

SMART CLASSROOMS AND SMARTCLASS SOFTWARE IN LEARNING INTERPRETATION AT A UNIVERSITY IN VIETNAM

Nguyen Thi Minh Thao*, Ngo Thi Minh Hai, Vu Hong Quang

*School of Languages and Tourism, Hanoi University of Industry
No. 298 Cau Dien street, Minh Khai ward, Bac Tu Liem district, Hanoi, Vietnam*

Received 04 March 2024

Revised 17 May 2024; Accepted 30 May 2024

Abstract: Recently, smart classrooms (SCs) and technological applications have been paid much attention and invested to create a modern learning environment at many educational institutions, especially at tertiary level. This study aims to explore how SCs and Smartclass (SC) software affect students' interpretation learning at the School of Languages and Tourism (SLT), Hanoi University of Industry (HaUI). Data were achieved through survey questionnaires with 54 English majored students with the interpretation orientation of Tourism and Business and two focus group interviews (one with 5 students and another with 5 lecturers). The questionnaire was adapted and developed from the studies by Li et al. (2015) and MacLeod et al. (2018). The findings revealed students' and lecturers' positive viewpoints on utilizing SCs and SC software in learning interpretation since it helped them increase motivation, sustain autonomous study, develop learning interaction, and most importantly enhance their interpreting skills including time-management, public speaking, deciphering and message delivery skills. The results also indicated some shortcomings and suggestions to improve the quality of teaching and learning at SCs, exploit SC software as well as achieve better learning experience of interpretation. In addition, some implications and recommendations were also discussed.

Keywords: SCs, SC software, interpretation learning, perspectives

1. Introduction

The introduction and development of internet and digital technology brings foreign language learners multiple opportunities to optimize their learning (Nasri et al., 2021). Phoong et al. (2019) and Howard et al. (2017) have highlighted the advantages of technology in education, emphasizing the flexible, individualized, effective, and comfortable learning environment that can draw students' attention and boost their interest in the learning process. Furthermore, educational institutions are now investing more into SCs with the application of Computer Assisted Language Learning (CALL) to increase language teaching and learning motivation. Using language study apps is believed to be one of major beneficial tools for foreign language learning (Sockett, 2014). In fact, digital applications in training for some special majors including interpretation are becoming more and more necessary at universities of foreign studies in Vietnam. At School of Languages and Tourism (SLT), Hanoi University of Industry (HaUI), two SCs with Canadian SC software, a copyright CALL system, were firstly equipped in 2015 to serve for interpretation training courses. After 7 years, those rooms were replaced by the two new ones with upgraded SC software in 2022, each with 35 computers.

* Corresponding author.

Email address: thaontm@hau.edu.vn

The effectiveness of SCs on foreign language learning has also been discussed in some studies such as the ones by Li et al. (2015) and MacLeod et al. (2018). There is little research on the effectiveness of SCs on training interpretation at tertiary level. Therefore, the authors would like to find out the link between SCs and SC software that has been exploited in SLT, HaUI and interpreting learning improvement of English major students. To address this goal, this study answers the following research question “To what extent do SCs and SC software help junior English major students at SLT, HaUI learn interpretation?”.

2. Literature Review

2.1. Smart classrooms and Smartclass software

There are many definitions of SCs; as stated by Phoong et al. (2019) “smart classroom is defined as a classroom equipped with a computer and audiovisual equipment that allows teachers to use a variety of media”. According to Li et al. (2015), the most appealing feature of SCs is their incorporation of interactive technologies, data analysis methods, and context-aware technologies. SCs are often equipped with intelligent internet-connected devices, teaching management applications, and systems supporting interaction in the classroom (Lu et al., 2021).

By using SCs, students are more engaged, more motivated and more excited about learning. Thanks to the interactive smart classrooms, students can gain knowledge in a short time and in an interesting way (Sandhya et al., 2018). However, introduction of SCs does not mean uprooting the conventional ways, rather it means the integration of the old with the new (Sharma & Pattanayak, 2022). Thanks to SCs, an interactive environment is created to increase students’ interest and engagement in learning inside the classroom (Phoong et al., 2019). Kumari and Denisia (2013) stated that SCs help students to set his or her own learning pace. They are encouraged to be interactive, collaborative and creative in their learning. Thus, their learning performance has also improved.

The study of Li et al. (2015) assessed the development and validation of SCs and relevant tools through 10 factors, mostly on Physical Design, Flexibility, Investigation and Learning Experience. MacLeod et al. (2018) have designed 40 questions called PI-SCLE, which include 8 scales: Student Negotiation, Inquiry Learning, Reflective Thinking, Functional Design, Connectedness, Ease of Use, Perceived Usefulness, and Multiple Sources.

SC software is designed by Robotel Inc. in Canada. The information on the SC software is found on Robotel’s website as well as provided by Sao Mai Education Group, the Robotel’s representative in Vietnam. SLT Lecturers who are responsible for teaching interpretation were given guidelines and trained directly by technical staff from Sao Mai Education Group. There are two main applications of SC software including SC Hub and SC Live. Accordingly, SC Hub provides a digital platform with language labs and structured courses. It supports multi-user interaction and allows foreign language teachers to manage students’ learning process. Teachers can assign a flexible blend of classroom and self-access activities. With SC Hub, the chances of drilling on speaking and interpreting are increased with activities such as group conversations or discussions and voice recording. All students can speak simultaneously. Meanwhile, SC Live can be a powerful tool for teachers to monitor and assist their class. By using this application, teachers can monitor all class work activities from their computer and see students’ screens on their computer and manage students’ progress as they complete digital assignments in class. Teachers can also work with a student on an individual basis if they require additional support. SC Live helps teachers to focus student attention and prevents students from off-the-track activities like texting and web surfing. Teachers may find that

activities on SC Hub and SC Live applications are highly motivational for their students – who are completely familiar with modern technology.

2.2. Teaching and Learning Interpretation

According to Weihe (2007), it is necessary for professional interpreters to master such skills as taking notes, memorizing, deciphering and analyzing the target language, and public speaking skills. This was shared by Li (2015). Besides, Lu & Chen (2013) highlighted the importance of short-term memory skills in interpreting performances while Harto (2014) focused attention on note-taking skills. Teaching interpretation requires lecturers to combine many methods in order to make students achieve helpful skills to become interpreters in the future. According to Sumarni (2017), in order to train students to become professional interpreters, it is essential for lecturers to design and organize attractive activities, develop listening, note-taking, deciphering and public speaking skills. Activities can be diverse such as role-plays, individuals' recordings, discussions, reviews, simulations of the actual daily work of an interpreter such as simultaneous and consecutive interpreting. By analyzing the interpreting process, Jing (2013) identified the difficulties and aspects affecting the quality of students' interpreting performances in different stages of interpreting as well as expressed the importance of teaching listening comprehension skills, decoding skills, recording skills and re-expressing skills in interpreting training courses.

2.3. Possible Connection between smart classrooms with Smartclass software and Interpretation Teaching and Learning

Li et al. (2015) mentioned the role of SCs and supportive apps or applications in improving students' learning outcomes, especially in students' personalized learning demand. The flexible and creative combination between technological application and humanities factors is also suggested as a way to design activities at SCs. In addition, MacLeod et al. (2018) tried to gauge the learners' preferences towards studying in SCs. There are some studies conducted by lecturers at SLT on teaching and learning interpretation at the two SCs. The study by Nguyen et al. (2020) focused on shadowing as a teaching tool at SCs to improve students' interpretation performance. Moreover, factors affecting the quality of consecutive interpretation at SCs were discussed in Nguyen et al. (2023). In another context of applying SCs into teaching interpretation, Tran (2019) indicated that although some institutions have internet-connected classrooms to serve for interpretation training courses, traditional classroom models are still used with laptops and speakers as the fundamental teaching tools. Therefore, there is a need to assess the feasibility of SCs as well as SC software in students' interpretation learning.

3. Research Methodology

3.1. Research Site and Participants

The research was conducted at SLT, HaUI where English major students were trained to become future professional interpreters or translators in the fields of Tourism and Business or Science and Technology. The third-year English-major students in seven classes were required to take the Basic Interpretation course in their sixth semester to prepare for their English Interpretation of the chosen field in the next two semesters. For the scope of this study, a random selection was made, picking two out of three classes enrolling in English Interpretation for Tourism and Business. Therefore, only 54 third-year English majors at SLT (11 males and 43 females) participated in the questionnaire. As part of their training, the students had access to SCs and were instructed to use the SC software. In addition, five lecturers

of Interpreting are also the respondents in a focus group interview, providing more valuable insights in the findings of the study.

3.2. Research Instruments and Procedure

The objective of the research was to examine the impact of SCs and SC software on the students' interpretation learning process. A mixed research method was employed in this study, involving both a survey questionnaire and semi-structured focus group interviews (one with students and another with lecturers). The survey questionnaire was developed by adapting factors and items from previous studies by Li et al. (2015) and MacLeod et al. (2018), as well as conducting a thorough literature review. The questionnaire consists of 37 items, categorized into two sections: the physical design of SCs and SC software, and students' learning experience. The physical design section includes two subgroups: the physical design of SCs (8 items) and the ease of use of SC software (6 items). The learning experience section consisted of four groups: learning motivation (5 items), learners' autonomy (5 items), learning interaction (6 items), and improvement in interpretation skills (7 items). Participants provided their responses on a five-point Likert scale, ranging from “strongly disagree” to “strongly agree”.

To gather qualitative data and gain in-depth understanding of students' thoughts, feelings, and personal experiences with SCs and SC software, a semi-structured interview approach was employed. A select group of 5 students were chosen based on their varied responses (3 students) and “strongly agree and agree” responses (2 students) in the survey questionnaire to provide their personal viewpoints through a flexible interview protocol. Due to scheduling differences, a focus group interview was used to optimize the participants' time and encourage greater discussion and interaction. The interview session consisted of open-ended questions and lasted approximately one hour of discussion.

To compare and contrast with students' responses, another focus group interview was conducted with the participation of 5 lecturers who are in charge of teaching interpreting for Tourism and Business.

3.3. Data Processing and Analysis

Data collection involved the use of Google Forms for the survey questionnaire and Excel for data encoding. The survey questionnaire was designed and checked before piloted on-site with 5 students. Then it was adjusted again and distributed to the participants through an online platform. The survey questionnaire was carried out with an agreement from interpreting teachers in advance and then implemented during the break time of interpreting lessons. The collected data was then transferred to an Excel file for encoding. Data analysis was administered with SPSS version 20.0, which employed descriptive statistics to examine the results.

The interviews were audio-recorded, and detailed notes were taken by the researchers to supplement the recordings. The audio recordings were transcribed using a soundsciber program. The detailed transcripts were shared with the interviewees for review and confirmation. The researchers proofread the transcripts to ensure accuracy. Major groups and subcategories were identified by labeling the participants from S1 to S5 and L1 to L5 and coding relevant phrases and terms. Eventually, the findings were collected and discussed by combining the data from both a questionnaire survey and two focus group interviews.

4. Findings and Discussions

The paper shows students' and lecturers' perspectives on how effective SCs and SC software are towards their learning of interpreting at SLT, HaUI. Their evaluation is discussed and presented as follows.

4.1. Physical Design of Smart classrooms

The physical design of SCs is crucial for distinguishing them from traditional classrooms and has a significant impact on students' learning outcomes. The respondents provided feedback on various aspects of the physical design of SCs.

Table 1

Physical Design of SCs

| Items | In the smart classroom environment, I can ... | Mean | SD |
|-------|--|------|------|
| 1 | be equipped with fulfilled furniture. | 4.29 | .90 |
| 5 | easily see teachers' instructions and friends' presentations. | 4.11 | .86 |
| 7 | have spacious space for pair or group discussions. | 4.01 | .87 |
| 6 | have an atmosphere that makes me feel comfortable when studying. | 3.96 | 1.00 |
| 2 | use strong and fast wireless connectivity. | 3.96 | 1.08 |
| 8 | experience a good sound quality. | 3.90 | .87 |
| 3 | have enough workspace to put my learning materials. | 3.90 | 1.06 |
| 4 | flexibly interchange devices when encountering technical errors. | 3.62 | .97 |

Data from Table 1 indicates that the respondents were satisfied with the equipped facilities, including furniture ($M = 4.29$, $SD = 0.90$). They also found it easy to see teachers' instructions and classmates' presentations ($M = 4.11$, $SD = 0.86$). The SCs were perceived to have sufficient space for arranging learning materials ($M = 3.90$, $SD = 1.06$) and supporting group discussions ($M = 4.01$, $SD = 0.87$). Connectivity and a comfortable learning atmosphere were rated positively ($M = 3.96$, $SD = 1.08$; $M = 3.96$, $SD = 1.00$), with room for improvement in device flexibility ($M = 3.62$, $SD = 0.97$). Sound quality was generally satisfactory ($M = 3.90$, $SD = 0.87$).

Insights from the focus group discussions shed light on why the respondents preferred studying in SCs. S1 and S2 shared the view on the convenience of having technological devices readily available in SCs, which eliminated the need to bring their own laptops. Additionally, S4 and S5 mentioned that studying in a clean and modern space heightened their interest in learning.

Despite overall satisfaction, a few concerns were mentioned. Some students felt that the space was not sufficient for teamwork (S1) and lacked room for personal materials (S2). These comments are agreed by 4 out of 5 lecturers. The aisles were too narrow to move around the class (L2 & L5). "I sometimes hesitated about group work in my class due to the inconvenient

space between two rows of seats” (L3 & L4). Besides, lecturers (L1 & L3) showed their desire for better internet connectivity in SCs.

In terms of improving the SCs, some suggestions for improvement included expanding the class space to accommodate both individual and group work and ensuring regular upgrades and maintenance of gadgets, particularly microphones. The issue of hearing one's own resonance during interpretation was raised, which could be addressed to minimize distractions.

Overall, the physical design of SCs was positively received. This result is consistent with the research by Howard and Scott (2017) and Li et al. (2015). However, this paper also pointed out some recommendations on spacious SCs, higher internet bandwidth as well as periodical enhancements on devices’ maintenance, especially on sets of microphones and headphones should be made to further optimize the learning experience.

4.2. Smartclass software’s Ease of Use

Table 2 demonstrates the ease of use of the SC software based on survey questionnaire and interview responses. The respondents found it uncomplicated to use the applications for learning interpretation. The highest mean scores were for storing learning progress (M = 4.16, SD = 0.98) and submitting assignments (M = 4.16, SD = 0.86), followed by task flexibility (M = 4.11, SD = 0.88) and accessing various resources (M = 4.00, SD = 0.97). Participants reported a relatively short learning time for the software (M = 3.88, SD = 0.86). They also found it easier to communicate ideas and discuss using the SC software (M = 3.81, SD = 1.06).

Table 2

SC software’s Ease of Use

| Items | When using SC software, I can ... | Mean | SD |
|-------|---|------|------|
| 11 | quickly receive tasks from the teacher and submit my assignments. | 4.16 | .86 |
| 10 | easily store my learning progress. | 4.16 | .98 |
| 13 | flexibly choose learning tasks to complete. | 4.11 | .88 |
| 14 | access to various sources of learning materials such as pictures, pdf, audios and videos. | 4.00 | .97 |
| 9 | take a short time to learn how to use it. | 3.88 | .86 |
| 12 | explain and discuss my ideas with teachers and other students. | 3.81 | 1.06 |

In the interviews, student participants also provided additional insights. Some found it easy to use the software due to its simplified interface and teacher's instructions (S1&S4). Others appreciated the strong connectivity, which allowed them to access diverse resources and enhance their learning progress (S3&S5). These ideas are quite a contrast to those by lecturers. “It took a long time to assign more interpreting tasks for students while they were doing their assignments” (L1&L2). The ability to store learning progress privately was also valued (S2). “The most useful advantage I think is strong internet connectivity that helps me search for informative resources and materials to practice. So, I feel my learning progress becomes easier and more effective.” (S3) “I feel that it is an intelligent application when I have my own account for saving my progress. Moreover, teachers can use my savings to give me helpful recommendations.” (S2)

While the SC software was highly evaluated for its usefulness in interpretation learning, there are areas that could be improved. Diversifying the reference resources and providing a word searching window were suggested (S1 & S2). However, this is not aligned with lecturers' viewpoints. It is unnecessary to provide different sources of materials for students during their interpreting assignments in the SC software because it reduces their concentration as well as their ability to language transference. Students are advised to prepare the topic and related document at home. (L2, L4 & L5)

In summary, from students' point of view, the SC software was considered to be user-friendly for interpretation learning, but suggestions were made for enhancing its functionality to automatically connect with authentic reference resources, serving for pre-interpreting activities.

4.3. Learning Motivation

Table 3 presents the findings related to learning motivation, derived from survey questionnaires. Firstly, they expressed motivation when accessing a variety of fascinating topics and inspiring content ($M = 4.00$, $SD = 0.91$). Additionally, students reported expanding their knowledge through exposure to different cultures ($M = 3.98$, $SD = 0.78$). Furthermore, participants felt more actively engaged in student-centered classrooms ($M = 3.90$, $SD = 0.78$) and appreciated the ability to practice interpreting tasks without fear of making mistakes ($M = 3.70$, $SD = 0.88$).

Table 3

Learning Motivation

| Items | When learning in the SCs and using SC software, I can ... | Mean | SD |
|-------|---|------|-----|
| 15 | access a variety of fascinating topics and inspiring contents. | 4.00 | .91 |
| 17 | freely explore resources related to my favorable topics on the Internet. | 4.00 | .91 |
| 16 | acquire knowledge from different cultures. | 3.98 | .78 |
| 19 | be active with the student-centered classroom. | 3.90 | .78 |
| 18 | be allowed to interpret many times and choose the best version of interpreting. | 3.70 | .88 |

Consistent with the survey results, student interview responses also showcased students' motivation when learning in the SCs and utilizing the SC software. The feature of unlimited practice, which allows recording, replaying, and reviewing tasks, was particularly highlighted as a motivator by S1, S2, and S3. This is also supported positively by all the lecturers. "*My students freely recorded and chose the best interpreting versions in allowed time* (L2). Students felt unhappy to learn interpreting at traditional classrooms in some cases of room adjustment due to periodical room maintenance (L3). This is agreed by L1&L4. Student participants also expressed enjoyment in being able to search for their favorite topics to read and practice. Furthermore, the combination of tools in the SC software was identified as a factor contributing to students' motivation. S4 mentioned that using multiple tools simultaneously heightened their excitement and motivation to learn. While S5 did not provide a response in this regard, the

overall feedback suggested that learning in SCs and utilizing the SC software had a positive impact on student motivation.

In sum, learning motivation is crucial for students' progress, and the findings from both the survey questionnaire and interviews clearly demonstrated that students feel excited and inspired when learning in SCs with SC software. This is totally compatible with the results in the previous studies by Phong et al. (2018) and Sandhya et al. (2018).

4.4. Learners' autonomy

As can be shown in Table 4, the participants' feedback indicated that learning in SCs and using SC software enhanced their autonomy. They were able to utilize software resources for self-practice ($M = 4.09$, $SD = 0.75$) and store their learning history for review ($M = 4.09$, $SD = 0.89$). The participants also valued having their own space for independent study ($M = 3.96$, $SD = 0.80$) and reported increased self-consciousness and autonomous thinking through their study ($M = 3.92$, $SD = 0.82$). Furthermore, they engaged in deep reflection on their interpreting progress ($M = 3.87$, $SD = 0.86$).

Table 4

Learners' Autonomy

| Items | When learning in the SCs and using SC software, I can ... | Mean | SD |
|-------|---|------|-----|
| 24 | use resources and materials which are already available in the applications to self-practice. | 4.09 | .75 |
| 23 | store my learning history to review whenever I want to. | 4.09 | .89 |
| 21 | have my own space to study independently. | 3.96 | .80 |
| 20 | be more self-conscious and have autonomous thinking with my own study. | 3.92 | .82 |
| 22 | deeply reflect on my interpreting progress. | 3.87 | .86 |

The student interview responses further reinforced the survey findings, with all participants expressing agreement on having their own independent study space (S1, S2). “*I can have my own space for studying*” (S1) and “*I really like my booth with all necessary gadgets for practicing interpreting activities*” (S2). More interestingly, all student respondents highly appreciated the ability to access the SC software anytime for reviewing and recording new and improved versions of their work. All lecturers are in favor of students' opinions in terms of self-practice. However, most of the lecturers shared that they had to manage and monitor students' self-study after class without being paid for it (L1, L2 & L5). It is essential to set up a support team including IT technicians and a class manager during students' self-study after class (L1 & L5).

The researchers also concurred with these ideas, emphasizing the benefits of learning in one's own space, which fosters creativity, concentration, and personalization of study methods. This is highly persistent with findings in Kumari and Denisia (2013).

To summarize, autonomy is essential for university students as they transition to taking greater responsibility for their own studies. The findings clearly demonstrated that students had positive viewpoints on their autonomous improvement while learning interpreting in SCs with SC software. It also recommended to use an upgraded version of SC software for online learning

flexibility and convenience.

4.5. Learning Interaction

The positive statistics and answers of improving interaction in the classroom were considerably evaluated by the respondents.

Table 5

Learning Interaction

| Items | When learning in the SCs and using SC software, I can ... | Mean | SD |
|-------|--|------|-----|
| 27 | receive peer feedback and teachers' assessment. | 4.14 | .68 |
| 26 | discuss my ideas with teachers and other students. | 4.09 | .83 |
| 25 | have an interactive environment that can boost my interest and involvement. | 4.01 | .76 |
| 28 | cooperate with other students when doing interpreting tasks in pairs or in groups. | 4.01 | .92 |
| 29 | acquire various information from teachers and other students. | 3.90 | .80 |
| 30 | feel that teachers and students care about each other. | 3.85 | .91 |

The findings related to learning interaction, as presented in Table 5, indicated that the student respondents highly evaluated the positive impact of learning in SCs and using the SC software on classroom interaction. The highest mean score was observed for the item related to receiving peer feedback and teachers' assessment ($M = 4.14$, $SD = 0.68$), highlighting the importance of feedback in the learning process. Students also expressed confidence in discussing their ideas with teachers and fellow students ($M = 4.09$, $SD = 0.83$). The interactive environment provided in SCs was seen as a catalyst for interest and involvement ($M = 4.01$, $SD = 0.76$), and students actively cooperated with their peers in interpreting tasks ($M = 4.01$, $SD = 0.92$). While student participants appreciated acquiring various information from teachers and classmates ($M = 3.90$, $SD = 0.80$), the perceived care between teachers and students was slightly lower ($M = 3.85$, $SD = 0.91$).

The interview responses further supported the survey findings, with student participants expressing that they felt more connected to their teachers and classmates in SCs compared to traditional classrooms. They appreciated the increased opportunities for receiving assessment from teachers and feedback from peers (S4), as well as the ease of acquiring knowledge and information (S3). Some of them highlighted the benefits of these interactions, such as increased participation and the ability to express ideas more easily (S2, S5). *“Although I have mentioned above that we should have more space for group work, it is true that we can communicate with each other through the headphones and microphone. For instance, I sit in the front row and can still connect with my friends at the back to exchange information.”* (S2). *“I feel like I become more active when learning in an interactive environment. I really like the communication between me, my teachers and my friends through SC Live and easily expressing ideas.”* (S5)

The findings from the lecturer interview also revealed that SC Live is an ideal platform for teacher-student and student-student interactions. It is convenient for students to work with their partners via SC Live (L1). The assigned student can effortlessly share his or her

interpreting version with the teacher and other classmates using headphones (L3 & L5). Nonetheless, sudden internet disconnection sometimes affects the quality of students' pair or group work (L2 & L4).

"Thanks to the feature of Screen Monitoring on SC Live, I can manage my students better and more effectively." (L3). Besides, chatting with a student to remind him/her of assigned tasks without annoying others is in the lecturers' favor (L4 & L5).

In general, respondents agreed that the application of SCs and the SC Live enhances teacher-student and student-student interactions, creating a collaborative environment where information and knowledge can freely be exchanged. This finding was a good match for the one by Lu et al. (2021).

4.6. Interpretation skills improvement

Along with interaction, findings also indicated the statistical evidence to support the idea that students have acquired and enhanced their interpreting skills when they learn in SCs with SC software.

Table 6

Interpretation Skills Improvement

| Items | When learning in the SCs and using SC software, I can ... | Mean | SD |
|-------|---|------|-----|
| 37 | practice consecutive and simultaneous interpretation within the time frame provided. | 3.96 | .75 |
| 32 | improve my public speaking skills confidently. | 3.92 | .77 |
| 31 | enhance my listening comprehension skills. | 3.85 | .73 |
| 33 | have better memorizing skills with details. | 3.85 | .83 |
| 36 | have a better message delivery ability. | 3.83 | .77 |
| 35 | reorganize my ideas more smartly and logically. | 3.79 | .73 |
| 34 | improve my note-taking skills by acquiring various symbols and information arrangement methods. | 3.79 | .80 |

It is clearly seen in Table 6 that the highest improvements were in time management ($M = 3.96$, $SD = 0.75$), public speaking ($M = 3.92$, $SD = 0.77$), listening comprehension ($M = 3.85$, $SD = 0.73$), memorizing ($M = 3.85$, $SD = 0.83$), and then reorganizing skills ($M = 3.83$, $SD = 0.77$). Note-taking ($M = 3.79$, $SD = 0.80$) and re-expressing skills ($M = 3.79$, $SD = 0.73$) had slightly lower scores, indicating areas for improvement.

During the focus group interview, student participants confirmed the improvement in memorizing and note-taking skills. One participant mentioned the complementary nature of these skills, where better memorizing skills facilitated effective note-taking. *"If I have better memorizing skills, I can store information in temporary storage ... Also, if I have good note-taking skills, I can note down the information in a clear and logical way. With this, I can recall what I have heard from the audios, then interpret without the fear of missing information."* (S4). Some other students thought that learning with SC helped them freely listen to the audio/video, stop it to note down figures or key points that they cannot catch (S1, S2, S5).

Nevertheless, the teachers had a different view regarding the improvement in those skills. It seems that some students may have misunderstood the purpose of using SC Hub where they believed that by repeatedly listening to audio content, they can develop their listening skills, memory retention, and note-taking abilities. Instead, factors such as students' personal study habits or practice exercises have a more significant impact on their listening, memorizing and note-taking skills (L1&L3).

The findings also showed that students realized that they improved their time control, which aligned with the highest mean score for time management. Due to the fact that when using SC software to interpret, students are provided 6 minutes for each exercise and "*6 minutes is enough for me to fulfill my interpreting task*" (S1). The teacher respondents also shared a similar perspective that when assigning tasks on SC Hub, they set time limits for each task, which helps students manage their time effectively and enhance their responsive skills (L3 & L4). By working within designated time constraints, students are encouraged to develop their responsive skills, allowing them to make prompt interpretations (L1 & L5). The student participants also mentioned other skills that were enhanced, such as decoding the message and speaking confidently in front of their classmates. "*My interpreting skills have improved considerably. I can feel more confident to speak individually in my booth first and then in front of my class*" (S2); "*I can re-express ideas faster and more confidently in target languages*" (S3).

Among helpful skills for an interpreter, most lecturers agreed that students would develop their deciphering skills the most because "*students can listen to their own interpretation and choose the best version in allowed time*" (L5) and "*students can listen to their peers' assessment* (L2), *directly debating and showing their points* (L3&L4) or *correcting their mistakes in their interpreting tasks afterwards* (L2&L4). Besides, students' ability in public speaking and message delivery are also believed to be improved by both students and lecturers (S2, S3 & S4; L1, L3&L5).

In summary, the findings demonstrated the consistencies between the teacher and student respondents that learning in the SCs and using the SC software effectively boost students' interpretation skills, particularly in public speaking, deciphering skills and message delivery. Time management skills were believed to be well-developed in this paper.

5. Conclusion

In conclusion, this study highlights the positive impact of SCs and the SC software on learning interpretation for third-year English major students. Through a mixed-method approach involving a survey questionnaire and semi-structured focus group interviews, the findings revealed significant perceived improvements in students' learning experience, interaction, autonomy, and motivation when utilizing SCs and SC software. Meanwhile, certain limitations of the applications were also identified.

The physical design of SCs was well-received, aligning with previous research. However, possible recommendations were proposed to further optimize the learning experience, including spacious classrooms, higher internet bandwidth, and regular maintenance of devices such as microphones and headphones. When it comes to SC software, they were found to be user-friendly, other suggestions were also pointed out for better functionality and connectivity with authentic reference resources. Interestingly, the findings underscored the importance of learning motivation and autonomy, as students were more engaged and inspired while learning in SCs. Regarding student autonomy, some recommendations were suggested

including a supportive team for students' self-study at school and an upgraded SC webpage for distance learning. The SC applications, especially SC Live showed the increased student-student and teacher-student interactions which allow personalized guidance and assistance, enabling teachers to address individual learning needs more effectively. Overall, the study demonstrates the opportunities for better interpretation skills, particularly in terms of time management, public speaking, deciphering and message delivery skills.

Further research with larger sample size and inclusion of senior students is recommended to assess the effectiveness of SCs and SC software in obtaining interpretation skills. The study's insights contribute to ongoing efforts to optimize teaching and learning in English language education, particularly in the interpretation field because the ultimate goal is to equip students with the necessary skills and opportunities for successful employment and professional growth in interpretation.

References

- Harto, S. (2014). The practice of interpreting: Errors in note-taking activity. In *Proceedings the 6th International Conference on Teacher Education: The Standardization of Teacher Education: Asian Qualification Framework* (pp. 526-538). Universitas Pendidikan Indonesia Press.
- Howard, J. M., & Scott, A. (2017). Any time, any place, flexible pace: Technology-enhanced language learning in a teacher education programme. *Australian Journal of Teacher Education (Online)*, 42(6), 51-68.
- Jing, M. (2013). A Study of Interpreting Skills from the Perspective of Interpreting Process. *Journal of Language Teaching and Research*, 4(6), 1232-1237.
- Kumari, T. J. S., & Denisia, S. P. (2013). Emerging technology of smart class teaching for secondary school teachers. In *ML Udayakumar, Jayanthi College of Education seminar on current perspective on education* (pp. 229-239).
- Li, B., Kong, S. C., & Chen, G. (2015). Development and validation of the smart classrooms inventory. *Smart Learning Environments*, 2(1), 1-18.
- Lu, K., Yang, H. H., Shi, Y., & Wang, X. (2021). Examining the key influencing factors on college students' higher-order thinking skills in the smart classroom environment. *International Journal of Educational Technology in Higher Education*, 18, 1-13.
- Lu, L. & Chen, Y. (2013). A survey of short-term memory in consecutive interpreting courses. In X. Shao (Ed.), *Proceedings of the 2013 International Academic Workshop on Social Science* (pp. 671-674). Atlantis Press. <https://doi.org/10.2991/iaw-sc.2013.148>
- MacLeod, J., Yang, H. H., Zhu, S., & Li, Y. (2018). Understanding students' preferences toward the smart classrooms learning environment: Development and validation of an instrument. *Computers & Education*, 122, 80-91.
- Nasri, M., Shafiee, S., & Sepehri, M. (2021). An Investigation of Iranian Intermediate EFL Learners' L2 Motivation and Attitude in a Computer-Assisted Language Learning Environment. *Issues in Language Teaching*, 10(1), 355-389, ATU Press.
- Nguyen, T. H., Nguyen, T. M. T., Tran, T. D., & Nguyen, T. T. (2020). Shadowing and Interpreting Performances of English Major Students. *VNU Journal of Foreign Studies*, 36(1), 129-141. <https://doi.org/10.25073/2525-2445/vnufs.4504>
- Nguyen, T. M. T., & Nguyen, T. H. (2023). Factors Affecting the Quality of Consecutive Interpretation at Multi-media Rooms: From Lecturers' Perspective, *VNU Journal of Foreign Studies*, 39(2), 149-163. <https://doi.org/10.63023/2525-2445/jfs.ulis.5069>
- Phoong, S. Y., Phoong, S. W., Moghavvemi, S., & Sulaiman, A. (2019). Effect of smart classrooms on student achievement at higher education. *Journal of Educational Technology Systems*, 48(2), 291-304.
- Robotel. (n.d.). *Robotel*. Retrieved on February 21, 2024 from <https://www.robotel.com/SC-teaching-platform>

Sandhya, G., Singh, D. P., & Saini, S. (2018). Impact of Smart Class Room Learning Environment on Academic Achievement of the Students. *Indian Journal of Society and Politics*, 5(1), 119-122.

Sharma, G., & Pattanayak, B. (2022). A Study on Effectiveness of Smart Classrooms through Statistical Analysis. *Research Journal of Humanities and Social Sciences*, 13(1), 25-28.

Sockett, G. (2014). *New Language Learning and Teaching Environment*. Palgrave Macmillan.

Sumarni, L. (2017). Utilizing audacity audio-recording software to improve consecutive and simultaneous interpreting skills. *IJIET (International Journal of Indonesian Education and Teaching)*, 1(2), 185-193.

Tran, T. T. T. (2019). Teaching interpretation 1 at school of foreign languages: A brief evaluation and some activity examples. *TNU Journal of science and technology*, 199(6), 23-29.

Weihe, A. (2007). Principles and Methodology for Interpreting Training. *Journal of Guangdong University of Foreign Studies*, 3, 5-7.

Appendix 1

***Students’ Perspective on Effectiveness of SCs and SC software
in Learning Interpretation at SLT***

Part 1

Personal Information

Your name:.....

Your age:.....

Your gender:

a) Male

b) Female

Part 2

Survey Questions

Please Tick on Appropriate Boxes (1 to 5) to Indicate the Degree of Your Agreement

| 1 | 2 | 3 | 4 | 5 |
|-------------------|----------|---------|-------|----------------|
| Strongly disagree | Disagree | Neutral | Agree | Strongly agree |

| Items | 1 | 2 | 3 | 4 | 5 |
|---|---|---|---|---|---|
| Physical design of SCs and SC software | | | | | |
| <i>In the smart classroom environment, I can ...</i> | | | | | |
| 1. be equipped with fulfilled furniture. | | | | | |
| 2. use strong and fast wireless connectivity. | | | | | |
| 3. have enough workspace to put my learning materials. | | | | | |
| 4. flexibly interchange devices when encountering technical errors. | | | | | |
| 5. easily see teachers’ instructions and friends’ presentations. | | | | | |
| 6. have an atmosphere that makes me feel comfortable when studying. | | | | | |

| | | | | | |
|---|--|--|--|--|--|
| 7. have spacious space for pair or group discussions. | | | | | |
| 8. experience a good sound quality. | | | | | |
| <i>When using SC software, I can ...</i> | | | | | |
| 9. take a short time to learn how to use it. | | | | | |
| 10. easily store my learning progress. | | | | | |
| 11. quickly receive tasks from the teacher and submit my assignments. | | | | | |
| 12. explain and discuss my ideas with teachers and other students. | | | | | |
| 13. flexibly choose learning tasks to complete. | | | | | |
| 14. access to various sources of learning materials such as pictures, pdf, audios and videos | | | | | |
| Learning experience | | | | | |
| <i>When learning in the SCs and using SC software, I can ...</i> | | | | | |
| 15. access a variety of fascinating topics and inspiring contents. | | | | | |
| 16. acquire knowledge from different cultures. | | | | | |
| 17. freely explore resources related to my favorable topics on the Internet. | | | | | |
| 18. be allowed to interpret many times and choose the best version of interpreting. | | | | | |
| 19. be active with the student-centered classroom. | | | | | |
| 20. be more self-conscious and have autonomous thinking with my own study. | | | | | |
| 21. have my own space to study independently. | | | | | |
| 22. deeply reflect on my interpreting progress. | | | | | |
| 23. store my learning history to review whenever I want to. | | | | | |
| 24. use resources and materials which are already available in the applications to self-practice. | | | | | |
| 25. have an interactive environment that can boost my interest and involvement. | | | | | |
| 26. discuss my ideas with teachers and other students. | | | | | |
| 27. receive peer feedback and teachers' assessment. | | | | | |
| 28. cooperate with other students when doing interpreting tasks in pairs or in groups. | | | | | |
| 29. acquire various information from teachers and other students. | | | | | |
| 30. feel that teachers and students care about each other. | | | | | |
| 31. enhance my listening comprehension skills. | | | | | |
| 32. improve my public speaking skills confidently. | | | | | |

| | | | | | |
|---|--|--|--|--|--|
| 33. have better memorizing skills with details. | | | | | |
| 34. improve my note-taking skills by acquiring various symbols and information arrangement methods. | | | | | |
| 35. reorganize my ideas more smartly and logically. | | | | | |
| 36. have a better message delivery ability. | | | | | |
| 37. practice consecutive and simultaneous interpretation within the time frame provided. | | | | | |

* **Note:** Items 1-8 = Physical design of SCs; Items 9-14 = Ease of Use of SC software; Items 15-19 = Learning Motivation; Items 20-24 = Learners’ Autonomy; Items 25-30 = Learning Interaction; and Items 30-37 = Interpretation Skills Improvement.

Appendix 2

Questions of Student Focus Group Interview

1. Do you enjoy learning in the SCs and using SC software? Why?
2. In your opinion, what are the advantages of SCs and SC software?
3. What have SCs and SC software helped you in learning interpretation?
4. What suggestions do you want to give to improve the effectiveness of SCs and SC software?

Appendix 3

Questions of Lecturer Focus Group Interview

1. Do you think that your students enjoy learning in the SCs and using SC software? Why?
2. In your opinion, what are the advantages of SCs and SC software?
3. What have SCs and SC software helped your students in learning interpretation?
4. What suggestions do you want to give to improve the effectiveness of SCs and SC software?

PHÒNG HỌC THÔNG MINH VÀ PHẦN MỀM SMARTCLASS TRONG VIỆC HỌC PHIÊN DỊCH TẠI MỘT TRƯỜNG ĐẠI HỌC Ở VIỆT NAM

Nguyễn Thị Minh Thảo, Ngô Thị Minh Hải, Vũ Hồng Quang

*Trường Ngoại ngữ - Du lịch, Trường Đại học Công nghiệp Hà Nội,
Số 298 đường Cầu Diễn, phường Minh Khai, quận Bắc Từ Liêm, Hà Nội, Việt Nam*

Tóm tắt: Trong những năm gần đây, phòng học thông minh và các ứng dụng công nghệ rất được quan tâm và đầu tư nhằm tạo môi trường học tập hiện đại tại nhiều cơ sở giáo dục, đặc biệt là cấp đại học. Nghiên cứu này nhằm mục đích tìm hiểu ảnh hưởng của lớp học thông minh và phần mềm Smartclass (SC) đối với việc học phiên dịch tại Trường Ngoại ngữ - Du lịch (SLT), Trường Đại học Công nghiệp Hà Nội (HaUI). Dữ liệu được thu thập thông qua bảng câu hỏi khảo sát với 54 sinh viên chuyên ngành Ngôn ngữ Anh định hướng học phiên dịch Du lịch Thương mại và 2 buổi phỏng vấn nhóm (1 buổi với 5 sinh viên và 1 buổi với 5 giảng viên). Bảng câu hỏi được điều chỉnh và phát triển từ các nghiên cứu của Li và cộng sự (2015), và MacLeod và cộng sự (2018). Kết quả nghiên cứu cho thấy sinh viên và giảng viên có cái nhìn tích cực về việc sử dụng lớp học thông minh và phần mềm SC trong học môn phiên dịch vì sinh viên có thể tăng hứng thú, phát huy khả năng tự học, tăng cường tương tác và quan trọng nhất là nâng cao kỹ năng phiên dịch, bao gồm: kỹ năng quản lý thời gian, kỹ năng nói trước công chúng, kỹ năng giải mã và truyền đạt thông tin. Kết quả cũng chỉ ra một số tồn tại và đưa ra một số đề xuất nhằm nâng cao chất lượng dạy và học tại lớp học thông minh, khai thác phần mềm SC cũng như nâng cao trải nghiệm học tập phiên dịch của sinh viên. Ngoài ra, nghiên cứu cũng đưa ra một số gợi ý và khuyến nghị cho các nghiên cứu tiếp theo.

Từ khóa: lớp học thông minh, phần mềm SC, học phiên dịch, góc nhìn