# Teacher Perspectives of Machine Translation in the EFL Writing Classroom

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This is a study investigating instructor belief on students' use of machine translation (MT) for language learning in the EFL writing classroom, and how teachers react when they discover students have been using machine translation. A qualitative research design with a constructivist approach, based on the *Naturalistic Inquiry* of Lincoln and Guba (1985) was used. Four experienced English teachers at Japanese universities were selected as participants. Interview questions on teacher beliefs were developed using findings in related literature. After interviews with the participants, a deep assessment of the interview transcripts and follow-up questions were conducted. The assessment followed Maxwell's (2012) guidelines of descriptive, interpretive, and theoretical validity. Then values coding (Saldaña, 2021) was used and several key themes on the beliefs of teachers emerged. The teachers were in support of embracing the technology of MT for classes. Moving forward, such teachers might benefit from training on integrating MT appropriately and effectively.

本研究では、EFLのライティング授業において、生徒が言語学習で機械翻訳（MT）を使用することに対する教員の信念と、学生による機械翻訳の使用が発覚した際の教員の反応を調査した。Lincoln & Guba（1985）の自然主義的探究に基づく構成主義的手法による質的研究デザインを用い、日本の大学において、4名の経験豊富な英語教員を参加者として選定し、関連文献の知見をもとに、教員の信念に関するインタビューの質問リストを作成した。参加者とのインタビューの後、Maxwell（2012）の記述的妥当性、解釈的妥当性、理論的妥当性の指標に従い、インタビュー筆記録及び、フォローアップ質問の記録の深い評価を実施した。次にSaldaña（2021）の価値観コーディングを用いたところ、教員の信念に関する重要なテーマが浮かび上がった。教員達は授業でMTの利用を取り入れることをに肯定的であった。今後、こうした教員達は、MTを適切かつ効果的に利用するためのトレーニングから恩恵を受けられるかもしれない。

In recent years, machine translation (MT) has become an increasingly popular tool for language learners and teachers alike. MT has the potential to make language learning more efficient and improve writing output, but it has sparked debates among teachers about its impact on language proficiency, learner autonomy, and academic dishonesty. The purpose of this paper is to explore the role of MT in English language education, with a focus on teachers' beliefs and reactions when MT use by students is discovered.

In this paper, I start with a review of the academic literature on the recent history of MT, its application to writing instruction and language learning, teachers' beliefs toward MT in language education, and the detection of MT student writing. A qualitative approach is used to collect and analyze interview data from four writing instructors. The emergent themes derived from the data, and the reaction of these teachers when they discover students' use of MT in English language writing classes are discussed. Finally, recommendations are made on how to move forward.

## Literature Review

### Recent History of Machine Translation

Google Translate and DeepL are powerful and free online machine translation (MT) tools for translating text. Prior to 2016, Google implemented the use of phrase-based statistical machine translation (PBSMT) technique, which breaks down the source text into phrases and translates the phrases independently before reassembling them into the target language (Lewis-Kraus, 2016).

While this approach can deal with simple translations, it struggled with idioms, misspelled words, figurative language, and complex language structure. In 2016, Google announced the transition from PBSMT to neural machine translation (NMT) (Lee et al., 2015) which translates text based on the content of the entire sentence as a single unit (Briggs, 2018) and this method preserves the meaning and structure of the original

text as closely as possible. Thus, the implementation of NMT has resulted in significant improvements in translations (Lewis-Kraus, 2016).

## Role of MT for Language Instruction and Writing Classes

Reported weaknesses of MT in writing include the output of literal translations, discursive inaccuracies in relation to connectives and co-reference, and the inability of the system to deal with cultural references (Niño, 2009). In addition, through the advancement in NMT, detection has become increasingly challenging for instructors in the field of language teaching, when the writer's actual writing ability without the use of MT tools is unknown (Stapleton & Ka Kin, 2019). There are concerns that MT can be detrimental where MT prevents learners from engaging in the writing process (Vinall & Hellmich, 2021). However, the readily accessible tool is omnipresent and an unavoidable part of our daily lives (Groves & Mundt, 2015).

The benefits of MT in the writing class have been investigated, showing positive outcomes of MT through activities such as pre- and post-editing, and identifying errors for raised awareness in cross-linguistic comparison and negotiation of meaning (Miyata & Fujita, 2017; Niño, 2008). One empirical study compared groups of learners who were either trained or not trained in post-editing skills using MT. Results showed that learners were able to identify and correct errors through error-specific MT training and repeated practice (Zhang & Torres-Hostench, 2022). The use of MT can reduce cognitive load (Baraniello et al., 2016), encourage autonomous learning (Niño, 2020) and learner-centeredness (Niño, 2009), as well as promote self-directed learning (Godwin-Jones, 2015). Despite concerns about dependence on MT, there are options to work in unison with MT to enhance learners' L2 writing in addition to guidance from an instructor (Jolley & Maimone, 2015; 2022).

## Teachers' Beliefs and Perceptions

Instructor beliefs and attitudes to MT have been investigated by various researchers primarily using surveys and interviews. Some researchers focused on the acceptability and academic integrity of using MT (Clifford et al., 2013; Niño, 2009), and findings have not always been consistent.

In some studies, it was found that students were discouraged from even single-word translations (Vinall & Hellmich, 2021). In other studies, MT was considered to be a form of plagiarism (Stapleton & Ka Kin, 2019). Also, teachers' beliefs were wide and varied from banning MT use, to integrating and building MT-use policies collaboratively with learners. Investigations report a wide range of acceptability from penalizing to praising and rewarding the use of MT. MT use by lower-proficiency learners was not recommended due to learners' inability to detect mis-translation (Niño, 2009), and there were teachers' concerns about learner dependence on MT (Kazemzadeh & Kashani, 2014).

## Detection of MT Use in Writing and Teacher Beliefs

The accuracy of written output and teacher's impression of Google Translate was conducted through a mixed-methods study (Stapleton & Ka Kin, 2019). Teachers graded student papers, then, the researchers assessed the reactions of the teachers when they were informed that they were grading 11- to 12-year-old students' writing tasks that had undergone MT (Stapleton & Ka Kin). Two out of 12 teachers detected the use of MT prior to the announcement. This was discovered through odd grammatical structures, or unnatural phrases that were unusual for writers of EFL in that age group. The remaining ten teachers were "surprised", "amazed" and "shocked" (Stapleton & Ka Kin, 2019, p. 24). They did not suspect the use of MT because they brushed off any errors in the text through L1 to L2 transfer or because the mistakes found in the writing were often typical of non-MT translated writing of their students. The teacher's impression of the range and quality of the vocabulary that the students used differed. One teacher mentioned she was impressed with the use of advanced vocabulary, while another felt the vocabulary use was basic. Another teacher felt there was sophisticated vocabulary positioned in badly structured sentences. With respect to grammar, the instructors felt the quality was generally good, and also above average in some cases. In one interview, the instructor reported there were only minor problems, and they did not affect comprehensibility, which was also rated as above average.

Related to the beliefs of using MT, nine out of 12 teachers would encourage learners to have access to educational tools, and were positive about students using the tools for learning. However, they expressed it would only be acceptable to use it in a manner that students can benefit from the use of MT (Stapleton & Ka Kin, 2019). More specifically, teachers reported that single-word translations or to use it as a dictionary to look up vocabulary would be acceptable. Another teacher commented that students should be aware of best practices when using MT. There were also mixed opinions on the appropriate proficiency level to use MT. Three teachers were strongly against the use of MT, even for single words, because immediate access to translations may negatively influence motivation to learn. Another teacher voiced concerns of learner dependency. The authors noted that all teachers were concerned about possible negative effects MT

might have on student learning, however, in general the teachers in this study largely believed there appeared to be a place for MT in language education. In addition, some teachers suggested that in order to benefit from the use of MT, students should be offered guidance and training to use MT appropriately.

## MT in English Language Education in Japan

Few MT studies are based in Japan. While there are empirical studies on student or instructor attitudes through surveys or short interviews, there are limited studies similar to that of Vinall and Hellmich (2021), that offer thick description (Holliday, 2002) of the mindset of instructor beliefs in a Japanese university setting.

The aim of this study is, therefore, to investigate instructor beliefs using qualitative methods focusing on students' use of MT for EFL writing. Thick description provides substantial details about the participants' context, circumstances, and culture to allow the reader to understand participants' perspectives. To address the gap in the research, the following research questions were formulated:

RQ1. What are teachers' beliefs related to students' machine translation use in English language writing classes?

RQ2. How do teachers react when they discover students' use of machine translation in English language writing classes?

## Method

### Participants

Experienced university English as a Foreign Language (EFL) teachers ($N = 4$) were purposefully sampled (Patton, 1990) using a strategy to select those with qualifications in Teaching English to Speakers of Other Languages (TESOL). They teach full-time or part-time at Japanese universities for between five to sixteen years with experience teaching various writing classes in the Japanese university context. The purposeful sampling was used as a guide to identify participants who fit the profile.

These participants instructed a variety of writing styles depending on the courses taught. However, all of their students wrote drafts, revisions, and final versions of one or more of the following typical English for Academic Purposes (EAP) genres, namely, outlines, summaries, cause and effect, argumentative essays, reaction papers, and research papers. The teachers provided feedback by writing directly on the students' drafts at different stages of their writing. The students in their classes all have access to MT either through their own computers, designated computers provided from the university, or through their smartphones. See Appendix A for details of the participants.

### Positionality Statement

I, in the role of interviewer, and each of the four participants are closely acquainted. In accordance with Roulston (2010), the relative intimacy and rapport between myself and each participant garnered a high level of trust in the interviewees' statements. All interviewees work in the field of TESOL, and there might be a certain level of instructors' professionalism the interviewees might feel obliged to perform or maintain during the interview. Hence, the responses from the participants might be adjusted towards a certain level of appropriateness and acceptability to satisfy the expectations of the interviewer who works in the same tertiary education system.

When necessary, further email correspondence was conducted after the interview data were reviewed. For the follow-up correspondence by email, participants were requested to respond "as honestly as possible" and the idea that participants' anonymity will be kept as best as possible was reinforced, in order to obtain a truer picture of each participant's beliefs.

### Data collection

#### *Interview Questions*

The interview protocol included a set of theme-specific questions. The list of questions was developed by considering whether survey questions adopted by other instructor belief-based studies in MT (e.g. Niño, 2020; Stapleton & Ka Kin, 2019) could contribute to answering the research questions in this study. Peer-review was used to refine the list of adopted and original questions. The list of questions was reviewed and revised with input from a group of TESOL doctoral students with EFL teaching experience in Japan who have similar credentials to the participants of this study, and an expert in qualitative studies. See Appendix B for sample interview questions, and the following link for the full list of questions: https://tinyurl.com/JALT2022PCP-Uehara.

In February 2022, one-hour semi-structured interviews were conducted with each participant in the location and language of the participants' choice. The semi-structured style was chosen because in qualitative research, such style offers greater flexibility, and allows for more participant engagement. It can also lead to unexpected emergent themes. The interviewees were requested to imagine a scenario in which they teach writing classes when responding to the questions. The list was used during the

interview, however, as the questions were asked, many of the subsequent questions were answered in the interviewees' responses. It was checked that the overarching themes in the questions were covered during the interview. All participants received documents explaining the purpose and procedure of this study, and written consent was signed at the beginning of the interview. Three interviews were conducted in English (Melanie, Joshua, & Sae), and one in Japanese (Ken). The names are pseudonyms, and each interview was recorded using Zoom.

### Transcription Approach

The transcription conventions by Powers are to "make copies of recording, create a verbatim transcript, have the transcripts reviewed, make revisions where relevant, record contextual information, index and archive," (2005, p. 30). Conventions of writing such as spelling, punctuation, paragraph divisions, and keeping words and deleting words were followed. For the purpose of clarity and readability, the transcript was edited.

The data were transcribed for content, but not for how each participant and I interacted. Pauses, overlaps, and recasts were not included. The interview with Ken was conducted in Japanese. The Japanese transcript was edited, then, translated, then back-translated to check the translation for accuracy. Each transcription was reviewed by the participants for respondent validation, also referred to as member checking by Lincoln and Guba (1985). Member checking is used in qualitative research to enhance the trustworthiness of the research findings by allowing the participant to review and verify the accuracy of the researcher's interpretation.

### Data Analysis

The data were reviewed using values coding, a process that involves identifying segments that express participant values (Saldaña, 2021), and themes on the beliefs of teachers emerged through this inductive method of analysis. Multiple cycles of coding were conducted. Tentative codes were marked and recorded on the handwritten notes taken during the interview, and on qualitative data analysis software, MAXQDA. The transcriptions and videos were revisited using the tentative codes, and these were applied again to emergent themes. A final cycle of coding was applied to refine and further analyze the themes. Summaries of the analysis were validated through a data session with the participants two months after transcription.

Using Maxwell's (2012) definition for descriptive, interpretive and theoretical validity, the results section reflects on the factual accuracy extracted from the data. The interview data were explored fully through multiple readings and viewings of the interview notes, transcriptions, videos and MAXQDA coding. By reading and viewing the data, salient themes emerged. These themes are summarized and thick descriptions of relevant excerpts as described in Holliday (2002) are provided in the results section.

Finally, to maintain validity, peer review to refine interview questions was used and thick descriptions of the research context, participants, and findings were described. Also, my positionality statement was provided to ensure transparency. Finally, member checking at different stages of this research was conducted to ensure an accurate representation of the participant's experiences.

## Results and Discussion

In this section, the emergent themes from the stories of the participants for each research question are described. In answer to RQ1 focusing on instructor beliefs related to students' use of MT, five prominent themes emerged.

For RQ2, as for how the instructors reacted when MT use was found, Melanie and Joshua dealt with learners individually, while Sae would first discuss the issue openly in class. Ken did not encounter any MT use by his students but said he would not confront the students just in case he was wrong. See Appendix C and Appendix D for selected stories related to RQ1 and RQ2 respectively, and the following link for more details https://tinyurl.com/JALT2022PCP-Uehara.

### RQ1: What Are the Instructor's Beliefs Related to the Students' Use of MT?

Overarching themes from the four participants' stories were related to proficiency level, learning process, the degree to which MT can be used, accessibility, and policy. The instructor's beliefs are summarized below. See Figure 1 for a summary.

Proficiency should be considered when MT is used. For example, lower-proficiency learners should especially avoid using MT. This is in line with major qualitative and empirical studies. However, more empirical studies of low-proficiency learners might reveal benefits from the use of MT despite instructors' beliefs that lean toward a skeptical eye of MT used by such learners. Especially with the high accessibility of MT, guidance is required for learners at different levels, to understand when and how the application can be used to support the aims of language learning for writing purposes.

All instructors in the study believed that there should be some learning process involved if the tool is used for language learning. The tool (if used) should help and not

hinder their learning process. MT should not be used as a shortcut and learners should be in charge of each step of the writing process. If MT is used, it should be implemented to support but not replace that process. MT, if used inappropriately, was considered cheating and skipping a step in the learning process, which hinders learning. Vinall and Hellmich (2021) described a participant, Leon (teacher), who took "the path of least resistance" (p. 110). He adapted the assignments so that MT would no longer be the path of least resistance. He spoke more about the nature of language, what MT is, and the pros and cons of using MT. He emphasized the human aspects of communication, so that correctness and machine-like behaviors are not the emphasis (Vinall & Hellmich). Leon transformed his classes to deemphasize grammatical correctness and instead focused more on communicative skills. If the course curriculum allows this, then this is one approach to integrating MT in the classroom.

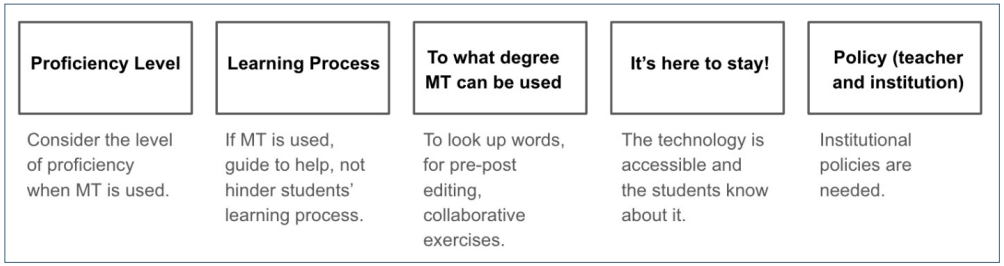
The degree to which MT can be used varied amongst the participants. Joshua provided examples such as a collaborative exercise comparing translations of different MTs and noticing the difference. Sae instructed learners that post-editing skills should be applied to machine translated text, and Melanie and Ken agreed that MT could be used as a dictionary to look up individual words but not for phrases, sentences and definitely not entire text.

Three teachers (Joshua, Melanie, and Sae) agreed that learners are aware of the existence of MT, and that the application is here to stay. They recognized students use MT for written assignments. Teachers should therefore guide the learners on best practices. This may be related to policies and academic integrity, or providing guidance on practical skills on how to improve writing skills by integrating MT in the writing classes.

Finally, all teachers expressed that there were no institutional or departmental policies related to the use of MT in the institutions where the teachers taught. Sae provided clear in-class policies at the start of the semester, while Melanie and Joshua would deal with the students on a needs basis. Ken was not aware of the use of MT by his students, so he did not have any opportunity to establish any policies relate to MT in the classroom. This suggests a need for policies to be discussed and implemented by faculty members based on the curriculum.

**Figure 1**

*Emergent Themes on Teacher Beliefs on MT Use*




In summary, these emergent themes overlap with selected points mentioned by the instructors in Stapleton and Ka Kin's (2019) interview about the instructors' beliefs about student MT use. Teachers noted concerns about low-proficiency learners of English using MT, willingness to encourage the use of MT if students can use the tool to benefit their own language learning experience, and where to draw the line in relation to the degree of acceptability in using MT, for example, the text length, such as individual words, phrases, or the entire text. Teachers in Stapleton and Ka Kin's study were concerned that MT could undermine students' motivation to study because students will not have a reason to learn to write in English with the accessibility of this tool. Finally, some teachers suggested that guidance was necessary for students to benefit from the use of MT.

## RQ2: How Do Teachers React If and When They Discover Students' Use of Machine Translation in the English Language Writing Classes?

As for how the instructors approached learners, Melanie and Joshua dealt with learners individually, while Sae provided guidelines on how to use MT to all students in the first class and discussed the issue openly in class. Ken, was not aware that students used MT, and did not mention any protocol in his writing classes.

When Melanie discovered that the students that she taught had been using MT with the assignments, she would deal with students on an individual basis, first by highlighting to the students how she knows or recognizes where MT was used in the student's writing. Then, she would try to reason with the students that they should make an effort. She explained that the underlying issue might be due to a lack of confidence in the use of language. Melanie feels the students might have ingrained that mistakes are bad, so the

goal of the exercise is to provide work that is grammatically correct. In effect, students rely on MT under the impression that MT will give them access to the "right" answer.

Similar to Melanie, Sae would write detailed feedback on students' drafts, hinting that she noticed that no post-editing had been conducted. Sae noticed oddness in the writing (e.g., different font or color, sophisticated writing) and that the post-editing (which she specifically requested prior to the first draft) was not applied. Joshua would model the use of MT so the learners could see odd translations as a deterrent towards the use of MT. Although Ken did not encounter any MT use by his students, he said he would not confront the students just in case he was wrong. Sae mentioned that the use of MT was discussed in a faculty development meeting amongst teachers teaching the same course, and called for decisions to be made by the policy makers (e.g. language department) on policies related to MT.

Issues related to disappointment and trust were expressed by Melanie, Sae, and Joshua when they found students had used MT for their assignments. They were disappointed and felt the trust was broken between the student and instructor. For some instructors, the appropriate use of MT is something instructors expected students to be aware of as a student in academia. In a similar way that plagiarism is not allowed, Melanie and Joshua indicated that students should be aware that inappropriate MT use is not allowed, while other instructors (Sae) set these guidelines and policies from the start of the semester. Sae guides learners openly in the first week of class because she has been dealing with MT use issues and consulted with other teachers' teaching similar courses. For Ken, he is surprised that students might be using MT knowing it is a shortcut in the writing process, but would prefer not to interrogate the students to prevent hurting their feelings if Ken suspects wrongly.

## Conclusion

This paper set out to explore the beliefs of EFL writing teachers in a Japanese university setting as they related to students' use of machine translation in the English language classroom, and how teachers react, if and when they discover students' use of machine translation. The interviews in this study revealed such overarching themes and opinions of the instructors' beliefs of MT in the writing classroom, and how teachers deal with situations when MT use by students is revealed. Past studies have shown a similar range of results and, while there is overlap in the beliefs, there is no one set pattern.

Moving forward, the participants agreed that the technology should be embraced because it is here to stay. Implications are that activities and tasks that measure skills in writing should be developed to reflect the tools that learners already have access to. Learners and instructors should be trained how to use the tool effectively, and as a result, their awareness of when and how the tool can be used to improve and not hinder writing will be raised. With the increasing accuracy of MT, both learners and instructors may benefit from clear guidelines and policies from the course, curriculum, department and institutional level, and further in-depth mixed-methods investigations might reveal prominent patterns in the beliefs of instructors in the Japanese university setting.

## Limitations and Further Directions

The aim of this qualitative study was to investigate deeper thinking of EFL instructors in the tertiary level specific to writing instruction. The results are not to be used to offer generalizations on instructor beliefs, but rather to gain a deep understanding of this topic from the perspectives of the participants in this study.

The future aim is to use these results to further develop Likert-scale items to be answered by teachers, then to report on a mixed-method investigation of the teacher's beliefs of MT use for written L2 instructions in the tertiary educational setting in Japan.

## Bio Data

**Suwako Uehara** is an Associate Professor at the University of Electro-Communications, Japan, teaching English for academic purposes (EAP) and English for specific purposes (ESP) to undergraduate and graduate students. She runs the self-access learning center developed to encourage autonomous language learners. Her research interests include 21st-century education, CALL, creativity, autonomous learning, and corpus linguistics.

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## Appendix A

### Participant Information by Gender, Country of Origin, Part-time or Full-time Status, Institution, Students' English Proficiency, and Type of Classes Taught

| Name | M or F (age) | Country | Edu (Country) | Exp at Uni | FT or PT | Private or Public | SSs Proficiency | Classes Taught |
|---|---|---|---|---|---|---|---|---|
| Melanie | F (53) | US | MA (US) | 16 | FT | 1 private | TOEIC 325-500 | Academic Writing for 1st-years and 2nd-years in a Global Career Program |
| Joshua | M (34) | US | MA (US) | 5 | PT | 1 public<br>2 private | TOEFL 500–550 | Technical English writing summaries, five paragraph essays, outlines, academic posters |
| Sae | F (40's) | JP | MA (JP) | 5 | PT | 4 private | TOEIC 600–800 | Beginners to advanced level in reading and writing |
| Ken | M (42) | JP | MA (US) | 12 | FT<br>PT | 1 private<br>2 private | TOEFL 500–550 | High-intermediate to high-intermediate. In some course advanced or native level proficiency |

*Note.* Name = Pseudonym for each participant; M or F = Male or Female; Country = Country of Origin; US = United States of America,; JP = Japan; Edu = Highest educational qualification; Exp at Uni = Teaching Experience at University in Years; FT or PT = Full-time or Part-time; Private or Public = Affiliation at a private or public university in Japan; SSs Proficiency = Students' English Proficiency based on TOEIC or TOEFL scores; Classes Taught = Type of classes taught for the purpose of this study.

## Appendix B

### Sample Interview Questions

RQ1: What are EFL teachers' beliefs related to students' machine translation use in English language writing classes? (values coding)

**General**

1 What are your thoughts about students using MT in your writing class(es)?

**Awareness and avoidance of MT**

2 Do you encourage or discourage the use of MT to your students?

**Recognising use of MT**

3 How do you identify student work which has been done using MT?

**Guidelines**

4 What guidelines do you give students related to MT, if any?

**Expectations towards the students and the institution**

5 What expectations of the students do you have related to the use of MT?

**Language learning process**

6 In what way does MT help or hinder the process of learning English? (Adapted from Garcia & Pena, 2011)

**Degree of Permissibility/Ethics/Academic integrity (Ata & Debreli, 2021)**

7 What are your beliefs related to the ethics of using MT for single words; phrases; sentences; paragraphs, and the entire text? (Ata & Debreli, 2021)

RQ2: How do teachers respond if and when they discover students' use of machine translation in English language writing classes?

**Reaction to MT use**

8 What is your reaction upon learning that you read MT's from students (Stapleton & Ka Kin, 2019)

## Appendix C

### RQ1 Melanie, Joshua, Sae, and Ken's Beliefs of Using MT

#### *Melanie's Story*

Melanie expressed concern related to proficiency level. She said "For the lower-[proficiency] level students, it's a hindrance because they just don't have the skill to even discern if the translation is correct or not… for my students because their level is lower, they don't really know how to compare the two languages… so when they translate [using MT] they are skipping this skill. They are actually cheating themselves."

#### *Joshua's Story*

Joshua welcomes the use of MT by students if there is some learning outcome. He explained, "I'm not discouraging students to use it (MT)...If there can be positive uses of it…talking about that in English…I think that's a perfectly appropriate activity for students to gain awareness about the technology". Joshua quotes, "The cat's already out of the bag so I don't see the point in assigning punishment for any sort of taboo to its use. Instead, I think it's better to reckon with it and say this is something that exists."

#### *Sae's Story*

Sae instructs learners to have ownership of their writing and teachers post-editing procedures (Ducar & Schocket, 2018). She said "If you are using Google Translate (MT) make sure you review your document…I will not say don't use machine translation, [but] if you want to use it, you can use it, but please check and understand what you got [learnt] from machine translation, because I will ask you [students] about your [their] sentences, and if you [they] say I'm not so sure, it's translated by machine, you [they] cannot say that it's your [their] sentences." None of the institutions she works for had provided specific policies related to the use of MT in language classes, but she expressed the need for "shared understanding" of policies amongst teachers.

#### *Ken's Story*

Ken reflected on his experience studying English. He said, "if you speak and write in Japanese while translating into English [by using MT], you cannot reduce that habit [of automatized translation], and you cannot react spontaneously, and you cannot develop fluency…when you only use MT, get it done, and submit it, I don't understand what the point of the assignment is." Ken's prior learning experience was reiterated throughout the interview. Ken did not want his learners to become dependent on MT, and felt that MT only hinders learning, but if MT is being used, he wants students to learn something from that process.

## Appendix D

### RQ2 Melanie, Sae, Joshua, and Ken's Reactions When MT Use is Discovered

#### *Melanie's Story*

Melanie found it increasingly more difficult to detect the use of MT by her students, and as a result, she made more challenging tasks. She said "In the past…I got something that was Google translated, I knew instantly…I would say, "This part is not your writing"…this year particularly because everything was paperless and students were doing everything on computers, I noticed as the classes were progressing…they were masking their real level and I was making harder challenges for them thinking they were at this higher level…when I would actually talk to them face to face I would realize they can't even read their own papers."

#### *Joshua's Story*

Joshua identified students' use of MT for writing assignments through sudden growth in grammatical accuracy, use of eloquent vocabulary, or due to traces of L1 in the L2 output such as the lack of pronouns. Another method of identification was when a student's assignment had the words "Translated by *DeepL*" at the end of their work. Joshua approached such students individually. He said, "If I recognize they have used it, I'll write notes and talk to them quietly (so as not to embarrass them in the class)."

#### *Sae's Story*

Sae recognized MT use through vocabulary choice, sophisticated grammar, or formatting style. She said "After I tell the student how I noticed, such as "why the color is changing or this part the style of the writing is something changing…?", the students get embarrassed, [because they are caught] and after that, that the student tried to write on their own." Similar to Melanie, Sae will ask the student to explain their written work. If the students could not explain what was written, the assumption was that there was no learning from the exercise. She is not shy about openly addressing MT use by students

to the whole class because she has already provided guidelines at the beginning of the semester.

### *Ken's Story*

Ken did not recognize any MT use in his students' writing. He said "I've never used the app before. Do they (students) really use *DeepL*? I would not want to confront them because they might not have used it. I would not want them to use it, but if they do, I want them to learn something from it." He also said "But I'm also afraid that if I introduce it [MT], students will start using it. If they are already using it…it is not something I would want to recommend…In fact, I don't have enough knowledge to judge whether they are using Machine Translation or not…They might have not used it at all, and informing the students would be a shock to them. I think this is a very sensitive issue."