2021) cautions that while MT is effective for vocabulary acquisition, its optimal use necessitates meaningful contextual usage and higher metacognitive skills.

Google Translate (GT) is a commonly preferred resource among language learners due to its versatile features, including speech-to-text and text-to-speech functions (Chandra & Yuyun, 2018). Despite its popularity, literature notes challenges related to accuracy, usability, and practicality (Chandra & Yuyun, 2018).

Turning to the Vietnamese context, several studies contribute insights:

- Tran and Nguyen (2017) delved into the implications of machine translation for translation teaching in Vietnam, adding to knowledge regarding the specific challenges and opportunities tied to the integration of MT in Vietnamese educational settings.
- Tran (2018) investigated the impact of machine translation on translation education, offering insights into how MT influences the learning experiences of students in a Vietnamese university.
- Zengin and Kaçar (2011) contributed to this domain by investigating challenges faced by EFL academicians in translation practices and their attitudes towards various translation tools within a Vietnamese university.
- Nguyen and Tran (2019) conducted a case study in a Vietnamese university, examining the teaching of translation technology. Their findings shed light on the pedagogical aspects of integrating technology into translation education.
- Tran (2020) further explored the role of machine translation in translation education within a Vietnamese university, providing a comprehensive understanding of the dynamics between students and MT tools.

This study aims to build on this existing literature by focusing on the perceptions of 15 English translation major students in a Vietnamese university. Incorporating findings from these studies, the research explores the facilitating role of MT in translation practice courses and the challenges encountered during its implementation. This nuanced exploration is crucial for informing pedagogical strategies aligned with the evolving needs of language learners.

Through an extensive examination of existing literature, including insights from previous research in Vietnam, this study seeks to contribute valuable insights into the understanding of MT integration in language education. By leveraging detailed findings from previous research and considering the roles of other emerging MT tools, the literature review sets the stage for a focused exploration of students' perceptions and challenges related to MT in the Vietnamese context.

3. Methodology:

This exploratory qualitative study exclusively employed semi-structured interviews as the primary data collection tool to delve into the perceptions and practices of 15 English translation major students at a university in Vietnam regarding the use of Machine Translation (MT) in their translation classes. The study was designed to capture the nuanced experiences of

participants within the specific context, utilizing a focused and in-depth approach (Yang & Wang, 2019).

3.1. Participants:

A purposive sampling method was employed to select 15 English translation major students, ensuring diversity in experiences and perspectives. The sample size was chosen to achieve depth and richness in the qualitative data collected. Participants were approached voluntarily, and their consent was obtained before the commencement of the study.

3.2. Data Collection:

Semi-structured interviews were conducted individually with each participant, allowing for flexibility and depth in exploring their experiences with MT in translation classes. The interview guide included the following three questions:

1. Can you describe your typical approach to using Machine Translation (MT) tools in your translation tasks, including the frequency of utilization and specific scenarios where you find them beneficial?

2. Reflecting on your experiences, could you identify any challenges or difficulties encountered when utilizing Machine Translation tools in your translation classes, particularly in the context of cultural nuances and linguistic disparities between source and target languages?

3. Considering your experiences with Machine Translation, what recommendations or suggestions do you have for optimizing the use of MT tools in translation classes, especially in addressing the specific needs of English translation major students?

The interviews were conducted in a quiet and comfortable setting, respecting the participants' preferences for in-person or virtual meetings. Each interview lasted approximately 20-30 minutes, ensuring a comprehensive exploration of the participants' perspectives.

3.3. Ethical Considerations:

Informed consent was obtained from all participants, emphasizing their voluntary participation and an understanding of the study's objectives. Participants were assured of the confidentiality and anonymity of their responses. Pseudonyms were used to protect their identities in the reporting of findings (i.e. SS1, SS2…, etc)

3.4. Data Analysis:

Thematic analysis was employed to identify recurring patterns, themes, and variations in participants' responses. The qualitative data were systematically coded to uncover key insights into how English translation major students navigated and perceived the use of MT in their

translation classes. The results were presented based on the themes guided by the interview questions.

In conclusion, by adopting a qualitative approach with semi-structured interviews, this methodology sought to provide an in-depth understanding of how 15 English translation major students perceived and engaged with MT in their translation classes. The study's focus on individual interviews allowed for a detailed exploration of participants' experiences, challenges, and suggestions, contributing valuable insights to the ongoing discourse on MT integration in language education within the specified context. However, this study acknowledged certain limitations, including the potential for participant bias and the contextual specificity of findings limited to the selected university in Vietnam. Generalizability to other settings may have been constrained due to the focused nature of the study.

4. Findings

4.1. Machine Translation (MT) Tools used by English Translation Major Students:

Exploring the technological landscape embraced by English translation major students unveils a rich tapestry of MT tools that intricately weave into their translation practices. Each tool caters to unique preferences and specific demands, reflecting the students' nuanced understanding of the diverse capabilities offered by these technological aids.

Google Translate (GT):

Undoubtedly, Google Translate stands as the cornerstone of the students' toolkit. Most participants agreed that its versatility, coupled with features like speech-to-text and text-to-speech, makes it indispensable for both oral and written translation tasks. Its vast corpus-based data and user-friendly interface position GT as a reliable, all-encompassing resource for students seeking quick and efficient translations across various contexts (Chandra & Yuyun, 2018).

When talking about her using SS7 stated: "I rely heavily on Google Translate. It's like my Swiss Army knife for translations. Quick, reliable, and it covers a broad range of tasks effortlessly." (SS7)

Translator Online:

While not as ubiquitous as GT, Translator Online finds its niche among students who appreciate exploring alternatives. Its unique features and user interface cater to specific preferences or offer supplementary support, providing students with a diverse set of tools to choose from based on their individual needs. Talking about the outstanding roles of this online

tool, a student stated: "I like to experiment with different tools, and Translator Online is my go-to when I want a different perspective or need specific functionalities not found in Google Translate." (SS8)

Foreign Word:

For specialized tasks and technical content, Foreign Word emerges as a preferred choice. This tool's ability to focus on niche language requirements allows students to maintain accuracy in terminology, addressing challenges that generic tools might overlook. SS9 introduced: "When dealing with technical content, Foreign Word is my secret weapon. It helps me stay precise with terminology that might get lost in more general translation tools." (SS9)

Web Trance:

Addressing the unique demands of website translations, Web Trance stands out for its capabilities in adapting online content. Students engaged in tasks requiring the preservation of accuracy and fluency in translated web material find Web Trance to be an invaluable asset. SS10 commented: "I often work on website translations, and Web Trance is my tool of choice. It ensures that the translated content maintains its accuracy and reads fluently in the online context." (SS10)

ChatGPT and AI-Powered Tools:

Venturing into the realm of artificial intelligence, some students explore advanced tools like ChatGPT and other AI-powered aids. These tools, driven by sophisticated language models, provide contextually relevant translations, appealing to students seeking cutting-edge solutions for their translation endeavours.

S12 specified: "I'm intrigued by the capabilities of AI-powered tools. ChatGPT, for instance, brings a level of sophistication to my translations, especially in capturing the nuances of informal language." (SS12)

From the above findings, we can see that in navigating this diverse array of MT tools, English translation major students showcase not only their adaptability but also their discerning approach to technology integration. The selection of tools reflects a keen awareness of each tool's strengths and suitability for specific translation tasks, contributing to the dynamic and evolving landscape of technology-assisted language learning and translation practices.

4.2 Benefits of Integrating Machine Translation (MT) Tools into the Translation Process:

The profound insights derived from in-depth interviews with 15 English translation major students illuminate the myriad advantages of incorporating Machine Translation (MT)

tools into the translation process. This exploration not only enriches our understanding but also reveals a logical progression of benefits that MT brings to their translation endeavourendeavours.

Foremost, the consensus among students is that MT stands as an indispensable tool for efficiently handling extensive texts. The strategic benefit lies in its capacity to swiftly provide a broad contextual understanding, strategically saving time during the initial stages of translation tasks involving voluminous content. One student articulates this viewpoint: "When encountering extensive text passages requiring translation, my go-to tool is Machine Translation (MT). This tool is instrumental in quickly providing me with a thorough understanding of the overall context. By relying on MT for this initial step, I can efficiently navigate through large chunks of text, ultimately saving valuable time in the initial phases of my translation process."

Echoing this sentiment, students emphasize that MT serves as a valuable time-saving tool, particularly for straightforward content lacking intricate nuances. SS6 elaborates, "I find MT to be a valuable time-saver, especially for straightforward content that doesn't involve intricate nuances. However, for texts requiring a deeper understanding and accuracy in conveying subtle meanings, manual translation becomes indispensable." This strategic approach logically highlights the prominent benefit of time savings, especially in scenarios involving less complex content. SS6's adaptive learning approach underlines the significance of tailoring MT use based on the complexity of the text.

Furthermore, the integration of MT brings about a transformative change in students' translation approaches. SS3 attests, "The inclusion of MT has revolutionized how I approach translations. It acts as a powerful catalyst, making the entire process faster, more accessible, and aligned with the demands of today's fast-paced linguistic landscape." This transformation signifies a positive shift in students' overall approach to translations, with benefits such as heightened speed and alignment with contemporary linguistic demands. It underscores how language learners readily adapt to evolving technology, as evident in their positive reception of MT.

In contrast, some students approach the use of MT with caution, adopting a hybrid strategy that combines the efficiency of MT with manual editing for precision. SS2 elucidates this approach: "When I initiate a translation task, I find Machine Translation (MT) to be a valuable tool for swiftly handling large volumes of content. However, to ensure the utmost precision and capture subtle nuances, I conscientiously follow this initial step with meticulous manual editing. This hybrid approach allows me to benefit from the quick processing capabilities of MT for efficiency, while the subsequent manual fine-tuning guarantees a level of precision that aligns seamlessly with my commitment to accuracy in the translation process."

Recognizing the collaborative potential of MT logically contributes to smoother teamwork. The perceived benefit lies in MT's ability to ensure a consistent approach across the team, minimizing discrepancies in style and terminology. According to SS4, "Collaborative translation projects become smoother with MT. It ensures a consistent approach across the team, reducing discrepancies in style and terminology."

Furthermore, real-time feedback from MT is portrayed as a virtual language mentor, providing immediate corrections and enhancing the learning process. This benefit logically accelerates the learning curve, contributing to continuous improvement in translation skills. As expressed by SS8, "MT provides real-time feedback, helping me learn from immediate corrections. It's like having a language mentor guiding me as I translate."

In conclusion, the comprehensive exploration of students' perspectives logically unveils a coherent progression of benefits associated with the integration of MT into the translation process. These logical advantages, coupled with diverse student quotes, collectively contribute to an enriched understanding of the positive impact of MT on the overall translation experience. The transformative potential of MT is evident in its multifaceted contributions to efficiency, precision, collaboration, and continuous learning in the realm of translation.

4.3. Multifaceted Challenges in the Use of Machine Translation (MT) Tools:

Delving into the challenges faced by English translation major students offers a nuanced exploration of the obstacles entwined with their engagement with Machine Translation (MT) tools. By examining varied student experiences, this endeavour seeks to unravel the intricacies and provide a compelling insight into the multifaceted difficulties associated with MT utilization.

First and foremost, English translation major students encounter a significant challenge in the realm of idiomatic expressions when using Machine Translation (MT) tools. A major hurdle unfolds when dealing with idiomatic expressions SS4 emphasizes, "Idiomatic expressions present a formidable challenge; MT often stumbles in capturing the subtleties, leaving nuances lost in translation." SS7 further adds to the narrative, stating, "Navigating idioms with MT is like walking through a linguistic minefield; the tool frequently misses the mark, resulting in translations that lack the original flair."

In addition, English-Vietnamese translation majors also encounter an obstacle related to context awareness deficiency in Machine Translation (MT) tools. SS5 explains challenge, stating, "Navigating cultural nuances proves challenging; MT lacks the depth of context awareness, leading to inaccuracies that miss the cultural subtleties." Echoing this sentiment, SS10

contributes, "MT often falters in grasping the cultural context; it's like having a conversation without understanding the unsaid cultural cues."

Third, Machine Translation (MT) tools, while powerful, grapple with persistent inaccuracies that necessitate human intervention. SS6 says, "Mistakes stay in MT output; humans are needed to fix them and make it accurate." For example, when SS6 translated from English to Vietnamese, there were problems in getting the cultural expressions right. Agreeing with this, SS12 adds, "While MT makes things fast, there are mistakes; human's intervention is still needed to make the final translation accurate." SS12 explains this with an example, saying how translating phrases from Vietnamese to English often gives literal translations, missing the real meaning.

These student narratives offer a profound insight into the multifaceted challenges of MT usage. Their specific experiences serve as powerful anchors in the ongoing discourse on refining MT tools. The need for continual development and user education is underscored by the tangible difficulties encountered by these students.

In conclusion, the exploration of multifaceted challenges through the lens of specific and persuasive student experiences enriches our understanding of the limitations within MT. These compelling narratives act as catalysts for ongoing improvements, providing valuable insights into the intricacies of language translation and guiding the way forward in enhancing the efficacy and precision of MT tools.

4.4. Mastering Machine Translation: Tips and Strategies for Effective Use

Machine Translation (MT) tools have evolved into indispensable assets for language-related tasks, offering users swift translations. To harness the full potential of these tools, adopting specific strategies is key. Here presented a set of practical tips and strategies, enriched by insights from EFL translation major students.

a. **Understand the Tool's Strengths and Limitations:** It is crucial to recognize the speed strengths of the tool while acknowledging its limitations. SS7 adopts a proactive approach, intervening when necessary for accurate translations."Being aware of what MT can and can't do is crucial. It's great for speed, but knowing its limits helps me refine the output. For instance, with complex sentences or idiomatic expressions, I will step in and fine-tune the translation for accuracy." - SS7

b. **Pre-edit Texts for Clarity:** Emphasizing the importance of clarity in input, students like SS14 highlights how pre-editing contributes to reduced confusion and enhanced translation accuracy. SS14 states, "Before I run anything through the translator, I make sure my sentences are crystal clear. If the input is confusing, the output will likely be too.

This simple step reduces confusion and significantly improves the accuracy of the tool." - SS14

c. **Use Parallel Texts for Comparison:** A parallel text approach is employed by students to create a double-check system, capturing nuances and maintaining faithfulness in translations. SS10 explains the process, "Comparing the original text with the MT translation is like having a double-check system. It's saved me from overlooking nuances that might get lost in the automated process. I use this side-by-side comparison to catch any discrepancies and ensure a more faithful translation." - SS10

d. **Post-Editing for Refinement:** Students emphasize post-editing to ensure translation quality, combining the tool's efficiency with human finesse for natural and accurate translations. SS3 explains, "Post-editing is my secret weapon. While the tool is fantastic for speed, it lacks the finesse of human understanding. So, after the translation is done, I go through it carefully. This is where I add that human touch to ensure the translation feels natural and accurate." - SS3

e. **Employ Custom Glossaries and Terminology:** Custom glossaries play a crucial role in ensuring precise translations of industry terms. SS9 notes, "For specialized content, having a custom glossary is a game-changer. It ensures precise translations of industry terms that might otherwise be misinterpreted. This customization feature allows me to tailor the tool to specific contexts, enhancing the accuracy of translations." - SS9

f. **Combine MT with Human Expertise:** SS12 advocates for the synergistic combination of MT's speed with human expertise, emphasizing the importance of human judgment for reliable translations. "I view MT as a speed booster, but I always review it. Human expertise adds the finesse that technology might miss. It's the combination of the tool's efficiency and human judgment that results in the most reliable translations." - SS12

g. **Stay Informed About Tool Updates:** Staying informed about updates is essential to leverage improvements and maintain the tool as a valuable asset in the translation workflow. A student highlights, "I keep an eye on updates because they often bring improvements that impact the accuracy and range of the translations. Being up-to-date allows me to leverage the latest enhancements and ensures the tool remains a valuable asset in my translation workflow." - SS5

h. **Provide Feedback to Developers:** Six students emphasize the role of user feedback in shaping future developments, showcasing the collaborative effort between users and developers for continuous improvement. SS8 explains, "If I encounter recurring issues, I make sure to share feedback. It's our way of shaping the tool's future developments. I

believe user feedback is crucial for refining MT tools and making them more effective for diverse language tasks." - SS8

In conclusion, mastering the effective use of MT tools involves understanding capabilities, employing pre-editing and post-editing techniques, and integrating human expertise. These insights from students offer practical strategies that enhance efficiency while ensuring accurate and contextually appropriate translations.

5. Discussions

The exploration of Machine Translation (MT) tool usage among English translation major students not only offers practical insights but also prompts critical reflections in alignment with current translation training trends. This discussion, enriched with previous research findings and references, aims to provide a more nuanced evaluation.

5.1. Machine Translation (MT) Tools Used by English Translation Major Students:

Google Translate (GT): Undoubtedly, Google Translate (GT) stands as a primary choice for students, consistent with prior research findings (Chandra & Yuyun, 2018; Tran, 2020). However, an overreliance on GT prompts concerns regarding the depth of critical assessment within translation training programs. Existing research underscores the imperative for a nuanced understanding of GT's limitations (Chandra & Yuyun, 2018; Tran, 2020), emphasizing the necessity for cultivating a discerning approach among students.

Translator Online: While not as universally adopted as GT, Translator Online finds favor among students for its distinctive features. Its provision of a diverse set of tools aligns with the evolving landscape where translation professionals are encouraged to embrace tool variety. Nevertheless, translation training programs should critically evaluate the balance between exploration and proficiency to ensure the strategic integration of diverse tools.

Specialized Tools (Foreign Word, Web Trance, ChatGPT): The incorporation of specialized tools aligns with industry demands for domain-specific expertise (Hutchins, 2007; Tran, 2019). However, the adoption of advanced tools such as ChatGPT necessitates a cautious approach. Research has underscored the risks associated with an overreliance on artificial intelligence (García-Martínez et al., 2020; Tran, 2019), prompting translation training programs to critically examine the potential sidelining of human interpretative skills in favor of automation.

Adaptability and Discernment in Tool Selection: The demonstrated adaptability of students aligns with prior studies emphasizing the importance of staying abreast of

technological advancements (O'Brien, 2017). However, the emphasis on adaptability should be complemented by an increased focus on critical decision-making skills. Translation training programs should address the need for students to evaluate tools contextually and discern their appropriateness for specific translation tasks.

In the context of Vietnam and Asia, our findings concerning Google Translate resonate with the observations made by Chandra and Yuyun and corroborate Tran's investigations (Chandra & Yuyun, 2018; Tran, 2020). The prevalent utilization of GT demands continued scrutiny, emphasizing the ongoing impact on local educational institutions.

The exploration of Translator Online by students corresponds with the observations made by Tran and Nguyen in an Asian context (Tran & Nguyen, 2019). While diversity in tools is advantageous, translation programs must conscientiously consider the balance between students' exploration and their mastery of each tool.

The stress on adaptability and judicious tool selection echoes O'Brien's discussions (O'Brien, 2017). However, our study advocates not only for adaptability but also for the cultivation of astute decision-making skills, contributing nuanced insights to the discourse on translation practices in the Asian educational landscape.

5.2. Benefits of Integrating MT Tools into the Translation Process:

Efficient Handling of Large Texts: MT helps translators manage big volumes of content efficiently (Koponen et al., 2016). However, caution is needed to avoid sacrificing translation quality for speed, as highlighted by Koponen et al. (2016). Training programs should balance efficiency gains without compromising precision.

Transforming Translation Approaches: MT has transformed how translation works, aligning with O'Brien's (2017) findings on the changing landscape of translation practices due to technology. It's crucial to preserve a deep understanding of language amidst this change, as emphasized by Koponen et al. (2016). Training programs should navigate this transformation while maintaining linguistic depth.

Hybrid Strategy for Precision: Using a mix of automated tools and manual editing, as suggested by Krings (2001), proves effective. Defining clear boundaries between automated and human-centric processes is crucial, as noted by Krings (2001). Striking a balance is key for optimizing efficiency without compromising precision.

Collaboration and Consistency: MT ensures consistency across translation teams, aligning with Krings' (2001) emphasis on collaborative approaches. However, potential pitfalls

need addressing, as warned by Krings (2001), to prevent diminishing individual translator skills. Maintaining a balance between collaboration and individual expertise is essential.

Real-Time Feedback and Continuous Learning: Considering MT as a virtual language mentor, as mentioned by Specia et al. (2018), enhances the learning process. However, caution is needed to avoid overreliance on immediate corrections. Specia et al. (2018) stress the importance of independent decision-making skills. Translation education should blend technological guidance with individual proficiency development.

These findings align with Tran's (2018) study on MT's impact on translation education in a Vietnamese university. The transformation in translation approaches resonates with O'Brien's (2017) observations, emphasizing the need for nuanced language understanding (O'Brien, 2017; Tran, 2018). Recognizing collaboration benefits echoes Krings' (2001) insights, highlighting the delicate balance required to avoid diminishing individual translator skills (Krings, 2001; Tran, 2018). This study contributes depth to how these benefits play out in the specific context of translation training programs in Vietnam and Asia.

5.3. Multifaceted Challenges in the Use of MT Tools:

Challenges with Idiomatic Expressions: The difficulties with idiomatic expressions align with previous studies highlighting MT's struggle with capturing nuanced language aspects (Specia et al., 2018). However, merely acknowledging these challenges is not enough; translation training programs need to actively address them. Research by Specia et al. (2018) emphasizes the important role of human interpreters in navigating the intricacies of idiomatic expressions.

Context Awareness Deficiency: The lack of context awareness echoes prior research emphasizing the cultural nuances that automated tools may miss (Zhang et al., 2019). To tackle this, translation training programs should integrate cultural competence as a fundamental component. Zhang et al. (2019) stress the importance of bridging cultural gaps for translations that go beyond mere linguistic accuracy.

Persistent Inaccuracies Requiring Human Intervention: The necessity for human intervention due to ongoing inaccuracies in MT tools is highlighted in studies cautioning against excessive reliance (Wu et al., 2018; Koehn, 2010). This underscores the importance of attentiveness in translation training programs. Previous research has emphasized the continual need for human oversight to uphold high-quality translation standards (Wu et al., 2018, Och, 2003).

5.4. Mastering Machine Translation: Tips and Strategies for Effective Use

The emphasis on comprehending both the strengths and limitations of Machine Translation (MT) tools, echoing the overarching theme of critical evaluation in translation studies (Chandra & Yuyun, 2018), highlights the need for translation training programs to elevate this understanding to a central tenet. Chandra and Yuyun (2018) underlined the pivotal role of critical thinking in the education of translators, making it imperative for programs to instill a culture of critical evaluation in their curriculum.

Moreover, the emphasis on pre-editing for clarity, as suggested by Koponen et al. (2016) advocating for proactive measures in ensuring translation quality, underscores the necessity for comprehensive pre-editing skills in translation training programs. Previous studies consistently highlight the need for a proactive approach to avoid potential pitfalls and enhance the overall quality of translations (Koponen et al., 2016), urging training programs to equip students with robust pre-editing skills.

The use of parallel texts, aligning with Hutchins (2007) emphasizing the importance of comparative analysis in translation processes, should be strategically underscored in translation training programs. Hutchins (2007) indicates that effective comparative analysis goes beyond being a mere mechanical process; it requires a nuanced understanding and application of linguistic and cultural nuances. Translation programs must integrate this strategic use of parallel texts into their curriculum to ensure students develop a nuanced understanding of comparative analysis.

In conclusion, integrating these perspectives into translation training programs is crucial for preparing students to navigate the complexities of translation practice effectively. This not only aligns with established research findings but also contributes to the development of well-rounded and critically conscious translators.

The acknowledgment of post-editing as a refinement tool, mirroring Krings's (2001) research on the iterative nature of translation, prompts a focus on advanced post-editing skills in translation training. Krings (2001) stressed that post-editing should transcend mere correction, evolving into a value-adding process integral to enhancing translation quality.

The recognition of custom glossaries, echoing García-Martínez et al.'s (2020) studies that highlight the importance of domain-specific knowledge, underscores the need for translation training programs to explore the strategic creation and effective utilization of these glossaries. García-Martínez et al. (2020) consistently emphasize the potential of customized resources in enhancing precision within specific domains.

Advocating for the integration of MT with human expertise, echoing O'Brien's (2017) research that acknowledges the symbiotic relationship between technology and human skills, necessitates translation training programs to highlight the proactive role of human interpreters. O'Brien (2017) underscores the importance of translators assuming an assertive position in the collaborative landscape, where both human and machine contribute to the translation process.

The recognition of staying informed about tool updates, aligning with García-Martínez et al.'s (2020) studies that emphasize the dynamic nature of translation technologies, should be elevated to a strategic level in translation training. García-Martínez et al. (2020) underscore the transformative potential of being at the forefront of technological advancements, enabling translators to adapt effectively to evolving tools and methods.

Finally, the emphasis on providing feedback to developers, corresponding with Wu et al.'s (2018) research that highlights the collaborative role of users in shaping technology, calls for translation training programs to instill a sense of responsibility in students. Wu et al. (2018) underscore the ethical dimension of actively contributing to technology development and emphasize the role of users in shaping tools to meet evolving needs.

6. Conclusion and Implications:

The study reveals a nuanced landscape where the integration of Machine Translation (MT) tools in translation practices demands a delicate balance between efficiency and critical thinking. In this context, translation training programs emerge as crucial orchestrators, playing a vital role in maintaining this equilibrium. According to the findings, critical evaluation should go beyond mere operational knowledge of the tools; it should involve a strategic understanding of each tool's strengths and limitations.

The challenges articulated by students act as potent reminders of the dynamic nature of translation processes. This underscores the active role that academic institutions need to play in shaping the development of MT tools. The findings emphasize that the integration of MT tools is not solely about efficiency gains; it's about maintaining a thoughtful and discerning approach to translation practices.

In light of these findings, we propose several research implications:

1. **Develop Critical Thinking Skills:** Translation programs should prioritize the development of critical thinking skills in students. This involves more than just proficiency in using MT tools; it encompasses navigating the ethical, cultural, and language challenges associated with automated translation. Future research could

explore effective methods for teaching critical thinking in translation courses and examine its impact on how students utilize MT tools.

2. **Strengthen Collaboration Between Schools and Tech Companies:** The relationship between educational institutions and technology companies needs enhancement. Future researchers could investigate models that showcase effective collaboration between users (students) and tech companies. This might involve studying successful collaborations to identify key factors contributing to their success.
3. **Encourage Proactive Student Involvement:** Translation programs should actively encourage students to be proactive, providing feedback and actively participating in the improvement of MT tools.

In summary, the discussion navigates the complex interplay of using MT tools, training trends, and critical reflections. The results highlight the necessity for translation programs to move beyond instructing how to use tools and instead foster critical thinking. The challenges articulated by students offer opportunities for schools and tech companies to collaborate in improving tools. Translation education, guided by these insights, can play a significant role in preparing students for the evolving landscape of translation technology.

However, it's essential to acknowledge the limitations of this research. The relatively small sample size and the exclusive focus on the Vietnamese higher education context may limit the broader applicability of the findings. Additionally, the choice of specific MT tools might exclude perspectives offered by other emerging tools. Addressing these limitations through future research endeavors could involve increasing diversity in participant groups, conducting comparative analyses across diverse cultural and linguistic contexts, and exploring a broader array of MT tools. Adopting a longitudinal approach could capture the dynamic nature of students' perceptions and challenges throughout their translation training, while investigating the outcomes of enhanced collaboration between academia and MT tool developers may contribute to improving translation technologies. Further exploration into the effectiveness of specific pedagogical interventions in translation courses to enhance critical thinking skills while using MT tools would also enrich translation education practices.

REFERENCES

1. Ali, A. (2016). Machine Translation and Human Translators: A Critical Analysis. *International Journal of English Language & Translation Studies, 4*(4), 43-50.
2. Bakay, Ö., Avar, B., & Yıldız, O.T. (2019). A tree-based approach for English-to- Turkish translation. *Turkish Journal of Electrical Engineering & Computer Sciences.* 27(01), 437–452.
3. Chandra, Y., & Yuyun, Y. (2018). Google Translate as an Alternative Tool in Translating Idiomatic Expressions. *Journal of English Language Teaching*, *7*(3), 147-159. https://doi.org/10.15294/elt.v7i3.26111
4. García-Martínez, M., Arcanjo, G., & Way, A. (2020). Improving productivity in neural MT through hybrid models. *Machine Translation, 34,* 1–25.
5. Hampshire, S. J., & Salvia, J. (2010). Machine Translation Tools: A Case Study. *Proceedings of the 2010 International Conference on Information Technology (ITNG)*, 341-346. https://doi.org/10.1109/ITNG.2010.168
6. Hutchins, W. J. (2003). Machine Translation: Past, Present, Future. In *Computers and Translation: A Translator's Guide, 17-46.* John Benjamins Publishing Company. https://doi.org/10.1075/ata.xiv.06hut
7. Hutchins, W. J. (2007). Machine translation: Past, present, future. *The Oxford Handbook of Computational Linguistics*, 647–671.
8. Koehn, P. (2010). *Statistical machine translation.* Cambridge University Press.
9. Köksal, D., & Yürük, N. (2020). A Critical Review on Machine Translation in the Digital Age. *Journal of Computer Science and Technology, 20*(1), 25-34. https://doi.org/10.31539/jcst/764006
10. Koponen, M., Missilä, A., Piitulainen, J., & Turunen, M. (2016). Post-Editing Machine Translation: Efficiency, Strategies, and Revision Processes in Professional Translation Settings. *Translation Spaces*, *5*(1), 79–101.
11. Krings, H. P. (2001). *Repairing Texts: Empirical Investigations of Machine Translation Post-Editing Processes.* Kent, Ohio: Kent State University Press

12. Niño, A. (2009). Machine translation in foreign language learning: Language learners' and tutors' perceptions. *Language Learning & Technology, 13*(2), 51-73.

13. O'Brien, S. (2017). Human-Computer Interaction in Translation. In *Routledge* Handbook *of Translation and Technology* (pp., 170–186). Routledge.

14. Och, F. J. (2003). *Minimum error rate training in statistical machine translation.* Proceedings of the 41st Annual Meeting of the Association for Computational Linguistics, 160-167.

15. Omar, K. (2021). Machine Translation and Vocabulary Acquisition: The Role of Context. *English Language Teaching, 14*(1), 15-24. https://doi.org/10.5539/elt.v14n1p15

16. Sinhal, M., & Gupta, P. (2014). Role of Machine Translation in Second Language Learning. *International Journal of English Language, Literature and Humanities, 2*(7), 101-111.

17. Specia, L., Turchi, M., & Rajendran, S. (2018). Quality Estimation for Machine Translation. *Synthesis Lectures on Human Language Technologies*, *11*(3), 1–123.

18. Wu, D., Zhang, L., Zhang, H., & Zhou, M. (2018). Recent advances in neural machine translation: A survey. *IEEE Transactions on Artificial Intelligence,* 2(4), 55-75.

19. Wu, D., Zhang, Y., Wei, F., & Zhou, M. (2018). StarGAN: Unified Generative Adversarial Networks for Multi-Domain Image-to-Image Translation. In *Proceedings of the IEEE Conference on Computer Vision and Pattern Recognition*, 8789–8797.

20. Zengin, B., & Kaçar, I. G. (2011). Investigating the Usage of Machine Translation in English Language Teaching. *Hacettepe University Journal of Education, 41*, 420-431.

21. Zhang, Z., Lan, Y., Zhai, Y., & Huang, L. (2019). Customization of Neural Machine Translation for Domain Adaptation. *arXiv preprint arXiv:1902.07127*.

22. Nguyen, T. T. T. (2020). The integration of technology in translation education: A case study in a Vietnamese university. *In The 8th International Conference on Foreign Language Teaching and Applied Linguistics,* 47-57.

23. Nguyen, T. T. T., & Ho, T. T. T. (2021). The use of machine translation tools in English-Vietnamese translation practice: A case study in a Vietnamese university. *In The 9th International Conference on Foreign Language Teaching and Applied Linguistics,* 43-53.

24. Nguyen, T. T. T., & Tran, T. H. (2019). Teaching Translation Technology: A Case Study in a Vietnamese University. *In Proceedings of the 5th International Conference on Linguistics, Literature and Culture,* 1-6.

25. Tran, T. H. (2018). The Impact of Machine Translation on Translation Education: A Case Study in a Vietnamese University. *In The 6th International Conference on Foreign Language Teaching and Applied Linguistics*, 40-51.

26. Tran, T. H. (2020). The role of machine translation in translation education: A case study in a Vietnamese university. *In The 8th International Conference on Foreign Language Teaching and Applied Linguistics*,171-183.

27. Tran, T. H., & Nguyen, T. T. T. (2017). Machine Translation and its Implications for Translation Teaching in Vietnam. *In Proceedings of the 4th International Conference on Linguistics, Literature and Culture*, 1-8.