The Role of University Writing Centers in AI-translated Academic Writing – The case of international graduate students in Japan

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Despite the recent interest in AI language pedagogy in the Computer-Assisted Language Learning scene, most research studies have focused on the usefulness (and potential academic integrity concerns) of AI-generated texts. Very little research has been done in relation to how AI translation tools may help second language learners of English. This study explores whether and to what extent International Graduate Students at a Japanese university are utilizing AI translation during their English research writing process. I choose this group of students due to their unique learning needs given the context: they are writing English research articles in a predominantly English as a Foreign Language (EFL) environment, and will have to translate between English and Japanese, which are often both non-native languages to them. Through semi-structured interviews, I have shown that all participants made use of AI translation tools during their research writing process, and their patterns of usage varied depending on factors such as language background, academic program, and personal goals. The study also offers some tentative suggestions similar writing centers may consider in order to achieve more comprehensive services for both International Graduate Students and research writing for publication purposes.

1. Introduction

Scholars who are non-native speakers of English face a common dilemma when it comes to getting their voices heard and exchanging ideas in the academic world. On the one hand, publishing in English international journals is often associated with more prestige and exposure (Bennett 2013), but requires a high command of academic English. One might have to think and draft in their native language, and attempt translating their ideas into English at a later stage. On the other hand, writing academically in the researcher's L1 may alleviate the stress associated with language, while introducing a "reverse translation" task – some English terms in the field, especially newly-coined ones, have to be translated into the native language of the researchers. Writing and translation are inseparable for researchers using L2 English.

Several studies have investigated the use of Machine Translation (MT) and the extent it can assist English academic writing in a second/foreign language context (Groves and Mundt 2015; Escartín et al. 2017; Ducar and Schocket 2018, among others). The general consensus is that although Machine Translation systems such as Google Translate may aid ESL/EFL writers (both students and academics) to a certain extent, professional translating and proofreading assistance is still necessary while teachers and administrators need to mind potential academic integrity (i.e. plagiarism) issues with regard to MT.

Since the public launch of ChatGPT in late 2022, there has been more interest than ever in English pedagogical research using generative AI and/or Large Language Models (LLMs). Virtually all journals related to academic writing education and assessment have either witnessed a surge in research articles focusing on AI and L2 writing education, or allocated

special issues and sections on these topics¹. In this context, the majority of the literature is concerned with AI-generated texts and their implications for both education and academic integrity. Far less attention has been directed towards *translations* done by generative AI models and ways to incorporate these more powerful translation tools into academic writing education (see also §2.1).

This paper aims to fill this gap as I explore the usefulness of AI translation services to aid English academic writing, from the perspective of International Graduate Students (IGS) in Japan. IGS comprise a unique student population in Japanese universities, who conduct their research and publish mainly in English yet receive rather limited support for their research writing needs (§2.2). By presenting the qualitative data from four interviews with international doctoral students at Hiroshima University, I also intend to share some reflection on how English educators and university writing centers may facilitate the writing and translation process against the backdrop of AI and L2 learning.

The paper is structured as follows: §2 summarizes two strands of research pertinent to the current study – firstly, the increasing scholarship concerning generative AI and English as a Second/Foreign Language (ESL/EFL) teaching through the use of Machine Translation (MT) tools. The context of the study, a writing center in a highly internationalized Japanese university, will also be introduced in this section. The methods are discussed in §3, followed by the results in §4. I discuss some remaining issues and future directions in the concluding section §5.

2. Background

2.1 Recent scholarship on AI, Machine Translation and Computer-Assisted Language Learning

Worries about how technological advances may negatively impact language learning have coexisted with innovative teaching methods incorporating various technological tools even before generative AI / LLMs gained public attention. Machine Translation (MT) has been demonstrated to be effective in aiding beginner writers (Garcia and Pena 2011), genre-specific academic writing (Escartín et al. 2017), and revising and postediting (Lee 2020; see references cited therein) in second language classrooms. Nevertheless, there have also been studies that are skeptical towards the extent MT can really help second language writers. Costa-jussà, Farrús, and Pons (2012) have found that the accuracy of MT in medical writing varies greatly depending on the source/target languages. Groves and Mundt (2015) argue that while tools such as Google Translate may help L2 writers at a lexico-grammatical level, they are lacking when it comes to improving writing at a more holistic scale (e.g., discourse appropriateness, context, argumentative structure). In some teaching contexts, texts from MT are even treated as "a bad model" for students to correct and learn from (cf. Niño 2009). To this extent, early MT tools are viewed as a learning support with limited capability, only useful in class when certain conditions are met.

The emergence of publicly-available generative AI models such as ChatGPT has drastically changed the landscape of the Computer-Assisted Language Learning field. As it becomes trivially easy for L2 writers to prompt and produce acceptable English texts with the help of generative AI, the focus of related research has been shifted to identifying and preventing

¹ One example being the "disciplinary dialogues" published in the December 2023 issue of *Journal of Second Language Writing*.

potential negative outcomes of AI in education (Cotton, Cotton, and Shipway 2023; Dakakni and Safa 2023; Eke 2023, among others). Most of these studies take a rather critical stance against the use of ChatGPT in education, evident just by reading their titles: "Chatting and Cheating", "A 21st Century Pandora's Box", "Threat to Academic Integrity", and so on.

In the midst of the somewhat pessimistic atmosphere in the field, one study is of note. Warschauer et al. (2023) summarize the affordance issues in L2 writing as three contradictions: the "imitation" contradiction, the "rich get richer" contradiction and the "with or without" contradiction. Firstly, the introduction of AI has put text imitation, traditionally considered as a somewhat effective way of learning L2 writing, under harsher scrutiny for academic integrity violations. As a matter of fact, Liang et al. (2023) show that the so-called "GPT-detectors" are biased against L2 writers, falsely identifying L2 writings as AI-generated and plagiarism. The "rich get richer" contradiction concerns with the widening gap in relation to digital literacy – people who were equipped with technological expertise will also excel at using AI to aid their writing, furthering the "language divide" from those who rely on traditional learning methods. Lastly, the "with or without" contradiction refers to the inequality in L2 proficiency among all learners. A generative AI can be queried to provide useful ideas and knowledge about writing, but only if the learner knows how to ask (preferably in English) to begin with.

It is apparent that recent scholarship concerning Computer-Assisted Language Learning is sharply delimited by the moment when students and teachers noticed the existence of ChatGPT. As the majority of studies focus on the level of generation Large Language Models are capable of (and what it entails for language education), there is yet one area that receives surprisingly low attention – LLMs and their contribution to Machine Translation. Thanks to the recent development in Natural Language Processing, ESL/EFL students now have access to a range of tools for their translation needs: for instance, DeepL, Google Translate and chatbots (ChatGPT, Bing, etc.). Despite the equally increasing accessibility and accuracy of AI translation, very few studies have revisited the topic of using translation tools to teach L2 writing. Below I report two recent studies in the Japanese EFL context that I am aware of.

In Birdsell (2022), the author explores the extent DeepL helps Japanese L1 students in their English writing, and how easily it is for language teachers to identify essays written with DeepL. The results show that five English instructors, following a predetermined evaluation rubric, consistently rated DeepL-translated English writings higher than essays written without the help of Machine Translation. In addition, essays produced by DeepL were identified with high certainty by the raters, who often commented on the "uncommon word choices or grammar for Japanese university students" (Birdsell 2022, 120). In other words, language teachers were relying on frequent lexical and grammatical issues Japanese students faced when determining whether a piece of writing was AI-translated, and would conclude it was "too good" in absence of these errors. Notably, the participants in this study were first-year undergraduate students enrolled in advanced English classes, who learned English as part of their program requirements, and did not necessarily have a specific academic goal (e.g., to write and publish in English).

Sasaki, Mizumoto, and Matsuda (in prep.) investigate the effect of AI translation in a slightly different vein, namely translation as corrective feedback to English writing. Instead of using AI-translated text directly for evaluation, they compared how second-year Japanese students improved their English writing assignments after receiving two types of feedback: traditional corrective feedback from their instructors, or English text translated by DeepL as feedback. Interestingly, their data show that while students receiving either type of feedback

improved significantly in their revision, there was no significant difference between the effect sizes of instructor corrective feedback and AI translation feedback – DeepL translation was in the least equally helpful as a learning tool for the students. To that effect, posttest questionnaires also demonstrate that DeepL translation did not only help the students with the writing task at hand, but also introduced expressions they were unaware of and prepared to use in the future. Although students may respond more positively to the interactive nature of teacher feedback, this study indicates that AI translation should at least be considered as an effective alternative when teaching resources are limited.

Both of the above studies have approached English academic writing as a part of the university curriculum. Most of the English courses offered in Japanese universities fall under the umbrella term "English for Academic Purposes" (EAP) and primarily target Japanese undergraduate students. The learning goal is usually overall English competence or test preparation. On the other hand, English writing for research publication can be considered as "English for Specific Purposes" (ESP) and concerns with rather different skillsets and requirements. As a result of the recent internationalization efforts of many high-ranking universities in Japan (cf. Top Global University Project; MEXT 2014), English research writing education now serves a student population that differs significantly from undergraduate-level EAP courses. The next subsection provides an overview of the main target audience of research writing education – International Graduate Students, and the local context at the Hiroshima University Writing Center.

2.2. International Graduate Students at Hiroshima University and the Writing Center

At this point, the readers might wonder why this study has targeted international students at a Japanese university, a seemingly small population given the context². Counter to the perception, international students have already become a sizeable group by proportion in Japan, thanks to the internationalization initiatives some Japanese universities now focus on. Their contribution to the English research output of a university is even more salient, since the overwhelming majority of international students are enrolled at the graduate level. Below in Figure 1 I show the proportion of International Graduate Students (IGS) over the past five years at Hiroshima University, a "Type A" Top Global University³.

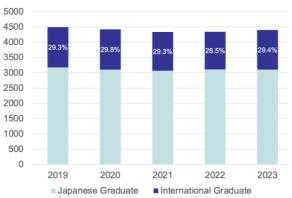


Figure 1. Japanese and International Graduate Students population at Hiroshima University. Data from 2023 Hiroshima University Factbook (https://sites.google.com/view/hiroshima-u-factbook)

² See Rakhshandehroo (2018, 1831) for a report on recent changes in international students distribution in Japanese Higher Education.

³ For an introduction of the "Top Global Universities" project, see MEXT (2014).

Among the nearly 4500 enrolled graduate students at Hiroshima University, almost one-third are IGS. This proportion has remained largely unchanged over the past five years, despite the disruption caused by the COVID-19 pandemic. Most of these students belong to academic programs fully taught in English, often with English academic publications as one of their graduating requirements. Moreover, the overwhelming majority of IGS come from other Asian countries where English is not a first language⁴. These two observations entail that many International Graduate Students, in addition to facing Japanese language barriers in and out of the university, will also receive education and conduct research in English as a foreign/second language.

Although recent studies such as Rakhshandehroo (2018) and Rakhshandehroo and Ivanova (2020) have addressed the challenges IGS enrolled at English-medium programs often face, the "linguistic limitations" the authors focus on mainly concern with obstacles due to low Japanese proficiency. The type of academic support Rakhshandehroo and colleagues suggest Japanese institutions focus on, is also mostly administrative and Japanese-centered in nature (e.g., bilingual university paperwork, academic supervisors acting as "translators" during lab meetings and seminars). On the academic/research end, the IGS in these studies are reported to discuss their research and degree process (in English) only with their supervisors. There is an apparent inadequacy in *research support in English* offered to IGS, especially when considering that some professors in English-medium programs also have limited English proficiency (Rakhshandehroo and Ivanova 2020, 49, 52). Moreover, faculty members may have discipline-specific expertise, but are in no capacity English education professionals.

Under this context, the Hiroshima University Writing Center was established precisely to address the dire need for research writing support for both students and faculty. Founded in late 2013, the HU Writing Center quickly expanded its services to include both Japanese and English academic writing following the 2012 Action Plan to "[support] research, particularly in terms of publications in English" (Araki and Miyokawa 2021, 6). As part of the internationalization and research support effort, the Writing Center created the Writing Advisor Fellow Program in 2016, which hires employees who are mostly recent PhD graduates from international institutions. Working alongside Japanese- and English-speaking graduate student tutors, the Writing Advisor Fellows primarily provide consultations on English research writing (journal articles, conference proceedings, abstracts, among others) and also organize seminars/workshops focusing on English writing and presentation skills. The goal for the writing consultations is specifically set to be research dissemination in English, be it publications or international presentations. This distinguishes the fellowship position from traditional writing center tutors, who may also provide feedback on a variety of texts including class projects and writing assignments.

In addition, as the fellows use English during the consultations, their clients are predominantly IGS enrolled in English-medium programs, who may be drafting a journal article or part of their dissertations in English. In effect, while the Writing Advisor Fellows are almost exclusively visited by International Graduate Students and faculty⁵, they have also become one of very few people IGS can discuss their research with other than their advisors – a "mini-advisor" to some extent. As such, the HU Writing Center, a hybrid education and

⁴ Some top-ranked countries by population are: China, Indonesia, Vietnam, Bangladesh and Cambodia.

⁵ Among the 159 English consultation appointments in 2023, 144 were made by IGS and international faculty members. The rest of the visitors were primarily Japanese faculty members.

research support unit, stands in a unique position among university writing centers in Japan, most of which mainly target Japanese L1 students and academic writing for course or test-preparation purposes (Johnston, Cornwell, and Yoshida 2008; Delgrego 2016).

The significant presence of IGS at Hiroshima University and the special role of the HU Writing Center have highlighted both the necessity and feasibility for an in-depth investigation of International Graduate Students and their research writing process. My role as the current Writing Advisor Fellow has also provided me with the professional insight and connections to carry out the project. Bearing in mind the relevant literature on Computer-Assisted Language Learning in §2.1, the current study addresses a gap in the intersection between Machine Translation in English pedagogy and writing center research. As a preliminary step of a larger project on IGS and research writing support, this study asks the following Research Questions from the viewpoint of International Graduate Students:

- (1). To what extent are IGS using AI translation to aid their English research writing?
- (2). What factors may affect their writing / translating experience?
- (3). How can the university writing center aid this AI-assisted writing process?

3. Methods

The current study bases its conceptual framework on several studies about English-Taught Programs (ETPs) and International Graduate Student satisfaction in Japanese universities (Bradford 2016; 2019; Rakhshandehroo 2018; Rakhshandehroo and Ivanova 2020). Although these studies are framed under slightly different contexts (e.g., undergraduate ETPs, overall experience of IGS), they serve as good baselines for the current investigation. Furthermore, differences in the results may warrant further discussion, since they may indicate the unique challenges one would face during research writing at the graduate level. When appropriate, I make use of the typology of challenges international students face proposed in Bradford (2016), while addressing additional factors specific to academic writing and publishing. Following Braun and Clarke (2006), the present study adopts an inductive Thematic Analysis approach.

The primary data of the study are from semi-structured interviews conducted with four International Graduate Students (1 male, 3 females) at Hiroshima University. All of them were at the "doctoral course / hakushi katei kōki" stage of their programs at the time of the interview. They were recruited through the connection of the HU Writing Center as they had either used the writing consultation service or participated in English writing workshops. The participants all signed an informed consent form before proceeding to the interview. Three of the interviews were conducted in English entirely, while during one interview the informant interchanged between his native language (Mandarin) and English. Table 1 shows the demographic information of the four participants.

Table 1. Demographic information of the participants.

Participant	Nationality	L1	Graduate Program
P1	Chinese	Mandarin	Early Childhood Education
P2	Malaysian	Malay	Applied Linguistics
P3	Chinese	Mandarin	International Education Development
P4	Chinese	Mandarin	Higher Education

The interview proceeded as follows. After elaborating on the purpose of the study, I allowed the participants to read the consent form and give their signed consent. The interview mainly

consisted of open-ended questions regarding their writing experience as IGS at Hiroshima University, concerns they had with translating between languages when they wrote in English, and their thoughts and worries on AI and specifically AI translation tools (e.g. DeepL, Google Translate, ChatGPT). The interviews were recorded and automatically transcribed via Microsoft Teams (regardless of whether the interview took place online or in person), with transcription errors being hand-corrected.

4. Results

4.1. Usage patterns of AI translation

Following the Research Questions outlined in §2.2, I report several emerging themes from the interview data. The first question concerns whether and how International Graduate Students make use of AI translation in their research writing process. All four participants reported that they had made use of AI for the purpose of translating between texts to some extent throughout their graduate program (whereas their engagement with AI-generated texts varied):

Table 2. Direction(s) of AI translation. Items in italics indicate translation between two non-

native languages.

P1	Chinese → English; <i>Japanese</i> → <i>English</i>
P2	English → Japanese; Japanese → English; Occasionally English → Malay
P3	Chinese → Japanese; Japanese → Chinese; Japanese → English
P4	Japanese → English; Occasionally Chinese → English

As shown in Table 2, each of the interviewees not only made use of AI translation tools, but also did it in multiple directions. Noticeably, in addition to using their L1, translations between their L2s (English \rightleftharpoons Japanese) were commonplace. Not having access to their L1 during some translation tasks had made the writing process frustrating, as they would remain unsure about both the original and the target texts:

- "I have taken it for granted that it [AI translation] *must* have some misunderstanding of my original ideas, because my poor English skills lead to this, not ChatGPT. I take this as a prerequisite to use [translation tools]" P1
- "And the difficult part is, even though I use them [AI tools] to translate, you know how[ever] much we are good at a second language, we are not the native speaker, and we don't have the feeling. In Japanese, *kan* (勘, "intuition")." P3
- "Sometimes when I tried to translate Japanese to English, as I don't, I'm not so familiar with [the] English language, so I'm not sure. I usually translate that, and then try to ask the native speakers to check the meaning" P3
- "...All the previous studies, papers, were in English, so I had to translate from English to Japanese, both are, for me are non-native languages... Sometimes I just felt 'What am I doing?" P4

Most of the interviewees were conscious of the fact that neither English nor Japanese was their L1, yet they were often required to translate between these two languages to communicate with their Japanese supervisors/cohort or to participate in primarily Japanese seminars. Crucially, while Birdsell (2022) and Sasaki (2023) have promoted AI translation as a

pedagogical tool for its ability to provide L1 feedback to the Japanese students, this was simply not applicable to IGS who had to translate between two L2s. I will return to this point during the discussion in §5.

Moreover, most of the interviewed IGS agreed that AI translation was useful in certain aspects of English writing, but less so during other stages. Grammar and vocabulary were mentioned by all participants as what AI tools excelled at. Among them, P1 also treated AI translation as a learning tool, where he could be made aware of words and expressions he was not familiar with for future use. On the other hand, when it comes to content and structural aspects of academic writing, the participants felt less certain on how much AI translation could be of help. This can be seen from the quotes below.

"I think checking grammar is very important for me, sometimes it [AI translation] would remind me of that grammar I already know, but I can't use in my own writing... But I know it has its limits, its ceiling. Sometimes I wonder if what it offers me is really usable." – P1

"I use it sometimes for vocabulary, sometimes for grammar, and sometimes for the fluence of the sentence. How to write the results, how to write the statement, I think it's related to the academic writing skills. That part is not so much [done by AI]. I use them for the language check." – P3

"Now I write in English, but I always feel stuck. I don't have enough vocabulary, I need to have it to polish my grammar... I'm not worried about the content, because I will always check it. The AI just polishes the English... But I do worry about it becoming too robotic." – P4

In short, being a non-native speaker of both English and Japanese has made it more challenging for IGS to write academically in English. They have tried to resolve some of the writing issues through the help of AI translation tools, yet have also acknowledged the limits of AI in offering guidance in academic writing skills. Crucially, the interviewed clients all had a clear idea regarding what types of feedback HU Writing Center is able to offer – comments related to higher-level issues such as structure and logic, precisely where AI is still lacking. Some participants commented that they would typically visit the Writing Center for these higher-level concerns, while leaving vocabulary/grammar/fluency problems to AI:

"Since we have things like ChatGPT now, the purposes I use the Writing Center may have changed. Maybe we can save more time, since we don't have to be bothered with basic grammar issues. We can now discuss on a deeper level, on some critical points 6 ." – P1

"As a user/client in the Writing Center, I feel like different tutors, they have different styles to do the session... Some people, they are really good at giving comments on the paragraph, some are really good at tutoring on the structure, and someone is really good at rephrasing." – P3

When asked about potential ethical concerns with using AI translation, many commented on their ambivalent feelings towards originality and privacy issues:

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⁶ P1 chose to respond in Mandarin Chinese for this question. The quote was translated by the author.

- "...Take literature review for example: me reading and memorizing papers versus the AI summarizing them for me. There seems to be very little difference between them in essence" P1
- "I don't feel like I'm cheating [using DeepL]... I really need help with the translation"; "If I prompt something and, they [ChatGPT], they'd give good ideas... I'm worried if I take those and put them into my writing, whether, is this really my work?" P2
- "...They talk about AI collecting a lot of information, from you and, then from everyone, and then they deliver to everyone... I'm worried that if my idea, if I ask ChatGPT to polish my English, but they give my idea to others..." P4

Whereas P1 argued that summarizing relevant scholarship with the help of AI did not constitute academic integrity violations in his opinion, P2 shared her concern with ChatGPT's ability to *expand* on certain inquiries – it would be difficult to "unsee" potentially useful ideas that were not part of the translation task but were nevertheless generated by AI. On the other hand, P4 was worried about the potential for these AI tools to leak what the users have uploaded, some of which might be sensitive or unpublished data. IGS remained skeptical about the personal information and privacy crisis that could be brought by the prevalence of AI.

4.2. Factors affecting AI translation usage

In this subsection I report some factors that may have influenced the interviewees in their AI usage. It is important to note that some aspects the participants commented on, were not directly related to specific properties of the AI tools, but were more reflective of the academic environment they were in.

Between the two popular varieties of AI translation tools, DeepL and ChatGPT, the participants had different preferences due to the functions they provide. P1 valued the "ability to have a 'chat' with ChatGPT", where he could revise the translation by pointing out aspects the chatbot might have missed in the first attempt. In comparison, DeepL only provided a translation result, with very little room for editing and revising. In comparison, P2 preferred to use DeepL for her translation tasks because she considered it to be "more accurate". In her case, the task-centric nature of DeepL may help reduce her uncertainty with translation. The almost opposite accounts of P1 and P2 also demonstrate that the language environment associated with their academic programs plays a pivotal role in how they seek assistance from AI translation. P1 comes from an overwhelmingly Japanese doctoral program where he could only communicate with a limited amount of people in English. As his target language of publication was English, much communication within his program (e.g., seminar materials, course projects) needed to be translated into English before it became useful for his research writing:

"I have some levels of Japanese so I can just cover all the daily dialogue, but of course for some serious topics I would like to use English... as I choose English as my main language of my doctoral program, I [will] never have a Japanese academic writing" – P1

On the other hand, P2 is enrolled in an English-medium program where most of her cohorts are international students. While her English level improved through interacting with her advisor and peers, there were still some Japanese writing requirements that made it necessary for her to rely on AI translation – "I had to write my research plan in Japanese and submit it to

the support office". Those documents, though administrative/managerial in nature (Rakhshandehroo and Ivanova 2020, 43), were directly related to her research topics (applied linguistics) and required her to know discipline-specific terms in both languages.

Compared to academic programs heavily skewed towards one language or the other, P4 was in a rather peculiar context where code-switching between Japanese and English was prevalent: all of the readings in her seminars and courses were written in English, yet the advisor used Japanese to communicate with the class and all course assignments were done in Japanese. Being at the middle of two foreign languages, the interviewee had to constantly translate terminology and ideas back and forth, from the English readings to her Japanese class projects, then to her own English publications. While this mode of bilingual education was somewhat innovative in the university, it did pose substantial challenges to International Graduate Students like P4 – unlike her Japanese peers, she did not have a first language to rely on during the back-and-forth translations between Japanese and English. To her, the efficiency and accessibility of AI translation tools were crucial to her success in the program.

One might wonder why IGS enrolled in Japanese-heavy programs decided to write academically in English to begin with, as it was often the case that English publications were not required for graduation if a student could write professionally in Japanese. P3 and P4 provided similar reasons, citing their professional goals as the main reason:

"I don't have to... there is no clear principle like 'you have to publish in English'... you know my professor doesn't care about my English writing"; "When I decided to use two languages, the reason is that I want to have a broad, or more options in the future. Once I write English paper[s], it means that some day I could be valued by another country... English [writing] is not so supported by my professor, so I do it myself." – P3

"I'm thinking about my future, my career, I don't know where I want to go... If I go back to China, they don't recognize Japanese papers. And if I want to go to other countries, they cannot read Japanese. So how can I prove that I can do the job?" – P4

As shown in these quotes, both participants were required to write research papers in Japanese by their academic programs. Nevertheless, both chose to write English on their own, sometimes with almost no support from their supervisors. Compared to domestic graduate students, IGS were less certain on whether they would seek employment in Japan after graduation (cf. Rakhshandehroo 2018). Their decision to write and publish in English was autonomous, as many of them were already considering moving abroad (or back to their home countries) and staying more marketable on the international stage. Without the explicit support from their supervisors, many of them did not have an authoritative figure proficient in English research writing throughout their program, and had to resort to AI translation tools.

5. Discussion and conclusion

This study aims to investigate to what extent and in what ways International Graduate Students in a Japanese university are utilizing AI translation tools during their research writing process. I have demonstrated that many participants had to translate in multiple directions involving more than one non-native language (i.e. Japanese and English) due to the language context of Japanese graduate programs. The interviewed doctoral students, being at a more

advanced stage of their studies, were also more autonomous and used both AI translation and writing center services to tackle their vocabulary/grammar issues and higher-level concerns respectively. Also notable is the fact that AI translation has allowed the IGS to use their L1s as a resource when learning English writing: whereas there is virtually no way for a Japanese institution to address the vast variety of foreign languages the IGS speak natively, the AI tools have provided a space where they can use their first languages to revise their writing with relative ease (cf. Sasaki et al. 2023; "L1 use as a resource"). Given these circumstances, integrating AI translation with writing has become a sustainable learning model for the International Graduate Students.

Moreover, I have identified several factors that either lead to preference over certain AI translation programs, and ones that made it necessary for the IGS to rely on AI translation. Some of these factors are not specific to AI writing support, but instead point at more general issues IGS may experience in their graduate programs – academic supervisors' overall indifference to English research writing being one particularly worrisome observation. As a research support unit of the university, the HU Writing Center alone is not equipped to resolve all the issues arising from these interviews. Nevertheless, I offer some open-ended suggestions from both the participants' reflections for writing centers to consider for their future work.

Several participants, while acknowledging that the HU Writing Center does not offer full proofreading services, did wonder whether it would be allowed to request 'light' proofreading for their AI translated texts (P3 referred to it as "native check" in her response). Although most writing centers in Japan still operate under a "no proofreading" policy (North 1984; Delgrego 2016), it might be viable to incorporate AI texts into our consultation services – translated texts generated by AI are usually free of grammatical mistakes or typos, which makes it easier for writing center tutors to focus on content and fluency issues. Arguably, it is less productive to require writing center clients to write solely in English and the tutors to ignore the prevalent lower-level issues they observe in the texts. AI translation tools provide an accessible way to fill the proofreading service gap during the research writing process.

The interviewed students were also expressing interest in seminars and training sessions for AI use. On the one hand, they would appreciate it if the school (or the Writing Center, for that matter) was more explicit on policies regarding ethical and responsible use of AI. P2, during her interview, mentioned that she was not sure if her text translated by DeepL could be still considered as "her work", and whether the translated text was eligible for writing consultation services. Regardless of whether this type of text is accepted, more clarification from the university or the Writing Center would at least reduce the uncertainties associated with AI and writing. Moreover, although not clearly communicated by the participants, writing centers and similar education support units may also assist the university students by providing instructions or workshops on prompt construction when interacting with AI — how to get feedback more efficiently, how to improve the translation quality, to name a few topics. More proactive instruction on AI usage may also help the Writing Center in the longer run as it streamlines the writing process for the writers before they visit us.

These suggestions aside, I am in no way suggesting that the current study can provide solutions to all that are related to AI translation and research writing, and supporting International Graduate Students in this context. It is more suitable to consider this article as a call-to-action for the current situation of English research writing in Japanese universities, especially ones involving International Graduate Students due to their language background. As Japanese universities strive to become more international, it is increasingly important to not

only allow for more international (graduate) programs and enrollment, but also provide fitting services in education and research support.

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