Student Perceptions of Online Interpreting Teaching and Learning via the Zoom Platform

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Abstract

The COVID-19 pandemic has forced us to engage in the ubiquitous use of virtual interpreting teaching and learning. The sudden shift of teaching mode has resulted in unplanned challenges. The main concerns among teachers and students include teaching quality and learning effectiveness. To examine the effectiveness of interpreting teaching and learning online, we conducted a survey about students' perceptions of satisfaction concerning online interpreting teaching and learning via an online platform. This survey is composed of questions to measure student satisfaction from six aspects, namely, instructor, technology, setup, interaction, outcomes, and overall. Results showed that the shift to abrupt online interpreting teaching and learning did not have any significant impact on teaching quality and learning effectiveness. Findings also highlighted the need for further investigation of self-regulation and self-directiveness in online interpreting teaching and learning. Essential pedagogical tasks can be conducted online (e.g., triangulation exercises, relays, handover, and channel switching). Implications are provided based on the findings.

Keywords: *online interpreting teaching and learning, perceptions of satisfaction, online learning platform*

The COVID-19 pandemic has impacted education at all levels (Carrillo & Flores, 2020), including interpreting teaching and learning, which is forced to shift to the online mode. Compared with other language- and translation-related courses, interpreting teaching requires more student participation and instant feedback from instructors. If a highly interactive course can be conducted online with a high satisfaction level of students, then online teaching will be a safe option for students during the pandemic. However, the subsequent change in teaching modality has posed many challenges to teachers and students who need to adjust to the new modes of teaching online. As a result, teaching quality and learning effectiveness have become major concerns. Obviously, when online interpreting teaching was the norm of the teaching mode, it means that both teachers and students need to get used to this new mode and all those new tools and techniques that come with online teaching and learning platforms, not to mention that both teachers and students need to wear masks during classroom interactions via screen-sharing and online stream recording. Therefore, a smooth transition from a traditional face-to-face educational environment to distance and virtual learning cannot occur overnight.

As educators in a higher education institution offering programs in translation and interpreting, we want to explore the advantages and disadvantages of the remote teaching and learning of interpreting through Zoom as opposed to the traditional face-to-face interpreting training, its quality and its creativity. What sort of new pedagogical tasks can also be carried out while interpreting teaching and learning online? Is it effective? More importantly, other questions also need answers from empirical investigations, such as "How do teachers and students react to this new mode of teaching and learning platform?" or, in other words, "Are they satisfied or happy with their online learning or teaching experience?"

Recently, research has been conducted on the advantages and challenges of online learning and teaching from the perspective of various stakeholders. For example, Mailizar et al. (2020) suggested that students' voices are important to this issue. Therefore, future research should investigate students' opinions regarding online learning to examine the challenges faced by students (Adnan and Anwar, 2020).

To provide some answers and to examine the effectiveness of interpreting teaching and learning online, we conducted a survey about the students' perceptions and level of satisfaction regarding online interpreting teaching and learning via an online platform, i.e., Zoom. It was hoped that the survey could contribute to depicting a clearer picture of the teaching and learning experiences, reflecting students' perceptions of different constructs of online teaching and learning. Specifically, the survey measured students' perception and satisfaction from six aspects, concerning the instructor, the technologies, the setup, the interactions, the outcomes, and the overall satisfaction level (cf. Bolliger and Halupa 2012). In addition, two extra open-ended questions were added to cover the related issues about online interpreting teaching and learning more comprehensively.

This research probed into the students' perceptions and levels of satisfaction when they had to switch to online learning. It was based on a survey of 106 students from different academic programs from the School of Languages and Translation at the Macao Polytechnic Institute that offers several interpreting-related programs (e.g., between Chinese and English, Chinese and Portuguese, and vice versa).

Literature Review

Remote interpreting (RI) "refers to the use of communication technologies to gain access to an interpreter in another room, building, town, city or country" (Braun, 2015, p. 352). There were two best-known modes frequently studied and used: telephone interpreting for public services and healthcare interpreting (first service in 1973 in Australia) and videoconference interpreting in response to the significant amount of interpreting service in multilingual international organizations (first service in 1976 in UNESCO. In fact, remote interpreting practice is not a new thing in interpreting. In 2004, a large-scale experiment on remote interpreting was conducted at the European Parliament, and in 2011, it was used successfully for working lunches and dinners of the European Council (Vereycken, 2012). Meanwhile, RI learning came into practice in the early 21st century. It was mainly adopted for short-term certificate programs, such as the Distance Court Interpreter Training Program at Vancouver Community College in Canada (Carr & Steyn, 2000) and medical interpreting training in Turkey (Güven, 2014).

However, the idea of remote interpreting had once encountered considerable resistance from professional interpreters' associations (e.g., AIIC – International Association of Conference Interpreters). In AIIC's "Code for the use of new technologies in conference interpretation", published in 2000, the association warned that "the temptation to divert certain technologies from their primary purpose, e.g., by putting interpreters in front of monitors or screens to interpret at a distance a meeting attended by participants assembled in one place (i.e., tele-interpreting), is unacceptable." This position had remained firmed until 2020, when the outbreak of the COVID-19 pandemic hit the world. Considering the health and well-being of both interpreters and clients, the AIIC issued the "AIIC Interpreter Checklist - Performing Remote Interpreting Assignments from Home in extremis during the COVID-19 Pandemic". In the introduction of this orientation, AIIC pointed out that "adapting working conditions to the various DI [distant interpreting] modalities – including remote interpreting from home – is imperative and may set a precedent for the future."

Moreover, due to travel restrictions and sanitary measures during COVID-19, remote participation has become the only possible solution for many meetings. Remote interpreting (RI) must be arranged to transmit interpretation to remote participants. The most recent research (Wang & Wang, 2021, pp. 105-112) presents the functions and characteristics of the prevailing RSI platforms, namely, Kudo, Interprefy, Voiceboxer, Interactio, Speakus, Verspeak, and Zoom. All these basic services are available on these platforms, including video streams, audio streams, and interface services. Some paid platforms even take into consideration specific requirements of interpreting services (relay, handover, etc.). Boostlingo, an interpreting delivery and management platform that offers on-demand video remote interpreting (VRI) and over-the-phone interpreting (OPI), although not mentioned in the above research, experienced a growth of 140% in 2020 (Hickey, 2021).

The spread of COVID-19 in 2020 called for an abrupt transition to the interpreting service industry, as well as the transition to online teaching, including semester-long interpreting classes for degree programs. In addition to being a measure of keeping students learning during the pandemic, online interpreting training also facilitates interpreters' adaptation to the mode of RI. As an emergent measure in response to the restrictions imposed by the COVID-19 pandemic, online interpreting teaching and learning has caught up with grounded research and market practices, together with the advancement of technology.

As interpreting teaching involves many interactions and intensive practices, distance teaching seems to set up a barrier for learners to access instructors directly. However, as it has become inevitable during the pandemic and a must due to the increasing demand for remote interpreting, we need to understand if the practice of learning interpreting online is feasible. A very important factor in determining the future of distance synchronous interpreting learning is student satisfaction. In view of this, we conducted this study to evaluate online interpreting learning through student satisfaction to provide the rationale for online interpreting learning as a viable option of teaching mode.

Research Questions and Design

Students' perceptions of online interpreting learning were measured by the Student Satisfaction Questionnaire (SSQ) adapted from Bolliger and Halupa (2012) with some modifications made to suit the special case of online interpreting. Our instrument was developed based on Bolliger and Halupa (2012), which contains satisfaction elements that were derived from previous studies, such as Bolliger & Martindale (2004) and Liaw (2008), and therefore presents comprehensive measurements of student satisfaction. Moreover, according to the authors, the SSQ had high reliability (a =.91), and the reliability of all subscales was acceptable, which helped to ensure the quality of our survey. It consists of 25 five-point Likert scale questions ranging from strongly disagree (1) to strongly agree (5) and 2 open-ended questions. These questions measured student satisfaction from six subscales: (a) instructor, (b) technology, (c) course setup, (d) interaction, (e) outcomes, and (f) overall satisfaction (Bolliger and Halupa 2012). These six subscales constituted our research questions regarding instructor, technology, course setup, interaction, outcomes, and overall satisfaction:

1. How accessible are instructors of an online interpreting course? (Survey Questions 1-4)
2. How helpful are the functions of a video conference platform for learning? (Survey Questions 5-12)
3. How motivated are students to learn interpreting online? (Survey Question 13)
4. Do students feel connected to others during online learning? (Survey Questions 14-17)
5. Is online interpreting teaching effective? (Survey Questions 18-21)
6. Are students satisfied with online interpreting learning in general? If not, why? (Survey Questions 22-25)

All the above subscales have four to eight questions, except Subscale 3, which asks about students' self-motivation and only has one question. In Bolliger and Halupa's satisfaction tool, four questions are listed under this subscale, including the following:

(1) I am satisfied with the frequency I have to attend class (e.g., log in to the course).

(2) I am satisfied with the flexibility this course affords me.

(3) I am dissatisfied with the level of self-directedness I am given.

(4) I am satisfied with how much I enjoy working on projects by myself.

As the courses under discussion are all compulsory and conducted synchronously online with no individual projects, questions (1), (2) and (4) are not applicable in our instrument. In addition, the course setup of online interpreting teaching is exactly the same as that of the face-to-face mode, with the same number of teaching hours per week. Therefore, we developed only one question under the "course setup".

To collect more comprehensive feedback from the target students, we also designed two open-ended questions to collect information from the respondents that may not be covered in the 25 multiple-choice questions.

All survey questions were reviewed by two instructors who have rich experience in online interpreting teaching to ensure that the questions were pertinent to the topic under discussion. The participants were students enrolled in the interpreting-related programs of the School of Languages and Translation (ESLT) at the Macao Polytechnic Institute (MPI). MPI is a public multidisciplinary higher education institution located in the Macao Special Administrative Region, China. ESLT, one of its six schools, offers both daytime and night-time degree programs in languages and translation. The study was conducted among students of Bachelor of Arts in Chinese-Portuguese/Portuguese-Chinese Translation and Interpretation (BA in CP), Bachelor of Arts in Chinese-English Translation and Interpretation (BA in CE), and Master of Chinese-Portuguese Translation and Interpreting (MA in CP).

Interpreting courses offered by ESLT include Introduction to Interpreting, Consecutive Interpreting (E-C), Consecutive Interpreting (C-E) and Simultaneous Interpreting (for BA in CE); Consecutive Interpreting and Simultaneous Interpreting and Introduction to Simultaneous Interpreting (for BA in CP); Interpretation Techniques and Practices, Sight Translation, Consecutive Interpretation, Advanced Consecutive Interpretation, Simultaneous Interpretation, Consecutive Interpretation Practice, Simultaneous Interpretation Practice, and Conference Preparation (for MA in CP). These courses were delivered online mainly during two periods, a major part of the second semester of the 2020/2021 academic year. February to May 2020, and the first two weeks of the first semester of the 2021/2022 academic year, i.e., August 20 to September 3. Students took part in the classes either at home on the Chinese mainland or in Macao or in the dormitory on campus.

Online classes were delivered via Zoom, a popular video conferencing platform, and study materials were presented through Canvas, a centralized learning management system. The instructors of the courses have rich experience in classroom interpreting teaching and have received training for the use of Zoom.

The survey titled "Perception of online interpreting teaching and learning" was sent out, and it received, in total, 106 responses. Details of the survey respondents' background information can be seen in Table 1 below:

Table 1. Background Information about Survey Respondents

Gender	Female	30	28.3%
	Male	76	71.7%
Age	18-21	55	51.89%
	22-25	26	24.53%
	26-29	10	9.43%
	30 and above	15	14.15%
Years of interpreting study	0-1 year	61	57.55%
	1-2 years	24	22.64%
	2-3 years	17	16.04%
	4 years and above	4	3.77%
Programme and year	BA in CE/CP first year	1	0.94%
	BA in CE/CP second year	1	0.94%
	BA in CE/CP third year	50	47.17%
	BA in CE/CP fourth year	40	37.74%
	MA in CP first year	11	10.38%
	MA in CP second year	3	2.83%

Results and Discussions

All subscales had a mean score above 3.5. The instructor subscale yielded the highest mean score (M = 4.17) of all six subscales, closely followed by the technology subscale (M = 3.83). The course setup subscale had the lowest mean score (M = 2.97). These results show that participants were generally satisfied with the online interpreting teaching and learning course (Table 2).

Table 2. Mean Scores and Standard Deviations for Satisfaction Subscales

Subscale	M	SD
Instructor(1–4)	4.17	0.74
Technology(5–12)	3.83	0.98
Setup(13)	2.97	0.99
Interaction (14–17)	3.45	1.02
Outcomes(18–21)	3.51	0.99
Overall (22–25)	3.45	1.06

The following are the more detailed results of each of the subscales to be elaborated on individually.

Research question 1: How accessible are instructors of an online interpreting course? (Q1-4Q)

The availability of teaching resources is of crucial importance to cultivating students' sense of belonging, which is closely related to students' satisfaction. However, in an online class, instructors are one of the most important aspects of teaching resources, and students are not in the same physical setting. Therefore, we asked about collaboration and communication between the two parties, including assignment and test feedback.

All 4 items had a mean score at or above 4.00 (Table 2). Over 84.67% of the respondents strongly agreed or agreed with the following items:

> Q1. Class assignments were clearly communicated to me. (87.74%)
>
> Q2. Feedback and evaluation of papers, tests, and other assignments were given promptly. (79.25%)
>
> Q3. The instructor makes me feel that I am part of the class and belong. (86.79%)
>
> Q4. The instructor is easily accessible. (84.91%)
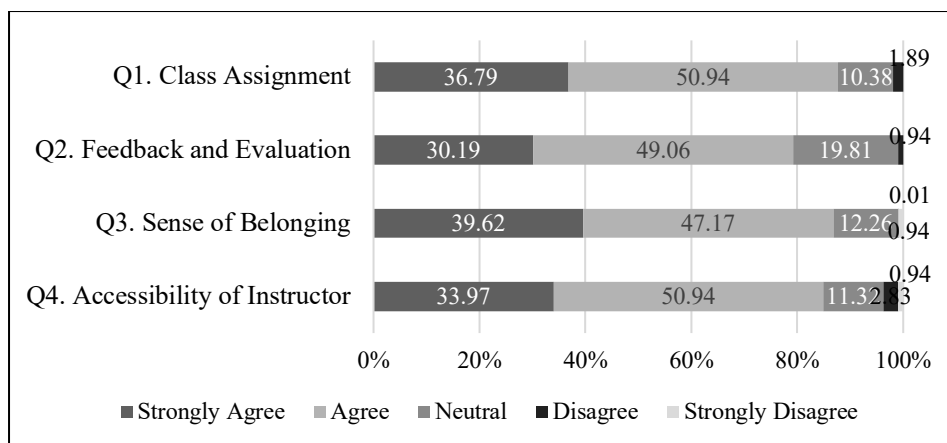
Figure 1. Summary of the Survey Data on the Accessibility of Instructors of An Online Interpreting Course

As shown in Q1 to Q4, respondents reported a high level of satisfaction on the subscale of instructors. They were satisfied with the instructor's class assignments, timely feedback, and evaluation. They were motivated to have a sense of belonging and were satisfied with the accessibility of instructors. Among all this cluster of questions, clear communication of class assignments and sense of belonging register the highest scores. In fact, compared to traditional face-to-face interpreting teaching, real-time online teaching makes the role of teachers much more salient. Teachers are positioned in the spotlight and become the natural focus of the attention of students who listen to and learn from them. Students can even capture the small gestures of teachers that they cannot in the face-to-face teaching mode due to the physical distance in the classroom. In this aspect, we can see that the instructor's teaching meets the expectations of students, and the instructor continues to play a key role in the emergent change of teaching modality.

Research question 2: How helpful are the functions of a video conference platform for learning? (Q5-Q12)

Technology provides channels for online teaching and learning. Effective online instruction partly depends upon the use of advanced technology tools/platforms (Sun & Chen, 2016). The survey questions under this research question pertain to the specific online platform the Institute uses for online teaching—Zoom. Some commonly used features for online interpreting classes, such as "breakout room" and "interpretation", are our major concerns.

All 8 items under this research question had a mean score at or above 3.80 (Table 2). Over 64.74% of the respondents strongly agreed or agreed with the following items:

Q5. I find "Share Screen" a satisfying tool for my interpreting learning. (78.30%)

Q6. I find "Share Audio" a satisfying tool for my interpreting learning. (71.70%)

Q7. I find "Breakout Room" a satisfying tool for my interpreting learning. (52.83%)

Q8. I find "Raise Hand" a satisfying tool for my interpreting learning. (52.83%)

Q9. I find "Chat" a satisfying tool for my interpreting learning. (74.53%)

Q10. I find "Interpretation" a satisfying tool for my interpreting learning. (57.55%)

Q11. I find "Turn on camera" a satisfying tool for my interpreting learning. (63.21%)

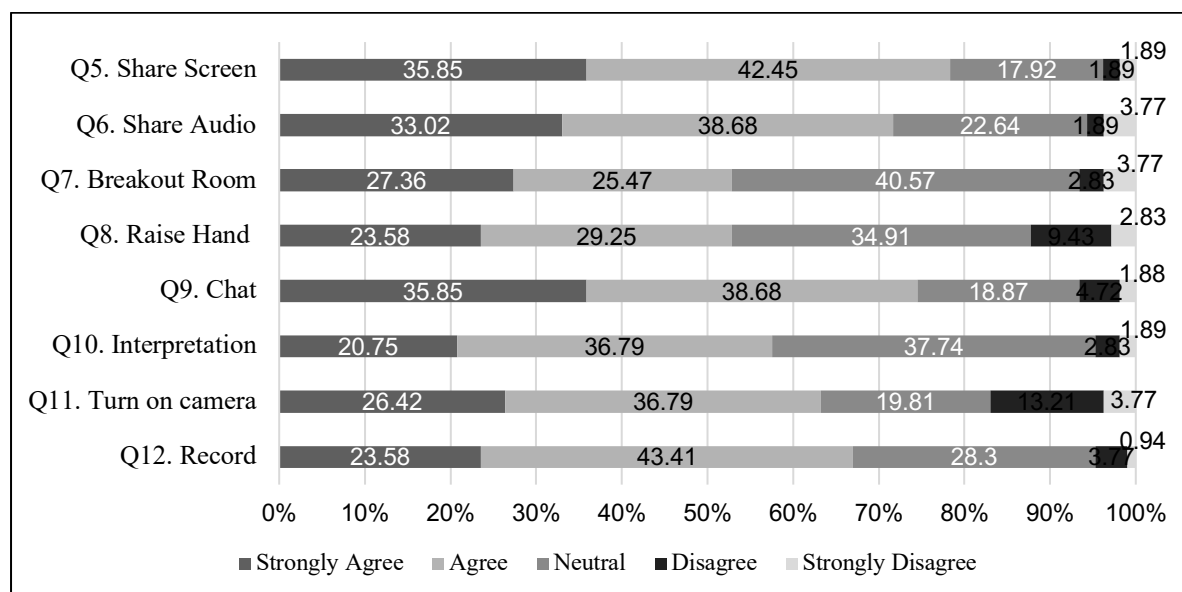Q12. I find "Record" a satisfying tool for my interpreting learning. (66.98%)

Figure 2. Summary of the Survey Data on the Helpfulness of the Functions of a Video Conference Platform for Learning.

Regarding the functions of a video conference platform for learning, the results are also positive (Q5-Q12). The majority of the respondents in this survey were young adults (85% under 30 years old), and they accepted the new functions of the online platform with overwhelming satisfaction. Among the 8 items, three of them ("breakout room", "interpretation" and "raise hand") registered a percentage slightly higher than 50%, and the rest ("share screen", "share audio", "chat", "turn on the camera", "record") registered a percentage over 60%. Since the survey was conducted in September 2021 at the beginning of the first semester of Academic Year 2021/2022, some of the interpreting functions have not been put in use. Respondents may have insufficient knowledge about these functions. For example, the "breakout room" and "interpretation" will be preferably used in triangulation training and simultaneous interpreting training. Nonetheless, the overall satisfaction rate is the second-highest.

Research question 3: How motivated are students to learn interpreting online? (Q13)

One of the biggest challenges that online learners face is a lack of motivation. Without their instructor's supervision or classmates' competition, they tend to lose interest in the course. Our survey question is related to students' level of self-directedness, which is affected by course setup, availability of teaching resources, and communication with instructors. Garrison (1997) describes self-directed learning as "an approach where learners are motivated to assume personal responsibility and collaborative control of the cognitive (self-monitoring) and contextual (self-management) processes in constructing and confirming meaningful and worthwhile learning outcomes." Online learners need to adapt to the new learning environment while staying motivated. As two of the factors affecting self-directedness, i.e., The availability of teaching resources and communication with instructors are more related directly to the following research questions: (1) How accessible are instructors of an online interpreting course? (4) Do students feel connected to others during online learning? To avoid duplication, only class setup is considered.

Q13. I am dissatisfied with the level of self-directedness I am given (24.52%).
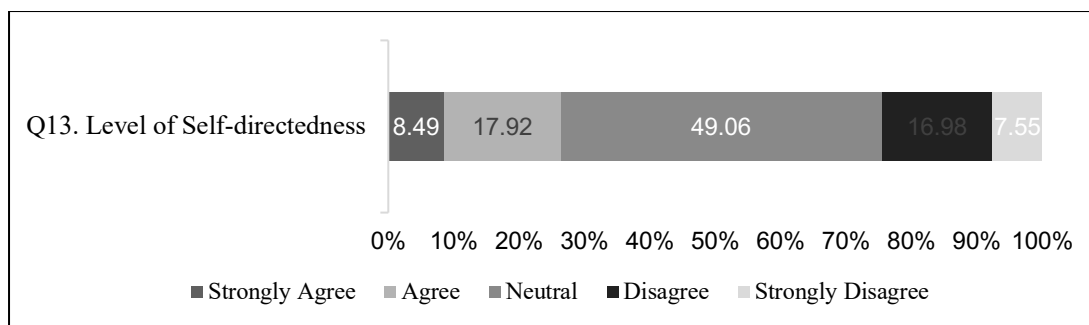
Figure 3 bar chart values: 8.49 | 17.92 | 49.06 | 16.98 | 7.55

Legend: ■ Strongly Agree ■ Agree ■ Neutral ■ Disagree ■ Strongly Disagree

Figure 3. Summary of the Survey Data on the Level of Motivation of Students to Learn Interpreting Online.

When asked about self-regulation and self-direction in online classes (Q13), the respondents gave the lowest scores. Half of them held neutral attitudes. The other half is evenly divided into two attitudes, either positive or negative toward their behaviors. It reveals that the students were still in an adjustment stage toward online teaching and learning mode, knowing not how to direct/regulate themselves to proactive learning. In fact, self-regulation or self-direction requires full engagement of learners, either with technology affordances or with adaptation efforts to the change of teaching and learning modality.

The item had a mean score of 2.97 (Table 2). Over 26.42% of the respondents strongly agreed or agreed with the following item, while over 24.52% of respondents strongly disagreed or disagreed with this item. Almost half of the respondents hold a neutral position (49.06%), which means that a large proportion of the students struggle to keep up with the progress of the interpreting class without the face-to-face instructions of the teachers. The result echoes one of the problems identified by Gao and Li's research (2021), which is self-regulation. Moreover, as 57.55% of the students had 0-1 years of interpreting learning experience, it was more challenging and uncertain for the beginners to pick up the new skill without instant feedback from the instructors compared with more experienced students.

Research question 4: Do students feel connected to others during online learning? (Q14-Q17)

Students tend to feel lonely during online classes because they are physically alone and have very limited interaction with their peers through online platforms. For interpreting classes, interaction with classmates is not only a way to do practice but also a way for self-evaluation and self-reflection. Interpreting class, therefore, is very interaction-demanding among all language courses. The questions were designed to investigate both the quality and quantity of interaction.

All 4 items had a mean score at or above 3.45 (Table 2). Over 50% of the respondents strongly agreed or agreed with the following items:

> Q14. I am satisfied with the quality of interaction between all involved parties. (62.26%)
>
> Q15. I am dissatisfied with the process of collaboration activities during the online learning module. (23.58%);
>
> Q16. I am satisfied with how much I could relate to the other students. (54.72%)
>
> Q17. I am satisfied with how comfortable with participating I became. (59.43%)
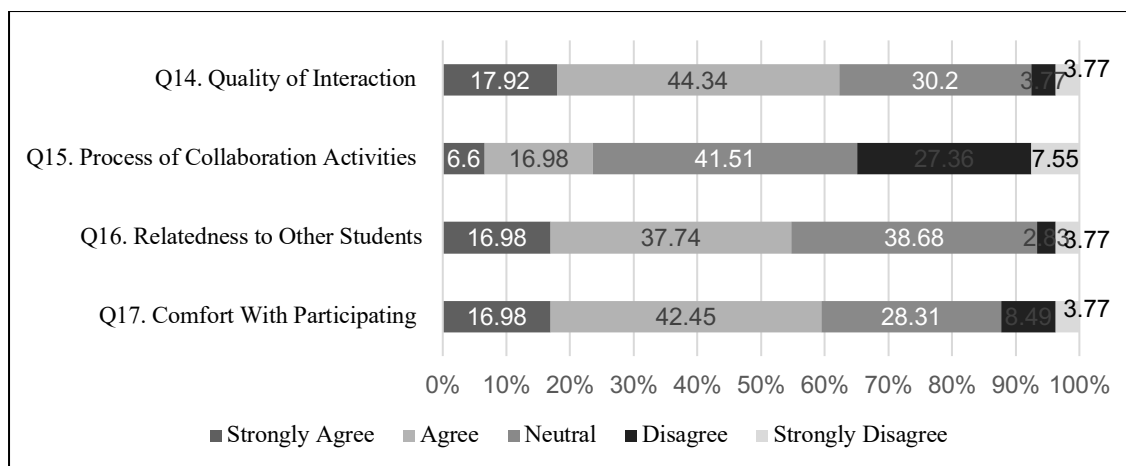
Figure 4. Summary of the Survey Data on Students' Connectivity to Others During Online Learning.

The respondents were satisfied with their interaction with their peers and instructor in general, as reflected in the results of Q14, Q16, and Q17. However, the statistics showed that only 34.91% of the respondents disagreed or strongly disagreed with the statement that they were dissatisfied with the process of collaboration activities during the online learning module. Under the subscale of interaction, three questions, namely, Q14, Q16, and Q17, are concerned about the overall impression of interaction, while Q15 is about the more concrete and technical aspect of it. Q15 might remind the respondents of the difficulties during their interaction with the class, such as failures to join a breakout room, to deliver voice or image to peers and instructors. These technical difficulties may lead to a sense of defeat in the respondents, although after the problem was solved, they still felt connected to the class.

Research question 5: Is online interpreting teaching effective? (Q18-Q21)

The effectiveness of online teaching can be evaluated from different aspects. Here, we attach importance to both the process (in-class performance and effort required) and the result (final grade and knowledge application). In this study, the process of interpreting teaching and learning mainly refers to what the students do in class and after class to enhance their interpreting skills. Students' self-evaluation of their performance in an interpreting class is usually based on their interaction with the instructor and the exercises that need to be completed in class. Since interpreting-related courses are practice-based, they require much practice and exercises after class. Therefore, students' effort after class is also an important factor in assessing the effectiveness of online teaching.

For the aspect of "result", we created Question 20, "I will be satisfied with my final grade in the online learning module," to assess effectiveness from students' subjective perspective. There are two reasons. First, the survey was conducted in September 2021, the beginning of Semester 1, Academic Year 2021-2022, and the final exams had not been held yet, so it is not possible to use the scores as an objective indicator of effectiveness. Second, as the focus of our study is the student "perception" of online interpreting teaching and learning, we consider it appropriate to use a subjective indicator for effectiveness. Therefore, the question is phrased as "I will be satisfied" to emphasize the expectation of their learning outcomes.

All 4 items had a mean score at or above 3.50 (Table 2). Over 54.01% of the respondents strongly agreed or agreed with the following items:

Q18. I am satisfied with the level of effort this online learning module needed. (61.32%);

Q19. I am dissatisfied with my performance in this online learning module. (38.68%)

Q20. I will be satisfied with my final grade in the online learning module. (48.11%)

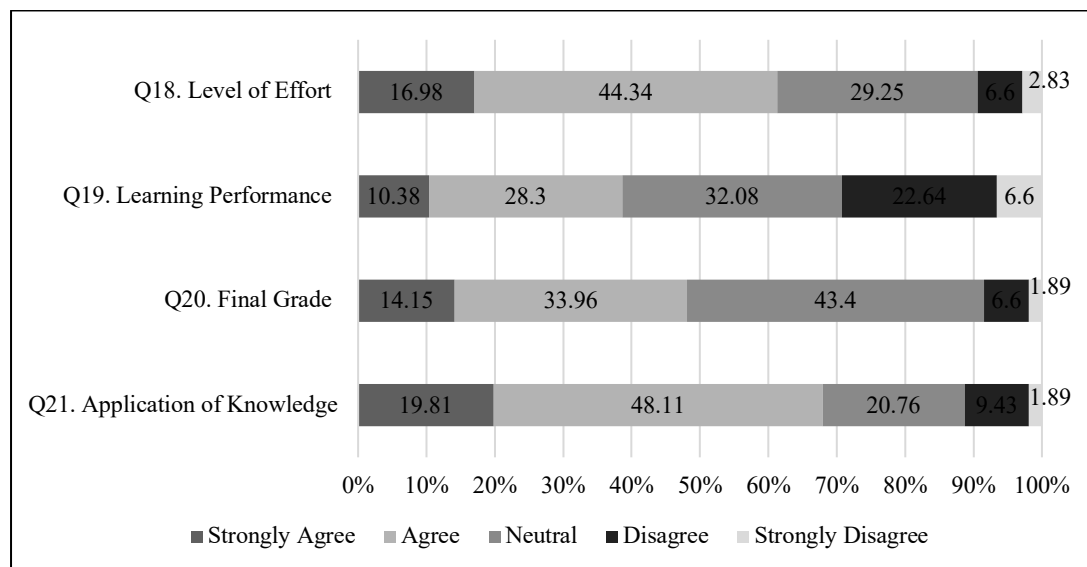Q21. I am satisfied with how I am able to apply what I have learned in this online learning module. (67.92%)

Figure 5. Summary of the Survey Data on the Effectiveness of Online Interpreting Learning.

Under the subscale of outcomes, more than 60% of the respondents were satisfied with the level of effort required (Q18) and their application ability (Q21), yet they did not show the same confidence in their class performance (Q19) or final grade (Q20). This could be explained by uncertainty avoidance (UA), proposed by Hofstede (1986) in a four-dimensional model of cultural differences, which means the degree to which the individuals of a culture feel threatened by uncertain or unknown situations. Individuals from a culture with high UA are uneasy with unstructured ideas and situations. The tendency of UA in Eastern cultures has been found in online learning environments (Ku & Lohr, 2003). The students' performance and final grade should be regarded as elements of uncertainty in our context, as all the respondents are Chinese and they could only be judged by their instructors but not by themselves. Their tendency of UA is vividly reflected in the results of Q19 and Q20.

Research question 6: Are students satisfied with online interpreting learning in general? If not, why? (Q22-Q25)

This part investigates the overall evaluation of online interpreting classes. Although the judgment is presumably based on the feedback of questions 1-21, the overall satisfaction level might not be in strict accordance with the result of each item given the complexity of online interpreting teaching. We are also interested in their follow-up action, i.e., Whether they will recommend the module to others and whether they will enroll in another similar module, both of which will be extremely helpful for education administrators for decision making.

All the items under this research question had a mean score at or above 3.45 (Table 2). Over 52.83% of the respondents strongly agreed or agreed with the following items:

Q22. I am satisfied enough with this online learning module to recommend it to others. (57.55%)

Q23. Compared to other learning module settings, I am less satisfied with this learning experience. (42.45%)

Q24. My level of satisfaction in this learning module would encourage me to enroll in another learning module in this setting. (46.23%)

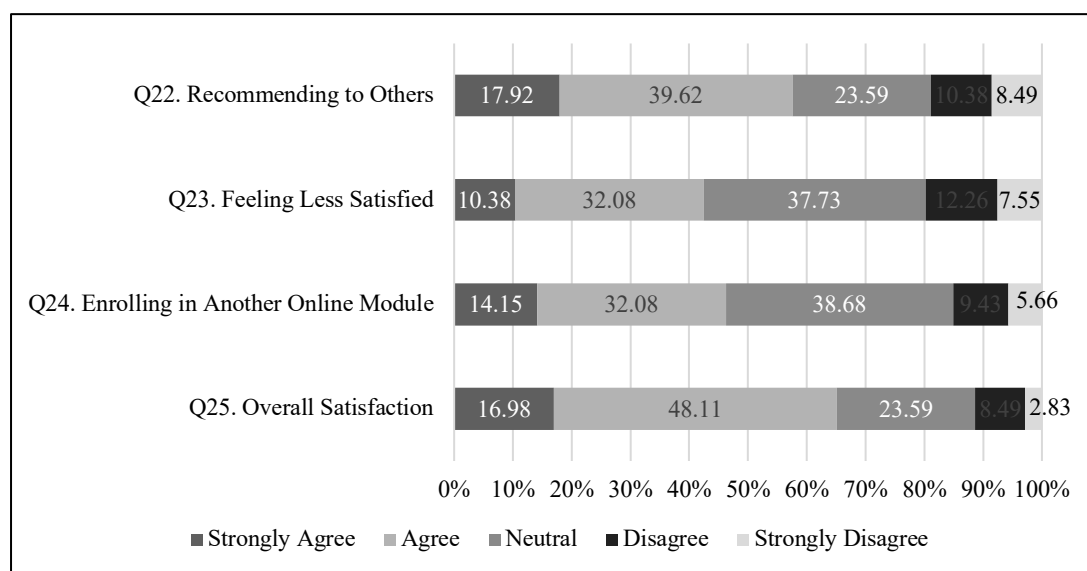Q25. Overall, I am satisfied with this learning module. (65.09%)

Figure 6. Summary of the Survey Data on Students' Satisfaction with Online Interpreting Learning.

Under the subscale of overall satisfaction, the results show that most of the respondents were satisfied with online interpreting learning, which indicates that the practice has been successful at MPI and the instructors have implemented their teaching plan as expected. However, in comparison with other courses of the programs in this survey, such as History of the English Language, Survey of British Culture and Commercial Translation, satisfaction with interpreting learning online is less noticeable. Rasheed et al. (2020) identified two main challenges students face in the online component of blended learning: self-regulation and the use of technology for studying. Gao and Li's research (2021) also shows that lack of self-control and technical problems are considered to be the prominent problems for online language teaching. Interpreting learning requires more self-control than other language courses, as students are asked to interpret practice frequently during class, yet instructors can only monitor the performance of a couple of students each time. Moreover, online interpreting teaching and learning requires more functions of a platform than other normal language courses, which accordingly makes the learning process more technology-demanding.

The data analysis revealed doubts and uncertainties concerning the online interpretation of teaching and learning experiences. Some interesting patterns were also detected in this online survey.

The Two Open-ended Questions:

Table 3. Sample Responses from Students to Open Question 1

Category	Sample Responses from Students to Open Question 1
Course Setup	"Take a break during the whole online class."
	"It would be better to review the online performance if the online class could be recorded and accessible to students.
	"Separating practice to different levels of students since not everyone is at the same one."
	"It is very uncomfortable to have class online personally, the suggestion is divide class to smaller unit to let every student have time to participate."
	"Because there are many exercises during the class for training the students interpretation skill. However, one of the class is only 2 hours which is not enough. Therefore, suggest to have 3 hours in each class."
	"We can set more practice after class so that we can solid what we have learn."
	"It is necessary to think and study how to combine physical interpreting facilities, for example, interpreting cabin rooms, with online interpreting tools, namely, zoom, to provide a class highly effective joining online and offline resources."
	"I hope to adjust the time of the online class because students need time to prepare the hardware needed for the class after they go home."
Instructor	"Professors should check the text box more often if some students have malfunctioned microphone/camera and/or bad internet connection."
Technology	"I think it can optimize the chat room function, because every time you come out of the breakout room and then go in, the chat history is gone."
	"Sometimes when teachers share a video, the voice cannot be heard."
	"If the class do not end for 40 minutes via license issue would be great."
	"It is necessary to study or develop a function in zoom or other online interpreting tools that can create 2 channels of voice, one for listening to the materials, other for communication in class."
	"Online interpreting class should use a more efficient way of playing or recording sound. Ordinary zoom class is easy to waste more time due to other network technical problems."
	"Sound quality can be better when doing spot dictation as we truly cannot listen clearly sometimes. However, it is understandable due to this special pandemic."
	"The Chatbox feature still needs to be improved, as sometimes the chat record disappears due to disconnection or re-entry into the class."
	"I think the share audio can improve."
	"Make sure the hardware is working before having online class."
	"Network problems sometimes causes lagging and it is hard for everyone to give feedbacks as the interpretation will then not be one performance as a whole. Affects both ways (giving and receiving comments)."
	"There is a need to study the development of a feature in Zoom or other online interpretation tools that can create two voice channels, one for listening and the other for classroom communication"
Overall	"It is too much difficult to online interpreting class."

The open-ended questions were revealing. They are: 1) Do you have any suggestions to improve the online interpreting class? Please specify. 2) Do you have any other comments on your online interpreting experience? Please specify. Among 106 respondents, 39 commented on the first question, while 29 gave opinions to the second question. The answers to these two questions have been summarized in Table 3 and Table 4 into several categories corresponding to the subscales, using the students' original words. These two questions were designed to collect information that is not reflected in the 25 questions under 6. In terms of course setup, students made suggestions on the duration of teaching hours and assignment, such as extending the 2-hour class to 3 hours, adjusting the time of online class to allow students more time to prepare the hardware needed for the class after they get home from work, and providing more practice after class for students to consolidate what they have learned."

Table 4. Sample Responses from Students to Open Question 4

Category	Sample responses from students to Open Question 2
Instructor	"I love my online interpreting classes given by Professora Margarida, she is a so professional interpreter while a so patient teacher. I am very appreciated to be her student this year." "The tutor can give us the way of training Interpretation, including memory exercises and reading news, among others."
Technology	"When I took the online course in dorm at the very beginning, the Net was not stable. However, after the recondition, the net turned normal. So in general, it was not a bad experience." "If possible, I would like to recommend to create a common-edit space where students can upload self-produced audio material for interpreting exercise." "The network is not accessible, I think it is hard for teacher to listen what I said." "We cannot hear the sound of the instructor for twice." "The network is a problem and sometimes the microphone doesn't work."
Interaction	"We get less interaction during online interpreting class." "Would love to do some discussions where non-native speakers (Chinese/English) are involved and real time interpretation is needed." "I would like to create a space that allows "co-editing" so that students can upload homemade audio materials for interpreting practice." "Sometimes I cannot see my audience, because many people are ashamed to put their full face in front of the camera during online classes, and many students just show a pair of eyes or even just their foreheads. So when I was translating, I could not see the feedback from the "audience" to me, and sometimes I did not know whether I was able to understand my expression. However, overall, this experience is still very interesting and left a deep impression on me."
Overall	"I'm satisfied with this experience. The professor is responsible and super helpful to us." "I like online class." "Very good" "Great experience" "Thus far so good" "Good." "Interesting and useful. I value the experience that we have online courses." "I do not think online teaching is as good as face-to-face teaching..." "Better not to have online class if the pandemic risk is low." "I hate it. " "Online classes are not as good as offline classes."

One emerging theme pertained to technology. Over half of the respondents were strongly satisfied or satisfied with the technology affordances. Although it is an abrupt switch of teaching mode, students of the younger generation are easily adapted to the new functions of the online platform. Some individuals commented about the platform's functions: "There is a need to study the development of a feature in Zoom or other online interpretation tools that can

create two voice channels, one for listening and the other for classroom communication"; "The Chatbox feature still needs to be improved, as sometimes the chat record disappears due to disconnection or re-entry into the class (2 respondents)"; "I would like to create a space that allows "co-editing" so that students can upload homemade audio materials for interpreting practice."

Another aspect relating to the instructor is also revealing. Students commented about the instructor's timely feedback and responses to questions, helpfulness, supportiveness, and openness. Respondents indicated that the instructor motivated and encouraged them throughout the course. Two respondents attributed their satisfaction with online interpreting teaching to the instructors: "The online class was interesting due to the teacher's excellent teaching (2 respondents)." Meanwhile, three provided their suggestions for the teaching and learning experiences: "The instructors should divide the difficulty of the exercises according to the different levels of students" and "I hope the teacher can cite more examples and give more time to think." Although these comments are not directly connected with online teaching and learning, the comments of students show their confidence in instructors as well as their attitudes toward teaching methods, which constitute topics of other studies.

Additionally, anxiety is another issue raised in this inquiry, especially in relation to the technical problems and some emotional uncomfortableness aroused from the technical problems, which can be considered side effects of the sudden shift to the online interpreting teaching and learning mode. For example, some students commented, "It is very uncomfortable to have a class online personally, the suggestion is to divide class to a smaller unit to let every student have time to participate." "Online interpreting class should use a more efficient way of playing or recording sound. Ordinary zoom class is easy to waste more time due to other network technical problems." "It's too much difficult to (do) online interpreting class." Although students did not specify the concrete uncomfortableness or specific difficulties, they showed their emotional anxieties in relation to class efficiency and participation, which might compromise their interpreting exercise performance.

Implications and Conclusion

With the positive results that we obtained from the survey, we are confident that we can make use of the advantages arising from online teaching and learning and further explore the user-friendly functions of online conference platforms, which will certainly offer learners diversified options for learning modalities.

To further improve the design of online interpreting teaching and learning, we can develop these technology-driven advantages in three stages: preparation, implementation, and reflection (self-reflection or group reflection). In terms of preparation, the computer skills of the instructors need to be enhanced, such as computer-aided interpreting and equipment upgrading; in the process of class training, functions of online platforms should be further explored, such as the use of breakout room (for the purpose of triangulation exercise as well as handover), recording of performance and screen-sharing; in the reflection stage, the recordings of students' performance may be used by students for group evaluation, self-regulation, and self-direction.

In addition to these pedagogical implications, we also need to look into the side effects of online interpreting teaching and learning that might compromise learners' performance, although in this inquiry, these side effects are shown. As AIIC points out, "Remote interpreting

with a reduced quality and quantity of relevant sensory inputs increases the cognitive load on the interpreter and can be a source of additional stress and fatigue" (AIIC, 2021). In interpreter training, such situations should be leveraged with adapted training methods, since the same concern is also reflected in the survey in the open-ended questions, mentioning the individual anxiety aroused in dealing with online operations.

In conclusion, the results of the research indicated that the move to online interpreting teaching and learning did not have a significant impact on the student's satisfaction with the class as a whole compared with other modes of language learning, e.g., face-to-face and blended learning modes. However, some of them did express their frustration due to insufficient computer skills, which in turn challenges self-direction and self-regulation to a large extent in online pedagogy. In addition, the instability of the internet also contributes to individuals' biased perception about online pedagogy. Nonetheless, taking into account both the innovative resources that online platforms afford and the new normal in the interpreting service market, we end our paper by proposing a mixed mode of interpreting teaching and learning, augmented by online mode or by face-to-face pedagogy. This blended approach develops methodological innovation, which is crucial to the advancement of interpreting pedagogy toward a well-developed discipline.

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References

Adnan, M., & Anwar, K. (2020). Online learning amid the COVID-19 pandemic: Students' perspectives. *Journal of Pedagogical Sociology and Psychology, 2*(1), 45-51.

AIIC interpreter checklist – Performing remote interpreting assignments from home in extremis during the Covid-19 Pandemic. (2020). Retrieved October 24, 2021, from https://aiic.ch/wp-content/uploads/2020/05/aiic-interpreter-checklist.pdf

Bolliger, D. U., & Halupa, C. (2012). Student perceptions of satisfaction and anxiety in an online doctoral program. *Distance Education, 33*(1), 81–98. https://doi.org/10.1080/01587919.2012.667961

Bolliger, D. U., & Martindale, T. (2004). Key factors for determining student satisfaction in online courses. *International Journal on E-Learning, 3*(1), 61–67.

Braun, S. (2015). The remote interpreting. In H. Mikkelson & R. Jourdenais (Eds.), *The Routledge Handbook of Interpreting*. London & New York: Routledge.

Carr, S. E., & Steyn, D. (2000). Distance education training for interpreters. An insurmountable oxymoron. In R. P. Roberts, S.E. Carr, D. Abraham & A. Dufour (Eds.), *The Critical Link 2.* (p. 83). Amsterdam: John Benjamins.

Carrillo, C., & Flores, M. A. (2020). COVID-19 and teacher education: A literature review of online teaching and learning practices. *European Journal of Teacher Education, 43*(4), 466-487. https://doi.org/10.1080/02619768.2020.1821184

Gao, J., & Li, C. N. (2021). Case study of multi-platform collaborative ICT integrated online language teaching during the pandemic: Advantages and challenges. *Applied Linguistics Research Journal, 5*(5), 221-232.

Garrison, D. R. (1997). Self-directed learning: Toward a comprehensive model. *Adult Education Quarterly, 48*(1), 18-33. https://doi.org/10.1177/074171369704800103

Güven, M. (2014). Distance learning as an effective tool for medical interpreting training in Turkey. *Open Learning: The Journal of Open, Distance and e-Learning, 29*(2), 116-130. https://doi.org/10.1080/02680513.2014.964196

Hickey, S. (2021). Technological novelties and innovation in remote interpreting. Retrieved September 30, 2021, from https://www.nimdzi.com/innovation-remote-interpreting/

Hofstede, G. (1986). Cultural differences in teaching and learning. *International Journal of Intercultural Relations, 10*(3), 301-320. https://doi.org/10.1016/0147-1767(86)90015-5

Ko, L. (2008). Teaching interpreting by distance mode: An empirical study. *Meta, 53*(4), 814–840. https://doi.org/10.7202/019649ar

Ku, H., & Lohr, L. L. (2003). A case study of Chinese students' attitude toward their first online learning experience. *Education Technology Research and Development, 51*(3), 94-102.

Liaw, S. (2008). Investigating students' perceived satisfaction, behavioral intention, and effectiveness of e-learning: A case study of the Blackboard system. *Computers & Education, 51*(2), 864–873. https://doi.org/10.1016/j.compedu.2007.09.005

Mailizar, Almanthari, A., Maulina, S., & Bruce, S. (2020). Secondary school mathematics teachers' views on e-learning implementation barriers during the Covid-19 pandemic:

The case of Indonesia. *Eurasia Journal of Mathematics, Science and Technology Education, 16*(7), em1860. https://doi.org/10.29333/ejmste/8240

Rasheed, R. A., Kamsin, A., & Abdullah, N. A. (2020). Challenges in the online component of blended learning: A systematic review. *Computers & Education*, *144*(1), 103-701. https://doi.org/10.1016/j.compedu.2019.103701

Sun, A., & Chen, X. (2016). Online education and its effective practice: A research review. *Journal of Information Technology Education, 15*, 157-190. https://doi.org/10.28945/3502

Vereycken, H. (2012). *Remote interpreting: The council experience.* Paper presented at the 16th SCIC Universities Conference, Brussels, Belgium.

Wang, X. M., & Wang, B. H. (2021). New trends in the interpretation industry: Mainstream platforms and technologies for remote conference interpreting. *Chinese Translators Journal*, *5*, 105-112.

Appendix

Survey about students' perceptions of online interpreting teaching and learning via an online platform

1. Class assignments were clearly communicated to me.
2. Feedback and evaluation of papers, tests, and other assignments was given in a timely manner.
3. The instructor makes me feel that I am part of the class and belong.
4. The instructor is easily accessible on Zoom.
5. I find "Share Screen" a satisfying tool for my interpreting learning.
6. I find "Share Audio" a satisfying tool for my interpreting learning.
7. I find "Breakout Room" a satisfying tool for my interpreting learning.
8. I find "Raise Hand" a satisfying tool for my interpreting learning.
9. I find "Chat" a satisfying tool for my interpreting learning.
10. I find "Interpretation" a satisfying tool for my interpreting learning.
11. I find "Turn on camera" a satisfying tool for my interpreting learning.
12. I find "Record" a satisfying tool for my interpreting learning.
13. I am dissatisfied with the level of self-directedness I am given.
14. I am satisfied with the quality of interaction between all involved parties.
15. I am dissatisfied with the process of collaboration activities during the online learning module.
16. I am satisfied with how much I could relate to the other students.
17. I am satisfied with how comfortable with participating I became.
18. I am satisfied with the level of effort this online learning module needed.
19. I am dissatisfied with my performance in this online learning module.
20. I will be satisfied with my final grade in the online learning module.
21. I am satisfied with how I am able to apply what I have learned in this online learning module.
22. I am satisfied enough with this online learning module to recommend it to others.
23. Compared to other learning module settings, I am less satisfied with this learning experience.
24. My level of satisfaction in this learning module would encourage me to enroll in another learning module in this setting.
25. Overall, I am satisfied with this learning module.

Two open-ended questions:
1) Do you have any suggestions to improve the online interpreting class? Please specify.
2) Do you have any other comments on your online interpreting experience? Please specify.