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An Online Synchronous Test for Professional Interpreters

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ABSTRACT

This article is based on an experiment designed to conduct an interpreting test for multiple candidates online, using web-based synchronous cyber classrooms. The test model was based on the accreditation test for Professional Interpreters produced by the National Accreditation Authority of Translators and Interpreters (NAATI) in Australia. Specifically, the test involved interpreting-specific components such as dialogue interpreting, sight translation, and consecutive interpreting, as well as non-interpreting-specific components such as questions on ethical issues. The test was conducted live synchronously and concurrently with multiple candidates – i.e., all candidates were tested in their own locations at the same time. The result of the experiment indicates the potential and feasibility of conducting interpreting tests online using the specific technology of synchronous cyber classrooms. However, there are also a number of constraints when compared to conventional face-to-face tests. There is a need for further studies on how to effectively apply this kind of technology to conduct interpreting tests for multiple candidates online in synchronous mode and without the constraints identified in this research.

Keywords

Synchronous test, Synchronous cyber classroom, Cyber Face-to-Face, Self-controlled test, Examiner-controlled test

Introduction

There have been a number of attempts over the past decade to teach interpreting skills or train interpreters at a distance in various modalities, using technologies such as teleconferencing by telephone, videoconferencing via satellite, and some limited forms of Internet technology (e.g., Carr & Steyn, 2000; Language Line Services, 2008; Berlitz Interpretation Services, 2001; Moeketsi & Wallmach, 2005; Ko, 2006). Berlitz later stopped providing interpreter training in distance mode. With the rapid development of modern e-learning technology, there is a growing trend towards more on online teaching (e.g., Mayor & Ivars, 2007; Ko & Chen, forthcoming). All of these attempts have made valuable and meaningful contributions to teaching interpreting skills over a distance by applying modern telecommunications technologies to the training of interpreters, and this is an area with great potential. Nevertheless, a review of the literature and a search of other data sources such as the Internet indicate that to date there has been very limited research on testing interpreting skills online.

Interpreting takes different forms, such as dialogue interpreting, sight translation, consecutive interpreting and simultaneous interpreting. Dialogue interpreting refers to the scenario in which two speakers who do not share a common language engage in a dialogue through an interpreter. The interpreter orally translates what one speaker says from one language into the other, and then waits for the other speaker to respond. If the interpreter does not understand what is said, he/she can ask the speaker to repeat or paraphrase. In sight translation, the interpreter is provided with a written text for quick perusal, and must then renders it into the other language orally, maintaining a fluid delivery. Consecutive interpreting is often used in situations in which one person delivers a speech and the interpreter orally translates it into the other language. Consecutive interpreting usually entails the interpreting of longer speech segments than dialogue interpreting, and generally involves rendition in one language direction only, given the nature of a speech. Simultaneous interpreting is a unique form of interpreting in which the speaker and the interpreter are talking at almost the same time. This form of interpreting is often used at international conferences, where the interpreter works in a sound-proof booth and the audience listens to the interpretation via headphones connected to the interpreting booth (Gentile et al., 1996; Wadensjö, 1992; Roy, 2000. The experiments in this research involved tests in dialogue interpreting, sight translation, and consecutive interpreting.

The most common type of interpreting test involves a candidate coming to a testing center and being examined face-to-face by the examiner (see the section of Test design for a detailed description). This conventional form of testing requires each candidate to travel to the testing center; alternatively, the testing authority would need to arrange a local examiner to administer the test to each candidate in his/her locality. This is particularly inconvenient when candidates live overseas, in which case local testing centers must be established and local examiners arranged; furthermore, since testing centers cannot be set up in every city, some candidates will still need to travel to the

closest center. The rapid development of Internet technologies has provided many professions with a flexible platform, and has created the opportunity to explore online practices that were impossible or problematic in the past (Wong & Fauverge, 1999; McAndrew et al., 1996; Buckett et al., 1999; Kötter et al., 1999; Chou, 2001; Ko, 2006).

It is in this context that we conducted this research. Our research questions are: whether it is feasible to conduct an interpreting test online in synchronous mode; whether it is possible to administer such a test to multiple candidates concurrently; and what problems and constraints there may be with this arrangement. It is worth noting that the experiment was not intended to prove that an online interpreting test was in any way better than a conventional face-to-face test. We believe that since this was the first such attempt there were bound to be many problems. It is also worth noting that the research did not seek to explore and compare other IT technologies. We hope that the findings generated by this experiment will be useful for further research, and that our findings can be applied to different test settings.

Test design

This experiment involved a total of 10 participants, including eight candidates, one examiner, and one examination assistant who provided support in the synchronous cyber classroom. The language pair involved in the test was English and Mandarin Chinese, which is standard Mandarin. The duration of the experiment was three hours.

The design of the test used in this experiment was based on the National Accreditation Authority for Translators and Interpreters (NAATI) test for Professional Interpreters in Australia. The NAATI test for Professional Interpreters is conducted regularly – through its annual and special on-demand test arrangements – in Australia and some overseas countries and regions (NAATI, 2008a) such as China, Taiwan, Singapore, and New Zealand. The test scheme covers around 60 languages (NAATI, 2008b). The test consists of two dialogues, two sight translation passages (one in each language), two consecutive interpreting passages (one in each language), four questions on social and cultural issues, and four questions on ethical matters (NAATI, 2008a). The test is delivered by playing a pre-recorded audio tape. In all sections except consecutive interpreting, candidates can ask for some components to be repeated during the test. For instance, candidates can ask for one repeat of a segment in dialogue interpreting without incurring any penalty, and are allowed to ask for unlimited repeats in the social/cultural and ethical components. In order to accommodate this need, when a dialogue was prepared, it was divided into segments so that there was an automatic pause at the end of each segment. In this experiment, the division was done by using the editing mechanism in the computer software. It should be noted that the purpose of the experiment with regard to repeats is to test whether the technology allows candidates to request repeats. It does not matter how many repeats a candidate requests or how long he/she spends on one repeat, because all this will be recorded for assessment (see below).

The whole process of the test is audio recorded, including testing material, candidates' interpreting, and their answers on social/cultural and ethical questions, as well as their requests for repeats. The test is conducted on a one-to-one and face-to-face basis – i.e., one examiner plays a segment of the pre-recorded test and then pauses for a candidate to interpret. If a candidate requests a repeat, the examiner rewinds the source tape and replays the relevant segment. This testing pattern has been used since NAATI was established in 1977.

The experiment incorporated a general introduction to candidates, a test of dialogue interpreting, sight translation, consecutive interpreting, and ethical questions. The general instructions were provided orally by the examiner, while other items were pre-recorded and played during the test. The table 1 presents a detailed description of the testing items in the experiment.

Table 1. Test design

Testing items	Description
General introduction	General instructions about the test are given to all candidates, including test format, requirements, technical setup and operations. Candidates can also raise questions.
Dialogue interpreting	A pre-recorded dialogue is played. A chime indicates the end of each segment, and there is an automatic pause for candidates to interpret. Repeats of relevant segments are allowed.
Sight translation	Candidates are being provided with a written text for perusal for three minutes and then orally translate it into the other language.
Consecutive	Candidates listen to a speech of about 300 words divided into two segments with about

interpreting	150 words in each segment. No repeats are allowed.
Ethical questions	Candidates answer two ethical questions. Repeats of questions are allowed.

Technical environment and settings

The technical environment refers to the facilities and equipment used by the examiner and candidates in the test.

In this research, the web-based Collaborative Cyber Community (3C) learning platform was used for testing purposes. 3C was initially designed for online teaching and learning. It is a synchronous learning management system (SLMS) that can support both an asynchronous cyber classroom and a synchronous cyber classroom in a single system (Chen, Kinshuk, Ko & Lin, 2005; Chen & Wang, 2008). The system was developed by the National Sun Yat-sen University in Taiwan. Its server presently has the capacity to support up to 500 online asynchronous users and 200 online synchronous users simultaneously. Figure 1 summarizes the major functions of 3C.

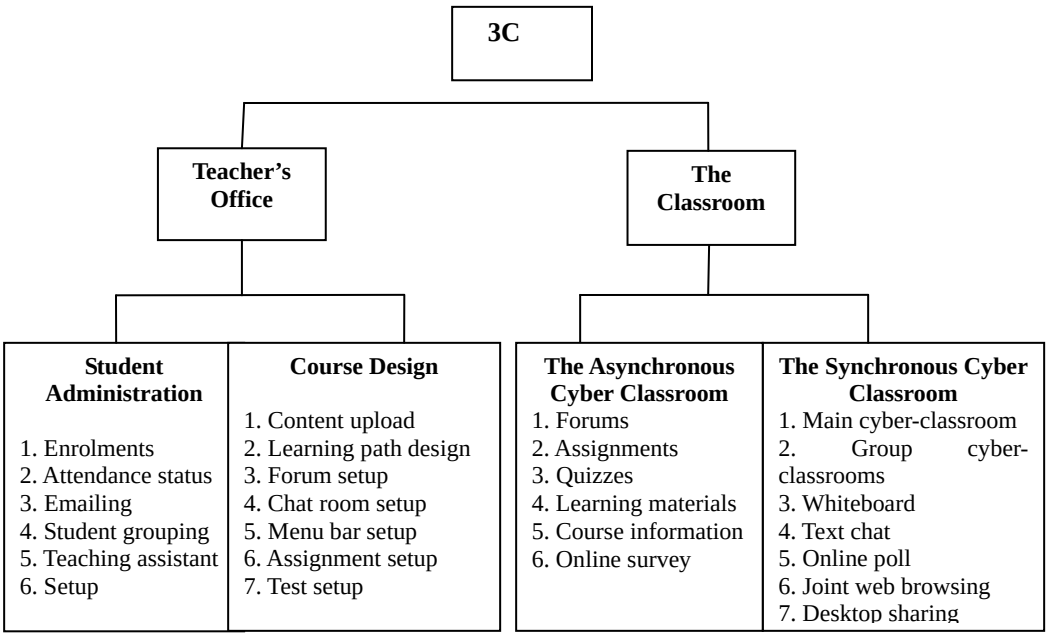

Figure 1. Major functions of 3C

As Figure 1 indicates, 3C has two main environments: the "teacher's office" and the "classroom". The teacher's office can be accessed only by the teacher and teaching assistant for administration and planning purposes, such as uploading learning materials and designing content links. The "classroom" can be accessed by both the teacher and the students. It has two types of cyber classroom: the asynchronous cyber classroom and the synchronous cyber classroom. The asynchronous cyber classroom is available to students 24 hours a day, and is where audio, video and text-based learning resources (e.g., discussion boards, lecture notes, web-based course materials, audio and video recordings of cyber face-to-face sessions) can be accessed.

The major component of 3C that is used for testing is the synchronous cyber classroom with its cyber face-to-face feature (Hastie, Chen & Kuo, 2007; Wang & Chen, 2007). As shown in Figure 2, these classrooms feature five major windows: the main audio and video windows, the control panel, the text chat box, the Whiteboard, and the sub-video windows. Up to 18 sub-video windows can be displayed at any one time. This cyber classroom is also supported by versatile synchronous data sharing tools, such as Desktop Sharing, Window Capture, Joint Web Browsing, Remote Control, and collaborative annotation tools (e.g., drawing tools and eraser). All participants can hear and see one another. Instant text communication and audio and video recording of all activities are also possible.

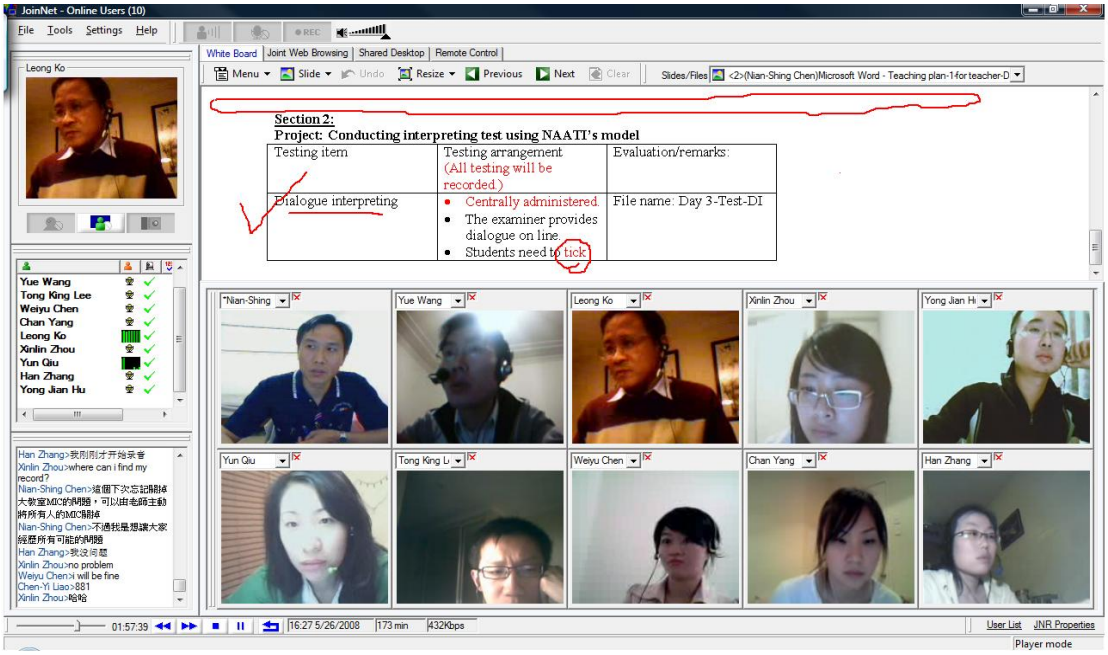

Figure 2. The synchronous cyber classroom

Any user can participate in any activity in the synchronous cyber classroom using a desktop or laptop computer with a broadband Internet connection. Specifically, users must download the synchronous cyber classroom client software (free download), and have headphones with a microphone, or an external USB microphone/speaker with voice echo cancellation, and a web camera. The broadband connection requires a speed of 512Kbps down-streaming and 128Kbps up-streaming.

This experiment was conducted using the above environment with a number of modifications. For instance, the Teacher's Office was converted to the Examiner's Office, the Teaching Assistant was replaced by an Examination Assistant (see Figure 1), and only those functions that were necessary for conducting a test were used. In addition, the examiner, examination assistant, and candidates were all at different sites. To suit the special requirements of the test environment, two places were created, – i.e., the lecture room and individual booths, both using the synchronous cyber classroom concept.

The lecture room is technically known as JoinNet, and is an actual implementation of the synchronous cyber classroom. The lecture room is a place in which the examiner, examination assistant, and candidates are virtually present in the same place, and can hear and see one another as if they were in a physical lecture room. The lecture room has the features of instant text communication, a whiteboard with all necessary tools such as pointer, highlighter, marker, eraser (see Figure 2), Internet connection, and functions for uploading documents, pictures and so on. The lecture room is mainly designed for the examiner to meet candidates, give instructions, answer questions and arrange tests.

An individual booth is a place in which only one candidate is present. Any number of individual booths can be set up depending on the testing requirements. The booths can be set up using alphabetical letters such as Booths A, B, C, and D or using candidates' names. When the test begins, the examiner asks candidates to go into their booths by clicking on the relevant booth. While in the booth, candidates can hear the examiner speaking and the test material being played by the examiner in the lecture room, but when they interpret, they will not experience mutual interference. For instance, when they are in their booths Candidates A and B can hear the test material played by the examiner, but when they interpret they cannot hear each other. In other words, each candidate is present in both the lecture room and their individual booth at the same time. The examiner can enter any booth at any time. Candidates' interpreting and the testing material will all be automatically audio and video recorded by the system for marking purposes.

Implementation

This section will describe the implementation of this experiment in accordance with the testing items listed in Table 1.

General introduction

In this experiment, candidates used their own computers to log on and participate in the test. To begin with, the examiner, examination assistant, and the candidates all logged on and met in the lecture room so that the examiner could explain the technical environment and the testing procedure (see Figure 2). The candidates were told to eliminate background noise and avoid undue interference in order to ensure a quiet testing environment. Three candidates were new to this environment and experienced a number of technical problems concerning sound and vision display. For instance, they could hear an echo in the background when the examiner was talking, or they could not see other participants. This was mainly related to their computer set-up or their misuse of certain functions, such as not using the built-in microphone in the former case and not plugging in the camera when they logged on in the latter. It took some time for the examination assistant to solve these problems. The other candidates had used this software before in another experiment and therefore did not experience any problems.

After the technical problems were sorted out, communications in the lecture room, including the examiner's instructions and candidates' questions, were clear and proceeded smoothly. All participants could hear and see one another clearly without experiencing a noticeable time delay in sound and image. The examiner was able to upload and post materials onto the whiteboard for illustration. In addition, candidates could send instant text messages to the examiner in the text chat room if they experienced any problems. The examination assistant was also on standby to provide any necessary technical support.

The general introduction also included an explanation of some actions that candidates needed to take during the test. While the experiment was designed to minimize the number of actions that candidates needed to take during the test, such as clicking on links or pressing buttons, there were still some functions candidates needed to perform. This is because, in some sections of the test, candidates are allowed to request repeats, and the examiner could not simply play repeats for all candidates regardless of whether they required them. Therefore, when candidates were in their individual booths and began to carry out dialogue interpreting, they needed to press the "mic" and "record" buttons so that the test would be recorded. They also needed to switch off the "auto" button on their control pads, so that the dialogue could be played segment by segment and they could repeat a segment when necessary. If they did not switch the "auto" button off, the whole dialogue would be played. However, when they were doing sight translation and consecutive interpreting, in which no repeats were allowed, they did not switch the "auto" button off. In both modes, candidates' performances and the test materials were recorded by the system in both audio and visual formats. In addition, when candidates entered their booths, the examiner needed to centrally mute their microphones in the lecture room. If the microphones in the lecture room remained activated, candidates' voices would be broadcast and would be able to be heard by other candidates in their booths.

Dialogue interpreting

After the general instructions, candidates entered the individual booths marked with their names. When they entered their rooms, this was indicated on the screen in the lecture room, so that the examiner knew that each candidate was in his/her room. If a candidate experienced a problem, he/she could return to the lecture room for help. As instructed, all candidates pressed the "mic" and "record" buttons and switched the "auto" button off. The examiner then provided the dialogue online. Candidates accessed the dialogue and played it so they could interpret it. There was an automatic pause at the end of each segment of dialogue, which was indicated by a chime, so that candidates would know when to start interpreting. Candidates interpreted at their own speed and were able to repeat a segment when they needed to. When candidates finished a segment, they went on to play the next segment. When they finished the whole dialogue, they sent a text message such as "OK" or "I have finished" to the examiner. Those who finished interpreting the whole dialogue first had to wait for the others to finish before the examiner could move on to the next part of the test.

Feedback from the candidates indicates that during the test they were able to hear the dialogue clearly and interpret without experiencing any interference from other candidates.

During the process of the test, the examiner entered a candidate's booth at a time for supervision. The examiner could enter any candidate's booth at any time (see below for further discussion of supervision issues). All candidates' interpreting output, both audio and video, including any repeats they played, was recorded for checking and marking. The following figure (Figure 3) shows candidates sitting the test in their booths.

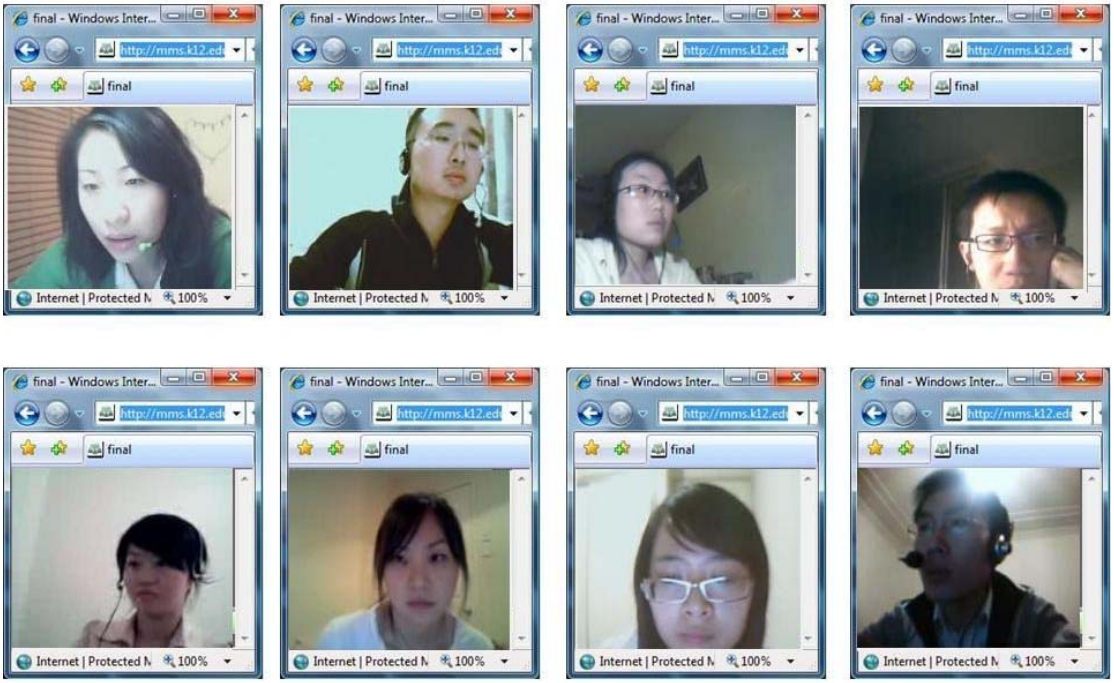

Figure 3. Candidates sitting the test in their booths concurrently

Sight translation

The sight translation test was centrally controlled. The examiner posted the text on the whiteboard in the lecture room, and candidates performed the test in their booths. When they were in their booths, they could view the text on the whiteboard in the lecture room. During the reading time, candidates were allowed to take notes, but they were not able to write on the whiteboard because it was for public use. When the reading time was up, candidates pressed the "mic" and "record" buttons and started their oral translation while looking at the text on the whiteboard. During the whole process of the test, candidates could see the text. Unlike dialogue interpreting, sight translation does not involve playing pre-recorded audio materials or repeating a segment. Candidates were therefore not required to switch off the "auto" button on their control pads. Their oral translation was recorded. As in the case of dialogue interpreting, when candidates finished, they sent a brief text message to the examiner. During the test, candidates did not experience mutual interference, and the examiner was able to enter candidates' booths one at a time to monitor the situation.

Consecutive interpreting

The consecutive interpreting test was centrally controlled, and as required by NAATI, candidates were not allowed to ask for repeats. The examiner played the pre-recorded speech in the lecture room, and candidates interpreted in their individual booths. Like sight translation, when they started to interpret, candidates needed to press the "mic" and "record" buttons, but not to switch the "auto" button off. When they had finished the first segment, they sent a brief text message to the examiner. After the examiner had received a message from all candidates, he played the

second segment. When candidates finished the second segment, they sent another text message to the examiner to inform him that they had finished.

The process of conducting the consecutive interpreting test was relatively simple and straightforward. Candidates did not need to do anything but press the "mic" and "record" buttons. They could hear the speech played by the examiner clearly, and their interpreting was recorded.

Ethical questions

The test on ethical questions was controlled by the candidates to enable the candidates to ask for repeats of the questions where needed. This test was similar to the dialogue interpreting test. The examiner provided the two ethical questions online for candidates to access in their booths. While in the booths, in addition to pressing the "mic" and "record" buttons, candidates were required to switch off the "auto" button before playing the ethical questions. There was an automatic pause after each question. Candidates were able to replay the questions as many times as required. After they had answered the first question, they went on to play the second question. When they had finished, they returned to the lecture room for a debriefing by the examiner, and this concluded the test.

The issues identified in this part of the test were similar to those for dialogue interpreting – e.g., candidates, rather than the examiner, controlled the playing of the test and it was likely that the numbers of repeats requested by candidates would differ.

Discussion

After the experiment, candidates were asked to fill in a questionnaire (see Appendix A) regarding various issues relating to the different components of the test. They were also invited to make open comments. This section presents a discussion and analysis of relevant issues identified in the experiment, incorporating both the observations of the examiner and the examination assistant and feedback from the candidates.

Computers and technical training and support

In this experiment, because resources were limited, candidates were allowed to use their own computers to participate in the test. It can certainly be argued that candidates should not use their own computers for a formal test. While this is a valid point, not allowing candidates to use their own computers would create other problems. The testing authority would need to set up a testing center equipped with computers and ask candidates to travel to this center to take the test, which tends to reduce the flexibility that is the advantage of online testing. Alternatively, the testing authority would need to arrange for computers to be shipped to and from candidates. Both of these options are theoretically possible, but their cost effectiveness would need to be assessed carefully. This is certainly a challenge in trying to develop online interpreting testing procedures. The security implications of allowing candidates to use their own computers require further investigation.

In this experiment, a number of candidates did not have any prior experience with or exposure to the technical environment. They therefore experienced some technical problems. Although the technical problems were resolved on the spot with the help of the examination assistant, this took valuable time away from the test. Candidates who had been exposed to the technical environment during an earlier project did not encounter any technical problems. This suggests the need for a pre-test training session to familiarize candidates with the technical environment and with the relevant software.

The technical support of the examination assistant during the test was also essential. The examination assistant has a dual role – to provide technical support when technical problems arise, and to provide administrative assistance to the examiner such as watching for instant text messages and supplying this information to the examiner. The assistant can also relieve the examiner from playing the testing material so that the examiner can enter candidates' booths to monitor proceedings.

Finally, there needs to be a telephone available, in case a candidate experiences problems in initial logging on or is disconnected from the network during the test. Again, this task can be undertaken by the examination assistant.

Self-controlled test vs. examiner-controlled test

In this experiment, candidates were required to perform some minimal functions, typically pressing the "mic", "record" and "auto" buttons where appropriate. This is partly because the candidates interpreted at different speeds and partly because they were entitled to repeats when they needed them in some sections of the test. For instance, it is impractical for the examiner to play a repeat for all candidates when only one candidate has requested a repeat. Giving candidates control of this aspect of the test resolved this problem.

Nevertheless, ideally, candidates should not be required to do anything but concentrate on sitting the test, and all actions such as pressing the "record" button should be performed by the examiner. This is because a) candidates may forget to press the button or accidentally press the wrong button during the test, resulting in their interpreting not being recorded; and b) such actions may distract them and affect their performance in the test – for instance, they may spend too much time on certain segments or play repeats unnecessarily. The issue of the examiner assuming complete control of the test needs to be further investigated to determine whether the technology can be further developed to accommodate this possibility.

Entry into individual booths

During the test, the examiner was able to enter any candidate's booth and listen to his/her interpreting without distracting the candidate at all. However, it took around 15 seconds to enter a booth or change from one booth to another because it takes time for the system to connect. This would be undesirable in a real testing environment. Ideally, the examiner should be able to switch from monitoring one candidate to another in a matter of one or two seconds. This indicates the need for further research on how to design an online system that allows for instant switches.

The whiteboard

The issue of the whiteboard relates particularly to sight translation. While perusing the text posted on the whiteboard, candidates were not able to write anything on it, because the whiteboard was designed for public use. In this case, candidates had to write notes on their own paper. This is inconvenient, because in a real sight translation test using a printed text, candidates are able to write directly on the text. The brief notes taken by the candidates help them when they render the text into the other language. For instance, candidates may need to use different symbols to reverse, chunk or link components of a sentence so that they will know which part(s) should be translated first when sight translating. Due to the fact that the whiteboard is shared by all participants, it is impractical for all of them to use the same whiteboard at the same time.

In order to meet the requirements of sight translation, apart from arranging a separate whiteboard for each candidate, candidates' computers must also have a function that allows writing directly on the screen with a special pen. The system used in this experiment did have a function that allowed each booth to have its own whiteboard, but this would have meant that the examiner needed to post the material onto the whiteboard of each booth separately. This was inconvenient when conducting a test for multiple candidates, and so this function was not used in this experiment. There is a need to develop a technology that would allow individual whiteboards to be used more effectively. While there is also technology available that would allow candidates to write on the screen with a pen, this would involve an additional cost to candidates for upgrading their computers. It was therefore not used in this experiment.

Sound and visual images

Clear and instant transfer of oral messages and visual images are important factors in conducting an interpreting test online. The results of this experiment show that oral communication, including talking and interpreting, was clear

and occurred in real time. While the clear transfer of visual images is essential in most real interpreting work, because the NAATI test only involves the use of audio tapes for playing the test material and for recording, the issue of visual images is not relevant here.

Another issue relating to sound involves the playing of pre-recorded test materials from external or internal sources for testing. The results of our experiment show that there is no problem with using external sources, such as an external cassette player, as long as the recording quality is good. However, it is preferable to use an internal source, and it would therefore be ideal to use a recording made directly on the computer in order to achieve the best recording quality.

Supervision of the test

Perhaps the most controversial issue in conducting an interpreting test online is how to supervise the test to ensure that no cheating takes place. Indeed, since the examiner and candidates are in different places and the test is not conducted on a one-to-one basis, eliminating all forms of cheating remains a challenge. Although the whole process of the test is audio and video recorded and the examiner can enter each candidate's booth for inspection, it is impossible to monitor each movement of every candidate at all times. For instance, a candidate may receive assistance from a person who is not covered by the webcam. In addition, while dictionaries are usually not allowed in interpreting tests, in the online testing environment candidates would be able to use a built-in electronic dictionary or even an online dictionary without this being noticed by the examiner. There are also other ways for candidates to obtain external assistance. It must be pointed out that this experiment was essentially designed to test the technical feasibility of testing interpreting skills online in synchronous mode rather than to determine the likelihood of candidates cheating in such a testing environment. However, this issue does warrant further investigation.

Summary of candidates' comments

The candidates made some useful comments on this experiment. Some of their comments are as follows:

> "Technical support is very important. Though I did not have any problems, some other candidates experienced some technical problems which unduly slowed down the process."
>
> "Just for real NAATI on-line test which may happen in the near future, in my opinion, central control for every part is essential. It will prevent cheating. Furthermore, if a candidate is disconnected for some reason when the test is in progress, what can the examiner(s) do in order for the candidate to continue the test?"
>
> "It would be better if we could be trained before the test, otherwise it will waste a lot of time to solve technical problems."
>
> "I like this kind of online testing. It is very convenient for candidates and examiners. But some training is important in order to avoid technical problems during the test."
>
> "It would be better if I could take notes on the sight translation material."

Almost all of these comments relate to technical issues and pre-test training. A pre-test test session is therefore essential to help candidates to set up their computers correctly and familiarize themselves with the relevant functions in order to ensure that the test will proceed smoothly. Online technical support is also important in case a candidate experiences a specific problem or is disconnected. One candidate in particular mentioned feeling constrained by not being able to write on the whiteboard when performing sight translation. This reinforces our earlier finding about the use of computer software that allows writing on the screen with a special pen.

Conclusion

This experiment aimed to design and conduct an interpreting test online for multiple candidates synchronously and concurrently using the NAATI test model. The findings of the experiment indicate that, technically speaking, it is

feasible to conduct the interpreting test online in synchronous mode. One of the advantages of conducting online synchronous interpreting tests is the cost saving. Because an instructor can administer multiple tests, this method is cheaper than one-on-one testing. However, the experiment has identified the following constraints and issues of concern:

The first relates to the possibility of cheating. Since candidates sit the test in their own locations without a supervisor being physically present, there is certainly the opportunity to cheat. For instance, a silent helper could be present outside the range of the webcam to assist the candidate with note taking or the meaning of certain words.

Secondly, since the test was administered to multiple candidates concurrently rather than on a one-to-one basis, this automatically gave rise to a number of issues. For instance, candidates interpreted at different speeds, which resulted in the need for candidates who finished earlier to wait for those who took more time. In addition, some components of the test, such as dialogue interpreting, needed to be controlled by the candidates themselves, because candidates were allowed to repeat segments as required. A relevant issue in this regard is that candidates were required to perform certain functions, such as pressing the play button. Although the functions candidates needed to perform were kept to a minimum, they have the potential to distract them from the task of interpreting. In some cases, they could even invalidate the test.

Thirdly, the experiment demonstrates that each candidate needs to be provided with a whiteboard for his/her own use in sight translation, and the examiner should be able to post the test material onto all candidates' whiteboards at the same time. This was not possible in the current experiment, and this technical issue is yet to be resolved by further development of the technology.

Fourthly, a pre-test training session is essential for the examiner to help candidates set up their computers properly and to enable candidates to familiarize themselves with the technical environment. Furthermore, it is necessary to provide online technical support throughout the test. This means that there should be at least two examiners present – one delivering the test in the lecture room and the other engaging in activities such as monitoring candidates in their booths and providing technical support as required. One of the examiners needs to be well versed in the technical aspects of the system.

The solution to these problems lies partly in the further development of the technology to meet the unique requirements of this kind of test. However, even when the appropriate technology becomes available, how to better utilize that technology to conduct online synchronous tests is an essential design issue that warrants further study. The current technology could be used more effectively in a one-to-one test, in which some of the above-mentioned issues may be solved or become less complicated. The technology can also be used in informal tests of multiple candidates in which the issue of cheating is not so sensitive – for example, in simulated tests to prepare candidates for a formal test. It can certainly be used in interpreter training. In addition, the online system may also be appropriate for a simultaneous interpreting test, in which the reading of the test material and the interpreting take place at almost the same time and there is almost no chance for candidates to obtain outside assistance. In terms of the performance of candidates, it is still to be determined whether candidates demonstrate a similar level of performance when being tested online when compared with a conventional face-to-face test. Finally, when more advanced technology becomes available, it will also be worth investigating exactly how many candidates can effectively be tested concurrently without compromising the requirements and effectiveness of the test.

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Appendix A

Questionnaire for Online Synchronous Test for Professional Interpreters

Please indicate, wherever applicable, your strength of agreement by inserting the most appropriate number for each statement using the following scale. If it is not applicable, please write NA:

Strongly Disagree	Disagree	Neither Agree Nor Disagree	Agree	Strongly Agree	
1	2	3	4	5	NA

Pre-test instruction session

		Insert 1-5 or NA
1	I could hear the examiner clearly and follow his instructions.	
2	The functions that I was required to use in the test were simple and easy.	

Additional comments

E.g. what specific problems did you have in this session?

Dialogue interpreting test

		Insert 1-5 or NA
1	I could hear each segment of dialogue clearly.	
2	At the end of a segment, I could replay the segment for a repeat if I did not understand.	Yes/No
3	I did not feel any interference from other participants in the test, including the examiner.	
4	I did not feel any constraints in the test.	

Additional comments

E.g. what specific technical constraints did you experience in the test?

Sight translation test

		Insert 1-5 or NA
1	I could see the posted text clearly and do the sight translation.	
2	I did not feel any interference from other participants in the test, including the examiner.	
3	I did not feel any constraints in the test.	

Additional comments

E.g. what specific technical constraints did you experience in the test?

Consecutive interpreting test

		Insert 1-5 or NA
1	I could hear the speech clearly.	
2	I did not feel interference from other participants in the test, including the examiner.	
3	I did not feel any constraints in the test.	

Additional comments

E.g. what specific technical constraints did you experience in the test?

Ethical questions

		Insert 1-5 or NA
1	I could hear the question clearly.	

2	At the end of the question, I could replay the question for a repeat if I did not understand.	
3	I did not feel any constraints in the test.	

Additional comments

E.g. what specific technical constraints did you experience in the test?

Overall comments and suggestions on this online interpreting test

1. In your opinion, what are the main constraints on the online synchronous test for interpreting?
2. In your opinion, what kind of support is essential to help candidates sit the online test smoothly?
3. Other comments and suggestions