Interaction and Learner Satisfaction: Examining Their Dynamics in an Online Sight Translation Course

Karen Chung-chien Chang

With the continuous impact brought by COVID-19, the educational field has witnessed the surge in distance learning. Although the majority of schools in many countries have resumed traditional classroom teaching/learning, most teachers are required to cultivate the readiness for teaching online. In the past three years, the schools at different levels in Taiwan have faced the challenges brought by the switch to distance learning. For Translation and Interpretation (T&I) courses, which typically are conducted face-to-face and put emphases on in-class practice and instant teacher feedback, the switch to online instruction brought challenges and much adjustment. This study, focusing on a synchronously-taught Sight Translation course, investigated how the students evaluated the aspects of course interaction and learning satisfaction. The findings have indicated that all three types of interaction were significantly correlated to students' course satisfaction. The highest correlation of 0.851 was found between satisfaction and learner-content interaction. In addition, a correlation of 0.754 was found between satisfaction and learner-instructor interaction, followed by a correlation of 0.523 between satisfaction and learner-learner interaction. Such results have reinforced the importance of quality online instructional content with many details planned accordingly. Moreover, as a Sight Translation course places a high priority on students' pair practices, the level of learner-learner interaction was perceived as high and positive, contributing to its significance in student satisfaction.

Keywords: interaction, types of interaction, learner satisfaction, sight translation

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「視譯」課程線上授課方式：
檢視互動及學習者滿意度之間的關係

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因著新冠疫情的持續衝擊，教育界面臨了遠距教學的快速發展。儘管許多國家的學校皆已恢復傳統實體教學，教師仍被要求須具備遠距教學知能。過去三年中，臺灣各級學校都面臨了遠距教學的挑戰。對口筆譯課程來說，一直以來多採用實體教學、強調課堂練習與教師即時回饋。因此，當轉到遠距上課模式時，自然面臨許多挑戰及調整。此研究以線上同步「視譯」課程為研究場域，檢視學生對於課程互動及學習滿意度的評量。研究結果顯示：在課程的三種互動與學生課程滿意度之間，均存在顯著關聯，其中最強關聯（0.851）在於「學習者─課程內容互動」和學生學習滿意度之間，凸顯了教材與使用難易對於學習的影響；此外，「學習者─授課教師互動」和學習滿意度的相互關聯為 0.754、「學習者─學習者互動」和學習滿意度的相互關聯為 0.523。從這些結果可以看出，線上教學內容的品質與課程設計的諸多細節間，關聯非常緊密。對於重視學習者互動、練習的「視譯」課程來說，在線上教學的環境中，學習者自評結果顯示他們認為這種互動非常重要，更對他們的課程學習滿意度有著重要影響。

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Introduction

In the past three years, with COVID-19 raging throughout the world, the educational field has experienced much impact. Initially, schools were closed and all courses were switched to the distance teaching/learning mode. Later, as people gradually learned to protect themselves and different measures were put into practice, face-to-face instruction resumed. However, at times, when the number of COVID-confirmed cases increased sharply, course instructional formats altered, mostly from the face-to-face mode to the online one. Take Taiwan for example. In both 2021 and 2022, Taiwanese students keenly experienced the changes brought by distance learning. Despite the gradual adaptation to this new norm, the concerns over students' learning outcomes and effectiveness continue to linger.

Translation and interpretation (T&I) courses have always placed a great emphasis on the critique of produced renditions and the provision of timely feedback. These features, especially the latter, are even more important in interpreting courses. Students learning interpreting are expected to maintain a high level of attentiveness during class, so they can process the received information in their heads and quickly present the messages in the target language. Furthermore, as interpreting renditions are produced orally, such messages lapse quite fast. Consequently, not only do the critique and feedback have to be provided immediately, but student-interpreters must be highly concentrated. With these features, it is more ideal for interpreting courses to be carried out in the face-to-face format. However, facing the needs for distance teaching/learning in these three years, interpreting teachers have had to reconsider how to organize and deliver online courses with effective training outcomes.

Among T&I studies, little attention has been given to the exploration of teaching/learning effectiveness for courses delivered online (Colina & Angelelli,

2016; Hubscher-Davidson & Devaux, 2021). Moreover, before COVID-19 impacted course delivery modes, scarcely had there been any study focusing on investigating the relationships between different types of interaction and learner satisfaction in a synchronous, online interpreting course.[1] This study took Sight Translation (ST) and examined how its course design, especially the measures for enhancing interaction, affected student satisfaction as well as what elements contributed to course success and learner satisfaction.

Literature Review

In their efforts to identify the elements contributing to potential success of an online course, researchers have found the satisfaction from students' course-taking experience to be an extremely important indicator. Moreover, in response to the criticism that online learning often lacks interaction and this deficiency frequently leads to inactive learners and high drop-out rates, many studies have investigated learner satisfaction in online courses and identified interaction as one major factor (Cole et al., 2014). Furthermore, many research findings have shown when a learning environment encourages more communication, the students in that learning setting tend to demonstrate improved learning outcomes and increased learning success (Bernard et al., 2009; Bernard et al., 2014; Borup et al., 2012; Garrison & Cleveland-Innes, 2005). As this study aimed at investigating the element of interaction in an online ST course and its learner satisfaction, this literature review focuses on the studies that investigated learner satisfaction and the interaction theory (covering three different types of interaction) in distance learning.

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[1] In this study, "online course" and "distance-learning course" are used interchangeably, as they share the feature of not being carried out in a physical classroom with face-to-face interaction between/among participants (teacher and classmates included).

Learner Satisfaction in Online Courses

In both traditional and online education, satisfaction remains an influential factor in students' course-taking experience. Satisfaction can be explained as the extent to which students have enjoyed their studies (Bedggood & Donovan, 2012; J. C. Moore, 2011). Moreover, when feeling positive about their academic performances, students obtain a sense of achievement, perceive learning as valuable, and experience satisfaction (Bolliger & Erichsen, 2013; Douglas et al., 2012). For this reason, much research effort has been made in identifying the connections between learner satisfaction and other factors, like course design effectiveness, instructor's competence, motivation, interaction, and perceived learning (Kumar et al., 2021; Pangarso & Setyorini, 2023; Ranadewa et al., 2021; Thanasi-Boçe, 2021). Previously, research findings showed that students' course-taking satisfaction was strongly linked to their academic success (S. H. Chang & Smith, 2008; Noel-Levitz, 2011), positive program-related and student-related outcomes (Duque, 2014; Liao & Hsieh, 2011), and lower drop-out rates and greater commitment to the program (Ali & Ahmad, 2011; Noel-Levitz, 2011; Reinhart & Schneider, 2001; Yukselturk & Yildirim, 2008).

During the past three years, due to the disruption brought by COVID-19, the educational field has witnessed a surge of emergency remote teaching (ERT), the type of online learning adopted to address the switch from face-to-face teaching/ learning to distance learning (synchronous or asynchronous) during the pandemic (Hodges et al., 2020). Along with this instructional format change, much research effort was invested into the exploration and investigation of learner satisfaction. Almusharraf and Khahro (2020) conducted a study on 283 Saudi Arabian students to evaluate their satisfaction with online learning platforms and learning experiences during the COVID-19 pandemic. Their findings revealed the

participating students rated Google Handouts as the most favored lecture delivery platform and acknowledged its usefulness for both course management and learning assessment. In addition, Baber's (2020) cross-country study, covering a combined 100 learners in South Korea and India, investigated the factors determining learners' perceived learning outcomes and satisfaction. The results showed all four factors, including interaction in virtual classrooms, students' motivation, course structure, and instructor knowledge as well as facilitation, cast positive influences on students' perceived learning and further led to student satisfaction. Yet, this researcher's findings about interaction mainly focused on learner-instructor interaction (LII).

Then, from 2021 to 2023, several studies further examined how different course factors affected student satisfaction. Thanasi-Boçe (2021) gathered data from 478 Albanian university students to examine how three factors (the role of instructor, motivation, and interaction) affected these students' perception and satisfaction of online learning. The findings indicated all three factors contributed to the students' positive perception of online learning, a result further generating great student satisfaction. In addition, Kumar et al. (2021) examined the relationship between e-learning quality and learner satisfaction with the responses from 435 Indian university students. The study established statistically significant relationships between e-learning content and the students' perceived e-learning quality as well as between students' perceived e-learning quality and learning satisfaction. Moreover, Wu et al. (2021) examined how Chinese students' learning strategies and academic emotions affected their learning satisfaction. Their findings pointed out the students who employed more learning strategies tended to stimulate more positive emotions, resulting in higher learning satisfaction. Also, aiming to find out what factors impacted learner satisfaction and commitment towards online learning during the pandemic, Ranadewa et al. (2021) reviewed 40 empirical

studies and concluded accessibility, technological skills, learners' mental well-being, and lecturer commitment as influential factors. Pangarso and Setyorini (2023) tapped into the factors that drove e-learning satisfaction during the COVID-19 pandemic. The survey results from 722 students in an Indonesian university indicated social presence, expectation confirmation, and learner-learner interaction (LLI) as the key drivers for student satisfaction in e-learning. What these studies have confirmed is that multiple factors bear the potential to influence student satisfaction in online learning. Furthermore, all these developments have contributed to the conclusion drawn by the Online Learning Consortium (2022) in listing student satisfaction as one of its Five Pillars of Quality Online Education, explaining that "Student satisfaction reflects the effectiveness of all aspects of the educational experience" (para. 6). Yet, despite the recognized importance of this affective variable, how to measure this phenomenon remains a challenge.

Different Types of Interaction in Course Learning

On the importance of interaction, most researchers and educators recognize that this element is closely linked to teaching/learning quality and effectiveness. However, due to technological constraints, interaction in online learning settings was previously underachieved (Downing et al., 2007), causing its significance to be overlooked in the literature of distance education (Bernard et al., 2009). Yet, during the past two decades, this phenomenon has gathered much research interest. Some studies have established significant connections between interaction and the quality/effectiveness of online learning (Han & Johnson, 2012; Lee, 2012; Nandi et al., 2012), interaction and online collaborative learning (Kim & Lee, 2012) as well as interaction and online learning satisfaction/outcomes (Baber, 2020).

Many studies on interaction have borrowed the framework proposed by M. G. Moore (1989). M. G. Moore's (1989) three types of interaction cover the learner-

instructor, learner-learner, and learner-content aspects. When applied to an online course, the first two types of interaction focus on those involved in such a course. LII refers to the communication taking place between the course-taking participants and the instructor (M. G. Moore & Kearsley, 1996). This type of interaction can occur through a variety of channels, ranging from email correspondence, to online discussion forums, to other interactive applications adopted for online instruction. Next, LLI describes the communication between/among the learners in a distance-learning community. These learners discuss the introduced concepts and exchange their thoughts/views on the to-be-acquired concepts (Anderson, 2003). Last, learner-content interaction (LCI) is found between learners and course content, covering handouts, related files, discussions, and assignments. Although this form of interaction often flows in a one-way direction from the subject matter to learners, many research findings (provided later) have attested to its crucial role in generating positive learning outcomes. In an online environment, these three types of interaction coexist and affect one's learning outcomes differently, making them crucial aspects that warrant attention.

Previous studies have revealed different relationships between these three types of interaction and students' learning satisfaction. Among the three aspects of interaction, many studies have concluded that LII and LCI bear more importance in shaping learner satisfaction. To begin with, on the research findings of LII and satisfaction, quite a few studies have generated encouraging results. Burnett et al. (2007) examined different dimensions of interaction to determine which contributed to student satisfaction in web-supported courses. Through analyzing chat logs, discussion board postings, and student interviews, these researchers concluded the impact of LII on student satisfaction highly depended on both the intensity and frequency in which such interaction occurred. Then, in their study focusing on Turkish learners, Yukselturk and Yildirim (2008) found that LII was

positively related to student satisfaction and the students showed appreciation for the effort and reachability of the instructors during the semesters. Furthermore, Abdous and Yen (2010) conducted their study on 490 university students in the United States to explore how the students interacted with their teachers in three different course delivery modes: face-to-face, satellite broadcasting, and live video-streaming. Their findings indicated the level of self-perceived LII was quite similar across the three groups of students; however, one major finding showed a positive correlation between the students' self-perceived LII and their learning satisfaction level. In addition, in the study of Johnson et al. (2014), two instructional modes, face-to-face and online instruction, were compared. It was confirmed that, in both scenarios, LII exerted a significant and favorable effect on student satisfaction with the course. Also, covering two online courses with different levels of interaction, the study of Turley and Graham (2019) indicated the students in the teacher-led model (with high LCI and LII) reported significantly positive results in *Timely Instructor Response Time*, *Meaningful Instructor Feedback*, and *Instructor Rating*. More recently, Baber (2020) and Ayanbode et al. (2022) found LII exerted the strongest influence on student satisfaction. As teachers play a key role in all instructional formats and settings, the above findings have reinforced the importance for teachers to adopt interaction-enhancing measures in their instruction.

Apart from LII, LCI has received increased attention for its significant influence on student satisfaction in online learning. For this part, the studies carried out in the past two decades are synthesized to provide a fuller picture on the significance of LCI in affecting learner satisfaction. To begin with, the meta-analysis conducted by Bernard et al. (2009) revealed although all three types of interaction were related to students' increased learning, LCI played the most significant role in affecting student satisfaction. Similarly, in the findings of Kuo et

al. (2014) and Bervell et al. (2019), LCI was found the strongest and most crucial indicator leading to student satisfaction. Then Gameel (2017) analyzed 1,786 students enrolled in four MOOCs and found "the learner perceived usefulness, teaching and learning aspects of the MOOC, and learner-content interaction" (p. 98) as important factors for satisfaction. In addition, Alqurashi (2019) explored how online learning self-efficacy, LCI, LII, and LLI predicted student satisfaction and perceived learning. In the analysis of 167 students' responses, all four factors were strongly predictive of student satisfaction and LCI was identified as the most critical predictor. Furthermore, Pham and Nguyen (2021) conducted their study in an online language learning course in Vietnam. In the examination of all three types of interaction in that learning setting, LCI was identified as the strongest predictor for student satisfaction. Last, Kumar et al. (2021) found the accessibility levels of learning content and website content provided in online courses were important factors in the students' evaluation of e-learning quality and their course satisfaction levels. These findings have further attested to the importance that the learning materials and activities for an online course must be closely related to the course learning goals, meet students' expectations, and demonstrate a high level of accessibility.

While both LII and LCI were found to be significantly associated with student satisfaction, the relationship between LLI and student satisfaction was less consistent. Several studies discovered that LLI exerted a negative impact on student satisfaction, whereas other studies found LLI a significant factor in student satisfaction. For the former, Bray et al. (2008) found when learners were required to engage in too much collaborative work, their satisfaction could be negatively impacted. Moreover, Johnson et al. (2014) found that LLI held a negative impact on student satisfaction because the students perceived a lack of warmth and competence from their peers. In addition, some studies have shown that LLI failed

to be predictive of student satisfaction in online settings because students did not have many opportunities to communicate with their peers (Alqurashi, 2019; Kuo et al., 2013). For the latter, other studies revealed the opposite results and supported a positive link between LLI and student satisfaction. Zhu (2011) examined two groups of students, one in China and the other in Belgium, to see how online collaborative learning affected the students' satisfaction and performance. Despite some cultural differences, both groups acknowledged online collaborative learning was beneficial for gaining more knowledge. Moreover, both groups showed similar satisfaction levels with peer interaction. Furthermore, Kurucay and Inan (2017) conducted their study in one online course to examine the effects of LLI on students' perceived learning and satisfaction. Their findings indicated the interaction between learners was an important factor for student satisfaction. In addition, using an online survey, She et al. (2021) gathered 1,504 Chinese students' responses and found a positive relationship between interaction and online learning satisfaction. Likewise, Pham and Nguyen (2021) concluded that LLI, following LCI, was the second strongest predictor of student satisfaction. A similar result showing the positive influence of LLI on learner satisfaction was found in the study of Pangarso and Setyorini (2023). From the mixed findings concluded by these past studies, more effort is clearly needed in devising interaction-promoting activities for learners and creating a communication-conducive online learning community.

Although this literature review has identified interaction as a key element in investigating learners' course-taking satisfaction, the past studies did not cover how this framework could be applied to the online instruction of interpretation-related courses. Facing the increased need for synchronous distance learning and the trend of exploring online learning, those in the teaching profession should better understand how to maximize the benefits brought by interaction. The ST course in this study is designed to foster high levels of LLI, LII, and LCI with different

measures and learning activities. This study aims to explore four questions. First, how did the students evaluate the different types of interaction (LLI, LII, and LCI) in this online ST course? Second, how did the students evaluate their satisfaction levels in this online ST course? Third, what relationships could be established between the three types of interaction and student satisfaction in this course? Last, what features in this online ST course contributed to student satisfaction?

The Study

This section consists of four parts. The first part, Participants, provides the information of the students taking this course. The details here cover their learning history in related translation-training courses. The second part covers Course Layout, with an emphasis placed on how a virtual classroom was managed, what adjustments were made in presenting the teaching materials, and how students' learning activities were carried out and evaluated. In addition, the third and fourth parts provide explanations on Data Collection Tools and Data Analyses.

Participants

This study covered 23 students who were mostly juniors at a foreign language department of a public university in Taiwan. The students were required to have completed an introductory course to translation before taking this ST course. Such a prerequisite stipulates a total of at least 72 hours of basic translation training covering both directions (from Mandarin Chinese to English and vice versa). These students completed the basic translation courses in their freshman year, but due to curricular changes in the department, they did not take further T&I courses until ST in their junior year. At the time when these students took this course, the course delivery format was impacted by the worsened COVID-19 development, resulting

in the course being delivered in an online, synchronous mode.

Course Layout

Although course delivery was switched to an online synchronous mode, its content remained the same as that of the traditional face-to-face ST course. In this section, four parts of the course design are elaborated: ST training scope and sequence, virtual classroom arrangement, learning material presentation and accessibility, and teacher-immediacy enhancement measures. Then some explanations of teaching/learning activities typical of an ST course are provided.

First, the planned course progress and selected materials were the same as those in the previous two semesters when the ST course was delivered face-to-face. This emphasis was to address the criticism related to the depth and scope of online courses. In this regard, the course instructor made specific effort in ensuring this online ST course covered the same scope, so the students would have the peace of mind that their learning would not be compromised due to the instructional format change. The course was organized to cover both English-to-Chinese and Chinese-to-English ST training, each for 18 hours and a total of 36 hours in ST skill acquisition and practice. Between the two directions, the course always started with the ST training into the learners' mother tongue, Mandarin Chinese. The course materials covered a wide range of short texts at an average length of 300 to 350 words. Next, for Chinese-to-English ST training, the learning focus was placed on analyzing the Chinese source text, making necessary adjustments (like paraphrasing or supplementing information), and choosing the suitable sentence patterns for target text delivery. The students were given one test at the end of the semester to examine their acquisition of ST skills.

Second, as this course was delivered in the online, synchronous format, several adjustments were made to create a positive "virtual" learning environment.

To begin with, the instructor used the university-operated Learning Management System (LMS) to inform all participants of a Google Meet code that would be used for the entire semester. Moreover, the instructor arranged each class session to be recorded and the recorded content be uploaded to another platform operated by the university. This step was to ensure that should any student face difficulty in internet connection, he/she would still be able to access the recorded class sessions. This arrangement also provided an alternative for COVID-affected students to make up any missed learning content.

Third, the learning materials and ST text files in this course were arranged differently. To begin with, all learning materials were sent to the students before the semester started. This step was necessary because, during the information processing stage of the ST training, the students should take some simple notes as reminders for rendition production into the target language. For those students who preferred to work with electronic files, the materials (PDF files) were uploaded ten minutes before each session began. The purpose of such an arrangement was two-fold: to simulate the working format of an ST task, in which an interpreter would receive the to-be-handled materials not long before his/her work started, and to duplicate a typical ST instructional setting of a face-to-face learning environment. Furthermore, because the students had to rely on the Google Meet "virtual classroom" as the only channel for information reception, the instructor created PowerPoint files for all the ST texts, so the participants' attention would be directed solely to the texts presented on their computer screens. For each text, two PowerPoint files were created; one was used for text explanation and in-class practice, whereas the other was designed to train the students for timely rendition production. On average, the participants had 15 to 25 seconds for both reading a message (for a sentence of ten to 15 English words) and delivering the rendition. This timed practice was designed to create some reasonable pressure to these ST

learners as a reminder of a real ST working condition.

Fourth, for an online course that might potentially lack teacher immediacy, the sense of proximity of an instructor, some steps were taken to ameliorate such a deficiency. For each session, the instructor would enter the Google Meet "classroom" ten minutes earlier. Each participant was greeted as he/she entered the classroom for two purposes. One was to enhance the student-instructor interaction, and the other was to test the internet connection for ensuring a good audio-visual reception. Moreover, during the whole-class rendition reviews, the instructor would make extra effort to confirm if each student understood the comments to his/her ST rendition. Such a step was critical for two reasons. For one, it supplemented the lack of eye contact or physical affirmation typically available in a face-to-face learning setting. For another, it helped the instructor to secure learners' ST skill acquisition progress and rendition understanding. In addition, the instructor frequently made use of the "hand-raising" function in Google Meet to elicit the confirmation of understanding from the students (also a way to help keep the students focused). These measures were implemented to shorten the distance created by the online learning environment.

In this online course, all teaching/learning activities were similar to those incorporated in a traditional ST course. That is, for each ST practice, the teacher would first guide the students to understand the meaning of the text. Once the students were clear with the message to be sight-translated, their one and only focus was to produce the rendition within the time frame. A text was divided into two parts for students to work in pairs. As a pair, the students would work collaboratively to produce the rendition for the entire text and give each other suggestions when needed. The pair practice was performed through either Facebook Messenger or LINE, the two most popular choices for this group of students, so they could exchange their renditions and comments. After a total of 14

minutes for pair practice, the whole class would resume, and the instructor would play the PowerPoint file to elicit the students' renditions of the entire text. For each student's rendition, the instructor would provide immediate feedback, in the format of either strength/weakness analysis or alternative rendition provision. After each class session, the students were given the task to record their entire renditions as homework. To complete this task, the students had to view the PowerPoint file with timed content, record their ST renditions in the given time, and train their eye-mouth coordination in reading a message and delivering its ST rendition. This course design incorporated both conventional and innovative elements. Several teaching/learning activities, including teacher-guided ST preparation, pair practice, and whole-class rendition review and critique, were selected from K. C. Chang's (2016) course design because they were proven effective for students' ST skill acquisition. Moreover, to create a strong ST-learning community, the instructor adopted some immediacy-enhancing measures to bring about better and more frequent learner-instructor, learner-content, and learner-learner interactions.

Data Collection Tools

In this study, two data-collection tools (one survey covering four aspects and an interview) were employed. First, as this study aimed at examining the relationships between two major variables, interaction and student satisfaction, a survey was administered at the end of the semester. The survey (see Table 1) was adopted from the study carried out by Kuo et al. (2014) and covered the aspects of LLI, LII, LCI, and learner satisfaction. This survey was selected as the research framework of this study because of its multiple aspects in examining the element of interaction taking place in an online course. Specifically, LLI explored how the students rated their interaction with practice partners and other classmates. LII examined how the students viewed their interaction with the instructor, and LCI

elicited the students' viewpoints on how useful/helpful the course materials were. Last, five statements asked the students to reflect on their satisfaction levels with this course-taking experience. In the study of Kuo et al. (2014), the Cronbach values for LLI, LII, LCI, and Satisfaction were 0.93, 0.88, 0.92, and 0.93 respectively.

Table 1

Interaction and Satisfaction Survey

Scale	Survey Items
LLI	• Overall, I had many interactions related to the ST course content with my practice partner(s). • I received lots of feedback from my practice partner(s). • I communicated with my practice partner(s) about the course content through different electronic means (LINE, Google Meet, and/or other instant messaging tools). • I answered the questions of my practice partner(s) through different electronic means (LINE, Google Meet, and/or other instant messaging tools). • I shared my thoughts or ideas about the teacher-provided explanations and paired practice of ST materials with my practice partner(s) and other classmates during class. • I commented on my practice partner's (or partners') and other classmates' thoughts and ideas. • Pair/Group practices during class gave me chances to interact with my partner(s) and other classmates. • ST practices led to the interactions with my partner(s) and other classmates.
LII	• I had many interactions with the instructor during every class session. • I asked the instructor questions through different electronic means (LINE, Google Meet, and/or other instant messaging tools). • The instructor regularly posted materials for students to practice on their own and/or pose questions on the LMS platform. • The instructor replied to my questions in a timely manner. • I replied to the messages from the instructor. • I received enough feedback from my instructor when I needed it.

(continued)

Table 1

Interaction and Satisfaction Survey (continued)

Scale	Survey Items
LCI	• The online ST materials and practices helped me better acquire the needed skills. • The online ST materials and practices stimulated my interest for this course. • The online ST materials helped relate my previously-learned concepts and skills in translating and interpreting to new concepts or skills. • It was easy for me to access and participate in the online ST materials and practices.
Satisfaction	• Overall, I am satisfied with this class (ST training). • This course contributed to my educational development. • This course contributed to my professional development. • I am satisfied with the level of interaction (with my peers and my instructor) that happened in this course. • In the future, I would be willing to take a distance-learning course delivered in the synchronous mode again.

Furthermore, in order to verify the results from the survey analyses, one-on-one interviews were carried out on all 23 students. The one-on-one interview was conducted by both the second rater and the researcher's teaching assistant as a way to minimize any potential influence from the primary researcher (also the instructor). Five questions were posed. The emphases were placed on how the students perceived their overall course-taking experience in this ST course (meeting their expectations or not), how they evaluated this course compared to other previously-taken online courses, how they evaluated the strengths and weaknesses of this instructor, what they viewed as the contributing factors to a successful online course, and how likely they were to take other synchronously-taught online courses.
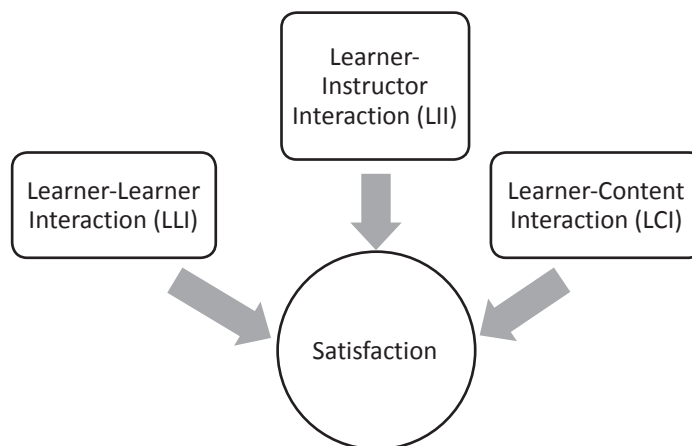
Data Analysis

The surveys and interviews were analyzed to gain insight into the implementation of this online ST course. The data analysis is divided into the quantitative and

qualitative parts. For the quantitative part, the descriptive statistics were obtained and the Pearson Correlation test was performed through SPSS 28. First, to observe how the students responded to the survey items (covering interaction and satisfaction), the descriptive statistics were compiled into Table 2 (see Findings and Discussion) to provide the details on mean and standard deviation and reveal the factors perceived strongly by the participants. Second, the means of different subscales were computed and employed to perform the Pearson Correlation test in detecting if a significant correlation could be established between different sets of variables (LLI-satisfaction, LII-satisfaction, and LCI-satisfaction, see Figure 1).

Figure 1

A Framework for Examining the Relationships Between Interaction and Satisfaction

Furthermore, the qualitative analysis focused on the sorting of the interview data. The interview covered 23 students, and their interview content was first transcribed by the researcher's teaching assistant. To keep their personal information confidential, the 23 participants were coded from Student A to Student O. Later, the extracted content from their interview transcripts was also presented

accordingly. Second, both the researcher (the first rater) and another rater carefully read through five randomly-chosen copies of transcripts. Regarding their educational backgrounds, the first rater, the primary investigator, received her master's degree training in Translation and Interpretation and PhD training in English Linguistics. The second rater's research training is in both Linguistics and TESOL. In their initial reading of the five transcripts, both raters attempted to filter out some keywords. For each interview question, the attention was directed to the adjectives or phrases/expressions used to describe/elaborate the student-participants' perceptions. In some cases, when the students employed metaphorical expressions to describe their experiences, both raters would note the expressions for categorizing purposes. Then the two raters, acting as coders, compared and contrasted the selected keywords and expressions. During the initial alignment of the first five copies, the two coders reached a percentage of agreement of 0.89. With this level of consistency, the two coders proceeded to analyze the remaining eighteen interview transcripts.

Findings and Discussion

The findings in this study are divided into four parts, according to the sequence of the four research questions. Under the heading of each research question, the information is further arranged in the order of descriptive statistics and some supporting details from the interviews. The descriptive statistics show the students' responses to the survey statements, and other details are elaborated through the sorted interview data. Furthermore, on whether significant correlations could be established between variables (different pairs of factors), the Pearson Correlation test results are presented.

Students' Evaluation of Interaction and Satisfaction

As Table 2 presents the descriptive statistics (means and SDs included) of the entire survey, this section explains the students' evaluation of the three types of interaction and their satisfaction in this online ST course.

Table 2

Descriptive Statistics on LLI, LII, LCI, and Satisfaction

Items	Mean	SD
1. Overall, I had many interactions related to the ST course content with my practice partner(s).	4.61	0.499
2. I received lots of feedback from my practice partner(s).	4.48	0.511
3. I communicated with my practice partner(s) about the course content through different electronic means (LINE, Google Meet, and/or other instant messaging tools).	4.26	0.449
4. I answered the questions of my practice partner(s) through different electronic means (LINE, Google Meet, and/or other instant messaging tools).	4.22	0.422
5. I shared my thoughts or ideas about the teacher-provided explanations and paired practice of ST materials with my practice partner(s) and other classmates during class.	4.87	0.344
6. I commented on my practice partner's (or partners') and other classmates' thoughts and ideas.	4.26	0.449
7. Pair/Group practices during class gave me chances to interact with my partner(s) and other classmates.	4.87	0.344
8. ST practices led to the interactions with my partner(s) and other classmates.	4.78	0.422
9. I had many interactions with the instructor during every class session.	4.78	0.422
10. I asked the instructor questions through different electronic means (LINE, Google Meet, and/or other instant messaging tools).	3.78	0.422
11. The instructor regularly posted materials for students to practice on their own and/or pose questions on the LMS platform.	4.70	0.470
12. The instructor replied to my questions in a timely manner.	4.78	0.422
13. I replied to the messages from the instructor.	4.09	0.288
14. I received enough feedback from my instructor when I needed it.	4.87	0.344
15. The online ST materials and practices helped me better acquire the needed skills.	4.83	0.388
16. The online ST materials and practices stimulated my interest for this course.	4.70	0.470

Table 2

Descriptive Statistics on LLI, LII, LCI, and Satisfaction (continued)

Items	Mean	SD
17. The online ST materials helped relate my previously-learned concepts and skills in translating and interpreting to new concepts or skills.	4.57	0.507
18. It was easy for me to access and participate in the online ST materials and practices.	4.83	0.388
19. Overall, I am satisfied with this class (ST training).	4.78	0.422
20. This course contributed to my educational development.	4.78	0.422
21. This course contributed to my professional development.	4.48	0.511
22. I am satisfied with the level of interaction (with my peers and my instructor) that happened in this course.	4.87	0.344
23. In the future, I would be willing to take a distance-learning course delivered in the synchronous mode again.	4.70	0.559

Note. The *N* for the above survey results was 23.
　　Items 1 to 8 are placed under the heading of LLI.
　　Items 9 to 14 are placed under the heading of LII.
　　Items 15 to 18 are placed under the heading of LCI.
　　Items 19 to 23 reflect students' satisfaction towards this course-taking experience.

To begin with, the students acknowledged their ST practices led to much interaction with their partners and other classmates (4.87, 4.87, and 4.78 of means from statements 5, 7, and 8). The students indicated they shared "thoughts or ideas about the teacher-provided explanations and paired practice of ST materials" with their partners and other classmates during class. In addition, ST practices encouraged the students to interact with their partners, as shown in the mean of Statement 1 ($M = 4.61$). The students' responses to these four statements have reinforced that in-class practice stimulated and enhanced the interaction within pairs, not only in idea sharing but also for rendition production. However, the students seemed to evaluate the feedback from their partners and the feedback made by themselves differently. In the students' perceptions, they received more feedback from their partners ($M = 4.48$ for Statement 2), compared to the feedback they provided to their partners ($M = 4.26$ for Statement 6). This difference might

indicate the students were more critical in how they performed the role of a feedback-provider. Yet, the perception of receiving much feedback from their partners has helped strengthen the LLI in this ST course. Then, among the statements in the LLI sub-scale, the lowest mean ($M = 4.22$) was found to be associated with Statement 4 (the use of different electronic means for communication). In the one-on-one interview, this result was verified; most students (20/23) indicated they preferred using Facebook Messenger and LINE as the predominantly used apps for instant communication. The students also revealed they appreciated the arrangement of peer practices because such practices acted as a buffer, allowing them to brainstorm the renditions before the whole-class review. Moreover, pair practices enabled the students to feel more confident in presenting their renditions for the whole-class review. Student O said, "I know, theoretically, as my face is hidden behind the screen, I should feel less intimidated when presenting my ST renditions. However, it is the practice with my partner that gave me more confidence." Similarly, Student B and Student F shared their views as follows:

> ST is my first interpretation course. When knowing that ST would be offered as a distance-learning course, I was worried about being "alone." However, the teacher's arrangement of pair practice bolstered my confidence because I had not only her [the instructor's] guided explanations but also a partner's support. (Student B)

> Honestly, I was surprised by the ample opportunities for peer interaction in this course. For every assigned article, my partner and I got to work closely not only to manage the time better for ST production but also to become better listeners and feedback-providers. (Student F)

Both the descriptive statistics and the interview excerpts have affirmed, in this ST course, the students evaluated the elements of peer interaction and peer input very positively. What can be concluded about LLI in this ST course is that pair practice,

as a learning activity, has played a vital role.

Furthermore, the students' LII responses have indicated the students had much interaction with their instructor, especially in teacher's comments on ST performance ($M = 4.87$), in-class interactions ($M = 4.78$), teacher's timely replies to their questions ($M = 4.78$), and teacher's regular postings of additional materials or questions ($M = 4.70$). Such results have confirmed these students engaging in distance learning were keenly aware of how they interacted with the instructor and how their learning needs were addressed. Among the six statements in the LII sub-scale, only two statements generated much lower means ($M = 4.09$ for Statement 13, $M = 3.78$ for Statement 10). These results have indicated some students did not reply to the messages from their instructor (Statement 13) and the students did not use different electronic means to ask their instructor questions (Statement 10). The descriptive statistics provided above were further verified during the interviews. The students were asked what factors in this course impressed them the most. An overwhelming response (21/23) indicated the students highly appreciated the instructor's "immediate individual feedback" to their ST renditions. For instance, a student expressed, "the teacher always double-checked if I understood the weaknesses in my ST renditions and provided different versions to the same source text, allowing me to see the differences between my renditions and hers" (Student F). Student H and Student K also provided their observations on teacher-student interaction, while Student M gave a more generalized comment on her view regarding LII in a skill-based online course:

> I had translation courses before, and the class size was about 30 to 35 students. The courses were delivered face-to-face, in a traditional manner. This ST course brought me the experience of "individualized performance critique." I appreciated my teacher's comments on my renditions, for they were more tailor-made and helpful. (Student H)

For me, although this course was delivered online and there was a screen between me and others in this virtual classroom, I felt close to my instructor and classmates. In every session, my teacher ensured every student was given a chance, or more, to present his/her ST rendition and receive feedback. I like that because it shortened the distance between me and the teacher. (Student K)

For me, the interaction with my instructor trumps the interaction with my peers in an online course when skill acquisition is the main purpose because I believe the instructor's guidance, feedback, and professional competence play the key roles of helping me acquire the target skills. (Student M)

When asked if they replied to the instructor's postings or made use of different electronic means to ask questions, the students' responses were often negative. In the entire class, 19 out of 23 students expressed that the teacher's explanations were always clear, so it was not necessary to reply to her postings. Even when the teacher could be reached through multiple channels (Facebook Messenger, email, and the LMS), most students chose to "stick to one communication channel" for their personal reasons. Therefore, the lower means on Statement 13 and Statement 10 are not to be taken as "red flags." In fact, such lower means revealed because the teacher presented her course materials and course-related postings in a clear and easy-to-understand manner, the students had fewer questions and experienced less confusion, leading to their lower needs in replying to the course-related messages from the instructor. In addition, the interview responses showed many students preferred using one communication channel rather than many. Clearly, as long as an instructor responds to his/her students' questions or comments in a timely manner, communication in an online course can still be smooth.

Finally, in the LCI aspect, the students acknowledged the usefulness and appropriateness of the arranged ST learning materials. The course content, both the

materials and practices, helped the students acquire the needed skills (M = 4.83), stimulated the students' learning interests in ST (M = 4.70), and helped connect their previously-learned concepts to the new skills (M = 4.57). These figures were verified in the interviews, and three excerpts have been chosen for further sharing:

> I really enjoyed the different genres of texts selected by the teacher. I learned to analyze different articles from different angles. I believe ST has pushed me to go further. I have to understand the message, process the information quickly, and reconstruct the message in the target language. (Student A)
>
> I took ST because of my interest in taking more advanced interpretation courses later. Personally, I am fascinated by the different ways of processing information and, especially, processing information in a fast manner. The structure of the course provided not only practice opportunities but also ways of improvement, allowing me to gain a sense of achievement. (Student L)
>
> I especially like the use of PowerPoint files, both the regular and the timed-practice versions. In this ST course, visual stimulation brought by the PowerPoint files played a key role in holding my attention, I think. The timed-practice version enabled me to gauge my ability in delivering the renditions within the given time frame. (Student D)

In the LCI aspect, the responses collected above have shown that the students acknowledged the importance of receiving visual stimulation, appreciated the opportunity to conduct ST practices in different conditions (with and without time constraints), and enjoyed the ease of accessing the online ST materials as well as participating in the practices (M = 4.83 for Statement 18). Evidently, the students' high evaluation results were closely connected to how positively they perceived the usefulness of the materials, whether those materials were stimulating, and if such materials could be linked to their previously acquired skills/concepts.

Last, in terms of student satisfaction of this online ST course, the descriptive

statistic details were very encouraging. Among the five statements, two statements related to ST training (statements 19 and 20) earned a rating of 4.78, indicating the students were very satisfied with this course-taking experience and believed the acquired skills and learning contributed to their educational development. Moreover, the students confirmed their high satisfaction in the interactions with their peers and instructor ($M = 4.87$). These positive responses may have contributed to the students' willingness in taking other synchronously-delivered distance-learning courses in the future ($M = 4.70$). On this response, the interview details revealed even more positive results. When asked if they would consider taking other synchronous distance-learning courses, 21 out of 23 students confirmed they had already registered for Consecutive Interpretation offered in the subsequent semester (taught by the same instructor). On the factors motivating them to sign up for another online interpretation course, the students' reasons were mostly related to the instructor aspect. Fifteen students ranked the instructor's ability to structure a successful online course as their top consideration. Seventeen students stressed that the affective factor was more important for them—they simply liked how this instructor managed her virtual classroom, interacted with the students, and fostered a learner-friendly online environment. The interview results shed light on the reasons for the students to be open to other distance-learning courses. These factors include an instructor's competence in managing an online course, a sound structure and solid course content, a well-rounded design of solutions for addressing communication breakdowns, and measures to enforce a sense of community in a distance-learning course.

From the findings related to the first two research questions, it is clear all three types of interaction received highly positive ratings from the students, leading to the students' high course satisfaction levels. These findings point out that the nature of an ST course could potentially work very well with an online instructional format. When

provided with ample opportunities to interact with their peers, timely teacher feedback, and highly accessible learning materials, the students tended to perceive such an online learning environment as friendly, safe, and conducive to their learning.

Correlations Between Interaction and Satisfaction

Research question three aimed at exploring if any significant correlation between interaction and satisfaction could be established. For this purpose, the Pearson Correlation test was performed to examine the relationships between the students' course satisfaction mean and the sub-scale means of LLI, LII, and LCI. The results were compiled into Table 3. Among all three aspects of interaction in this ST course, the yielded results pointed to the levels of high significance (0.523, 0.754, and 0.851 respectively). Among the three sub-scales, the findings were quite consistent with the previous studies. First, the correlation between student satisfaction and LCI was the strongest one at 0.851, affirming the importance for an online course to have carefully-chosen, well-arranged, and specifically-devised course materials. When this concept is applied to the implemented ST course, the findings have shown the students valued the different genres of texts, the learning activities and teacher comments, and the teacher-created PowerPoint files. In the interviews, the students shared that the course content met their expectations of acquiring new skills in performing ST tasks, something they had not learned before. Moreover, 19 students commented that the chosen texts aroused their learning interest and the content was challenging in the aspect of skill application. Student J provided the following explanations:

> I liked the texts that my instructor arranged for this ST course. In different genres, my partner and I were "pushed" to follow the teacher's guidance in reviewing what we had learned before and contemplating how we could apply the concepts and newly-acquired skills further to suit the texts. (Student J)

For most students in this study, the arrangement of course materials stimulated their interest and built their confidence in ST learning. Moreover, the belief of trusting themselves in furthering ST skill applications was shared by at least 14 students (including Student J), revealing these students exhibited increasing self-efficacy and high motivation. The former was demonstrated through the students' confidence in their newly-acquired skills, and the latter was shown through the students' deep engagement in ST learning activities.

Second, to facilitate LII and LLI in this online ST course, the students were provided with different teaching/learning activities. On the one hand, as the emphasis of LII was on how the teacher interacted with the students in a course, the students were provided with ST text explanations (learning guidance from the instructor) and immediate rendition feedback (comments tailored to the students' individual rendition outputs). On the other hand, LLI focused on how the students were encouraged to interact with each other, as pair practices and whole-class rendition reviews took place regularly in every session. The Pearson Correlations (in Table 3) indicated the correlation between student satisfaction and LII was highly significant, with the reading of 0.754 at the significance level of < 0.001. Furthermore, although the interaction between/among learners in this course was evaluated positively by the students, the correlation between satisfaction and LLI was much lower (0.523 at the 0.05 significance level). Despite the different significance levels of LII and LLI to learner satisfaction, these 23 students clearly acknowledged the importance of interacting with the instructor and their partners. With the instructor's guidance and timely feedback, the students gained confidence, knowing they could handle future ST texts, and became more invested and motivated in their ST learning. Similarly, with their partners' support in ST pair practices, these students learned to trust themselves and their partners in producing ST renditions.

Table 3

Pearson Correlations Between Interaction and Satisfaction

		LCI Mean	LII Mean	LLI Mean
Satisfaction Mean	Pearson Correlations	0.851**	0.754**	0.523*
	Significance	0.000	0.000	0.010

**. Correlation is significant at the 0.01 level (2-tailed)

*. Correlation is significant at the 0.05 level (2-tailed)

Factors Contributing to Student Satisfaction

This study was designed based on the acknowledged importance of learner satisfaction towards an online course and the success of such a course. Therefore, other than the satisfaction survey results, five interview questions were posed. In this part, the data are presented in a more summative manner, focusing on how the students' responses addressed the research question related to "the contributing factors to student satisfaction."

The responses to Question 2 and Question 5 have highlighted the features these students evaluated highly: teacher guidance in acquiring ST skills, teacher feedback to ST renditions, clear course instruction, and sufficient practice opportunities. From the interview transcripts, the students' answers were sorted, tallied, and ranked. Among the interview answers, eight types demonstrated the highest frequencies (see Table 4).[2] When the top four identified factors were first examined, they seemed to reflect how the students reacted to the course delivery (Factor 1), designed activities (Factor 3 and Factor 4), and instructional practices (Factor 2). Yet, when the interview responses were interpreted "as a whole" (with more student-provided details), all three types of interaction could be seen as

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[2] As the interview questions were open-ended, the extracted keywords of the students' answers were not taken word-for-word; instead, the answers of similar interpretation were categorized into one type. Both raters reached an inter-rater reliability of 0.92 in categorizing the extracted keywords.

intertwined in their effects on student satisfaction. For instance, Student M commented on her feelings of "confidence and a sense of ease in presenting the renditions during the whole-class review" because she worked closely with her partner who provided her with helpful feedback. Student F expressed, "I especially like the fact that, in this class, we were actually sight-translating. In my previous translation courses, the instructor put quite an emphasis on lecturing, rather than putting us to work." Also, sharing her views on feedback, Student H stated, "For me, I enjoy comparing my renditions with those provided by my instructor. I believe I still have much room for improvement in word choice and the control of nuance." Clearly, the successful implementation of in-class practices required not only close partner interaction (LLI) but also timely teacher feedback (LII).

Table 4

Student-Identified Helpful and Contributing Factors

Ranking	Extracted Course-Related Factors	Total of Tallies
1	Clear instruction and learning guidance from the teacher	22
2	Helpful and clear teacher feedback on ST renditions	21
3	Useful learning activities (pair practice/whole-class rendition review)	21
4	Sufficient practice opportunities	20
5	Course material arrangement (and updates)	18
6	Instructor's personal traits	16
7	Encouragement from peers and the instructor	14
8	A sense of belonging (and community)	14

In addition, the interview results shed light on the close relationship between the students' evaluations on their "met expectations" and learning satisfaction. Among the five interview questions, the responses gathered on Question 1 and Question 5 have revealed an important finding. When learners took a course and found the course-learning process met their expectations, they were very likely to engage further in similar learning activities. On Question 1, regarding whether the

learned content/skills met their expectations, 22 out of 23 students gave an affirmative answer. The remaining one student acknowledged she had learned a lot but concluded that her interest was not in interpretation. As a whole, 19 students said they could process information much faster after the ST training; 18 students expressed that although ST was demanding, the skills acquired bore a very high level of practicality, for ST skills could be put to use not only for academic purposes (like reading a difficult textbook or a journal article) but also for work-related tasks (like quickly summarizing a business report); 20 students gained more confidence in taking subsequent interpreting courses. Furthermore, these positive evaluations led to another direct development; at the time of the interview, 21 students had already registered for another interpreting course offered in the synchronous online manner. When asked about such a decision, the students emphasized two factors: learning interest and confidence in the instructor. The students indicated ST had stimulated their learning interest in interpreting, and being satisfied with taking the ST course with this instructor motivated them to take another course with her.

Commenting on the roles of an instructor in an online course (especially with this ST course in mind), the students highlighted two capacities: a teacher (for course design) and a facilitator (for smooth course implementation). For many students (20/23), they stressed how a teacher structured his/her course as a whole was manifested in every class session. Student C said, "My instructor has demonstrated her teaching ability because she is able to control the course pace, attract our attention during class, help us acquire the skills, and guide us to improve our renditions." Moreover, Student G stated, "In each session, the instructor made sure that every student got at least one chance to present an ST rendition. She was demanding but in a non-threatening way. I would say she has a very 'encouraging' personality." On the role of a facilitator, Student K supplemented the following details:

One worry for taking an online course was that I would drift off or lose attention in what I was supposed to learn. However, in this course, the pace was controlled very well. Each activity was allotted a time frame. We were guided to complete the pair practices, and the instructor always had a good control of time in the whole-class rendition review. (Student K)

Both raters, when processing the students' responses for Question 4, gained the feeling that the role of a facilitator and a manager could easily overlap because a course could never be implemented well without good management in time and many other details.

From the interview responses, several aspects were further confirmed. First, a highly interactive learning setting is very important for an online course. Such a characteristic is even more crucial when students do not see their peers in person. Second, the experience from one class can easily affect students' choices in taking other courses of a similar nature. When students evaluate a course-taking experience as satisfactory, they will be more likely to continue taking other courses delivered in the same format. Third, an online course requires the instructor to take on many roles. Although these roles are also present in face-to-face courses, an instructor's ability to take on and manage these roles successfully will have a direct impact on the success of his/her online courses. Clearly, a successful online course must take all these factors into account.

Conclusions, Limitations, and Implications

This study on examining the factors of interaction and learner satisfaction in an online ST course has generated encouraging results. First, for an ST course typically offered in a face-to-face instructional mode, its successful implementation in an online synchronous format requires detailed planning in the presentation and

accessibility of course materials. This observation of course material accessibility is especially in line with the conclusion drawn in the studies carried out by Ranadewa et al. (2021) and Kumar et al. (2021), highlighting that the accessibility of learning content bears a direct impact on students' evaluation of course satisfaction. When perceiving the instructor-designed or prepared materials as aligning with their learning goals and meeting their expectations, learners are more likely to interact with such materials more actively and value the LCI more, further leading to their learning satisfaction (Alqurashi, 2019; Gameel, 2017; Kumar et al., 2021; Pham & Nguyen, 2021). In this study, the texts for ST skill training were made available in three formats: paper copy, electronic file, and PowerPoint file. The first two formats were provided to meet the students' different needs as note-taking played an important role in the preparation of ST renditions, but some students preferred taking notes on electronic devices. Moreover, the text-corresponding PowerPoint files were created in two ways, with and without time control. The former was used for initial practice without a time limit imposed, while the latter was programmed to have specific time set on each slide to push the students to deliver the ST rendition within the set time. For training purposes, both formats were well-received by the students, for they could see the merits offered in these two different material presentation modes. In addition, all class sessions were recorded with the aid of Google Meet to serve as a backup plan for students who either experienced poor internet connections or got sick and had to miss a session. Both the survey results and interview transcripts have revealed the careful planning and arrangement of course materials were perceived positively by the students because they believed the above-described course materials helped focus their attention on ST practice and training.

Second, with a strong interpreting training element in an ST course, interaction (covering the learner-content, learner-instructor, and learner-learner aspects) plays a

determining role in students' training outcomes and satisfaction. To begin with, this study has shown the students learning ST perceived their interaction with course content as highly positive. The students especially appreciated the variety of texts included in the course materials, stressing different skills were required in the processing of various genres of texts and the production of the corresponding renditions. Therefore, the Pearson Correlation test results showed that LCI was the best indicator of student satisfaction, at the correlation level of 0.851. This finding is consistent with the results found in many past studies (Alqurashi, 2019; Bernard et al., 2009; Bervell et al., 2019; Gameel, 2017; Kumar et al., 2021; Kuo et al., 2014; Marzban, 2011; M. G. Moore, 1989; M. G. Moore & Kearsley, 1996; Pham & Nguyen, 2021). Then, following LCI, LII was found to be a strong indicator for student satisfaction. The extracted interview excerpts confirmed that LII held a strong affective power over the students, for they recognized the importance of interacting with the instructor in understanding the given texts, detecting their weaknesses in renditions, and seeking advice for ST skill improvement. Many students desired individualized rendition feedback, for such feedback could help them perform better in word choice, grammar, and information arrangement. When such a desire was fulfilled through LII, the students' course satisfaction level naturally increased, a finding also echoing the results from some past studies (Baber, 2020; Turley & Graham, 2019; Yukselturk & Yildirim, 2008). These details can help ST instructors, interpreting instructors, or even teachers in other disciplines to incorporate such features into their online courses. Finally, although LLI ranked last in predicting student satisfaction, the insight provided by the interview results still affirmed the importance of peer interaction. In this ST class, the students were encouraged to engage in collaborative work (through pair practice). Different from the findings of Alqurashi (2019), Bray et al. (2008), Johnson et al. (2014), and Kuo et al. (2013), the students in the current study enjoyed working together because

they received support from their peers, trusted in the competence of their partners, and had ample opportunities to communicate and share ideas with their classmates. Moreover, the students in this ST course gained confidence from their partners about their renditions. What the interview and survey responses have informed the field of ST instruction is that some students may be intimidated by the task of rendering their practice results directly in class. Consequently, having the opportunity to practice with their peers and gain feedback can help boost their confidence and lower their potential anxiety. Working with a partner to tackle the challenges brought by different ST texts allowed the students to receive support, gain confidence, and take on the role of a feedback-provider, developing this ST course into a learning community. All these perceived benefits have supported the positive link between LLI and learner satisfaction found in Kurucay and Inan (2017), Pangarso and Setyorini (2023), She et al. (2021), and Zhu (2011) and contributed to the students' positive evaluation and course satisfaction of this ST learning experience.

Third, for students to evaluate a synchronously-taught online course as highly satisfactory, the element of instructor seems to play a crucial role. The students in this study valued the arrangement in which the instructor could be reached via multiple channels, ranging from email, to Facebook Messenger, to LINE. Moreover, the students expressed they did not have to ask the instructor additional questions because her explanations on ST texts and feedback comments were always very clear. Also, although the students acknowledged learning ST was challenging and the teacher was demanding (in timely rendition production), they regarded the instructor as supportive, competent, and non-threatening. The teacher-immediacy enhancing measures adopted in this ST course, including individual rendition feedback immediately after its delivery, in-class comprehension checks, and individual greetings, could be considered helpful in creating a community-like online learning environment.

However, this study does exhibit a few limitations. First, the class size was small partly because ST classes are advised not to be too large. Thus, the findings may face difficulties in their generalizability. Therefore, more interpreting teachers are encouraged to try to offer their courses in the online, synchronous mode to further confirm the findings generated from this study. Moreover, since the suggestion to make an ST class larger may not be feasible, collecting research data over a longer span to cover several classes may be an alternative. The challenge in the latter approach is to keep all the study parameters the same, an attempt requiring more attention and effort. Both suggestions should help advance the instruction of ST and help investigate students' learning effectiveness in an online setting. Second, in this study, the results on learner satisfaction were student-reported through their responses to the five statements taken from the study of Kuo et al. (2014). Although this data-collection tool was validated in their research, more about student satisfaction can still be explored with other in-depth surveys. With the aim of generating a greater number of positive learning outcomes from various settings, future research efforts can be directed to this front.

This study on an online, synchronous ST course has helped disperse the doubt and worry about instructing students to acquire and apply ST skills in an online setting. Through the collected findings, this study hopes to encourage more similar instructional attempts and studies, so a greater understanding can be generated to advance and diversify the field of T&I instruction and learning. For teaching professionals outside of the T&I community, what can be learned from this study is the importance of interaction. In traditional face-to-face classrooms as well as online virtual classrooms, the element of interaction should be more carefully explored and fully utilized to maximize both instructional and learning effectiveness.

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