

An Investigation Into Short-Term Memory Training in Interpreting Course at a University in Vietnam

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Abstract—Short – term memory (STM) is extremely crucial in an interpreter’s task since the message must be conveyed quickly from the source language to the target language. Hence, the interpreter must have high concentration once he gets involved in the interpreting process. STM is often ignored in interpreting modules since students are required to self – practice at home and other necessary skills are more focused. However, several language schools still embed STM activities in the course due to students’ need analysis. This paper aims at evaluating STM training in interpreting subject at a university in Viet Nam. Besides, the students’ perception of STM is also investigated. To collect data for analysis, the researcher used semi-structure interviews with 20 students at intermediate and advanced levels in English. The results of the study indicated that STM had positive effects on students’ interpretation and the majority of students showed their positive attitudes toward STM training.

Index Terms—short – term memory, short-term memory training, interpreting, investigation

I. INTRODUCTION

Interpreting or oral translation has a long history and plays a vital role in facilitating communication between language speakers from different parts of the world. Having emerged for a long time, interpreting is the common language to assist those who do not share the same language. Interpreters would be individuals who are raised in a bilingual environment whose parents live in the border areas of two nations. The first interpreting task was implemented in diplomatic tasks by Egyptian Pharaohs while carrying out the mission of cooperation with counterparts across Asia, Europe and Africa (Su, 2019). It was also documented that slaves or royal members could play the roles of interpreters. However, the development of interpreting has flourished as a profession since the 20th century. World War I has been marked as the pioneer event of conference interpreting when the Peace Conference was held in Paris with the participation of various nations (Baigorri-Jalón, 2005). Since then, interpreting has been employed in all aspects of life ranging from the administration to military. Today, interpreting is trained in parallel with language education at foreign language institutions.

Learners would be equipped with necessary skills and STM is not an exception in the interpreting training courses. STM is of great importance in assisting interpreters to gain the initial speech before it is analyzed and switched to the target language. A good STM is required if interpreters want to conquer the interpreting process (Lu & Chen, 2013). Hence, regular STM trainings should be practiced so that the interpreters would be familiar with various categories of words, especially the terminologies in other sectors. However, Rasouli (2022) claims that teachers and instructors have ignored training students’ STM when it comes to interpreting subject which results in students’ competency of oral translation. Instead, students are asked to focus more on listening, note-taking, and switching the source language into the target language.

Teaching consecutive interpreting in Vietnam is practiced at several universities with English majors. In the context of School of Languages and Tourism – Hanoi University of Industry, skills like listening comprehension, memorizing, note-taking and presentation are more focused to train students because these skills are necessary for interpreters (T. M. T. Nguyen & Nguyen, 2023). In contrast, by unofficially interviewing the teachers who are responsible for teaching interpreting subjects at School of Foreign Languages, Thai Nguyen University, the researcher has noticed that apart from other skills, STM activities are incorporated in each interpreting lesson to boost students’ capacity of memory before an oral translation is produced. The current study is driven with two following research questions:

- *To what extent does STM affect third-year English majors in learning interpreting?*
- *How do students respond towards the use of STM in learning interpreting?*

II. LITERATURE REVIEW

A. Interpreting

The term interpreting or oral translation is believed to appear earlier than written translation. Interpreting is defined as an activity taking place once an individual interpret what he/she hear from the source language to the target language

through utterance (Phelan, 2001). In a different sense, interpretation is described as verbal translation which involves the process of encoding and decoding the speech (Petrescu, 2014). According to Jungwha (2003), interpreting can be broadly referred to as the comprehension of spoken language and the expression of such insight into another language. Although different scholars hold various opinions on interpreting, the similarity between these is connected to the switching information from source language to target language.

When it comes to the use of technical language, such as when interpreting or translating, people frequently use the term “translation” to refer to both processes interchangeably. These phrases, however, are different and should not be used synonymously. According to Munday et al. (2022), there are two distinct occupations with distinct natures, functions, and skill requirements that deal with different linguistic mediums. Translation specifically refers to “an operation performed on languages: a process of substituting a text in one language for a text in another language” (Catford, 1965). Therefore, translation involves dealing with the written medium of language and is not executed in real-time. When a written message needs to be rendered into another written language, a translator, rather than an interpreter, is employed. Conversely, interpreting refers to the verbal form of translation in which spoken utterances or written texts are rendered orally. Pöchhacker (2014, p. 11) defines interpreting as “a form of Translation in which a first and final rendition in another language is produced on the basis of a one-time presentation of an utterance in a source language”. Interpreting is characterized by being performed in real-time and for immediate use. It is essential to note that the final product of interpreting is always in the spoken medium of the target language, regardless of whether the source text was oral or written.

Being aware of the similarities and differences between translation and interpreting, it is a shortage if the various types of interpreting are not discussed. Types of interpreting are perhaps more diverse than written translation based on the purpose of the interpretation tasks. While Phelan (2001) divides interpreting into 10 categories consisting of conference interpreting, simultaneous interpreting, consecutive interpreting, whispered interpreting, bilateral interpreting, sight language interpreting, telephone interpreting, television interpreting, and video conferencing interpreting, Q. H. Nguyen (2007) mentioned 5 main types of interpreting which are whole speech interpreting, community interpreting, court interpreting, escort interpreting, and sight interpreting. Nevertheless, consecutive and simultaneous interpreting are the most common types being explored by researchers.

In consecutive interpreting, the work of interpreter will finish after the speaker because he/she has to listen to the speech and take note at the same time before delivering the speech in the target language (Phelan, 2001). Several skills are essential in consecutive interpreting including memory, concentration, understanding, note-taking and public speaking. Among these skills, note-taking is believed to be the most important one as the interpreter could not remember all information provided by the speaker without jotting down the note. Practitioners often use symbols and abbreviations to construct their own notes for the recalling process.

Simultaneous interpreting is thought to be tougher than consecutive interpreting in a sense that interpreters have to listen to the speech and interpret for the audience at the same time (Phelan, 2001). Hence, note-taking would be impossible in this type of interpreting. Unlike consecutive interpreting, special devices in the booth are necessary such as headphones with micro and a monitor of volume, mute buttons, unmute buttons and relay button. The function of the relay button is to allow interpreters to listen to an interpretation from another booth at the conference room. Besides these special devices, interpreters can use high tech applications for the search of terminological words/phrases in a fast way. The maximum time for simultaneous interpreters is 30 minutes because of the high level of concentration meaning a pair of interpreters are often ordered in one booth to support one another.

Sight interpreting is another type of interpreting which consists of reading a document and orally rendering its content (Naseri, 2017). In this mode, the interpreters are asked to articulate everything presented in the text, including signatures, seals, dates, and numbers. Additionally, the interpreter would go beyond the context by specifying the location of the message in the text, such as the upper left corner of the right margin. Moreover, the interpreters can evaluate and convey whether the text is legitimate to the audience. Phelan (2001) has described that sight interpreting can occur in various setting like business meetings or court proceedings. It is true that time to examine the document in detail required by the interpreter during sight interpreting is appropriate.

B. Short – Term Memory

STM represents various memory systems which are responsible for holding onto small pieces of information or memory chunks for a brief period of time, typically lasting up to 30 seconds (Cascella & Khalili, 2023). The capacity of time duration in STM is from 15 to 30 seconds which involves the process of rehearsal in the brain (Shiffrin, 1973).

Encoding and decoding are the two important stages in the process of STM (Shiffrin, 1973). There are three primary coding methods in STM: acoustic coding, visual coding, and semantic coding. Acoustic or phonemic coding involves remembering and understanding information heard. Visual coding entails storing information as images rather than sounds, particularly applicable to nonverbal items. Semantic coding involves assigning meaning to information, connecting it to abstract concepts. These characteristics indicate that STM operates independently of sensory and long-term memory stores. The following chart shows these coding types:

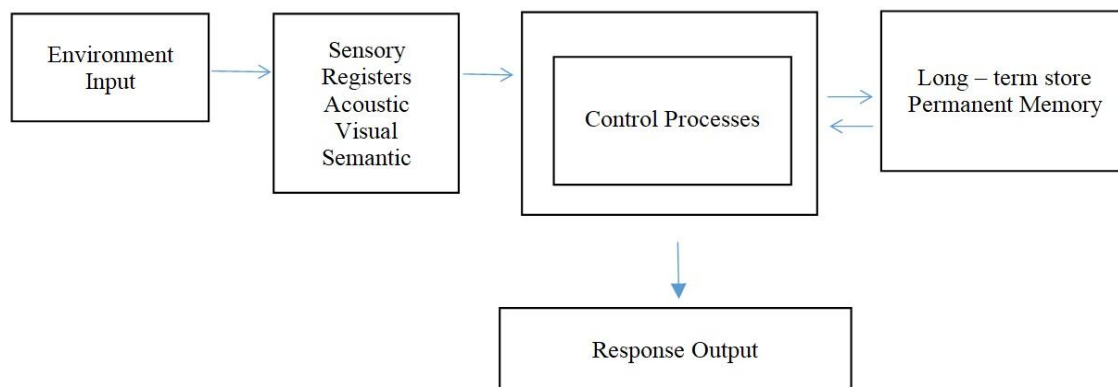


Figure 1. Information Processing Model (Shiffrin, 1973)

According to the model, STM is obviously considered as a temporary storage in the brain which is also referred to as working memory (WM). However, the different feature between STM and WM is that WM is able to keep the information in a temporary time that manipulation and update can occur (Logie, 2003). Similarly, Lu and Chen (2013) agree that WM play role as a maintenance system for visual information which is beneficial for further tasks.

In addition, the above model also shows the interaction between STM and long-term memory (LTM). Following this model, both STM and LTM are active when receiving input from the surrounding. Before being switched to STM, the information is categorized at various forms such as sensory registers, acoustic, visual, or semantic ones. After STM is activated for a certain amount of time, the information will be either moved to LTM or response output based on the current situation. For instance, in interpreting process, output will be produced after the STM stage for the urgent need of audience. In contrast, such information will be transferred to LTM stage when students must revise the lesson for exams.

Although STM plays a supportive role in producing effective oral translation, several exercises aiming at strengthening it are proposed by Robert (2014). One commonly employed exercise is shadowing which is extensively used in interpreting courses, particularly simultaneous interpreting. Within this exercise, the interpreters repeat the speakers' words verbatim in the same language, compelling these words to store and recall different sounds, words, and information in a certain amount of time. Another exercise for practicing STM is listening for gist which is designed to aid the interpreters in recalling information later. The interpreters will listen to a descriptive or narrative text of about 100 words and try to respond to "WH" questions. Next comes visualization or creating mental images exercise. Mnemonic devices are recommended to visualize description and later facilitating recall. There is no doubt that visualization plays a useful role in interpreting course because sometimes the interpreters may need to describe what a witness has observed in court interpreting. Finally, another type of memory training is called segmentation, where the interpreters will break down the chunks of information into smaller, and more manageable parts. This method enhances the retention and recall of the information, so interpreters find it easier to do their job.

Regarding interpreters, STM is of great importance in dealing with lots of situations where memory is the key component to produce the oral translation. The brain's part which is responsible for controlling the utterance as well as comprehension will be activated at the highest mode during the process of interpreting. Hence, it would be more stressful when interpreters have to sit in the booth to carry out the simultaneous interpreting job (Bratel et al., 2020).

STM does play a vital role in the interpreting process. Specifically, STM processes speech sounds to get an insight into the overall message and assist the storage and recall of input information (Robert, 2014). When STM is poor, there is a risk of eliminating redundant words such as qualifiers, modifiers, subordinate clauses, and even entire sentences. Inadequate STM also causes serious consequences resulting in saturation. This happens when the source and target languages exhibit significant syntactic differences. Hence, interpreters are forced to store a substantial amount of information for expanding periods before reformulating the information. This saturation can also lead to the lack of sufficient memory capacity to successfully complete the task. Furthermore, the higher the information density is found in the source language, the more challenging it becomes for the interpreters to memorize all the information chunks.

III. METHODOLOGY

The participants in the current study were 90 third-year students at a language school in Viet Nam, who were asked to fill out questionnaire. Then 10 random students from these participants were chosen to take part in individual interviews. The reason for selecting these students was because they were enrolled in the module of interpreting with the experience of using STM in interpreting from source language to target language. To gather data, the researcher developed a questionnaire to determine students' perspective and attitude toward using short-term memory. In the study, interviews were mostly conducted by interviewer's personal experience in using short-term memory in interpreting and other related references. The interviewees were expected to share some thoughts about their usage of short-term memory if it was useful or not.

The research involved two main phases with questionnaire being distributed first and semi-structured interview came afterward. First, the researcher distributed the questionnaire to 90 students who were enrolled in the interpreting subject. Students were guided how to answer all the questions in the questionnaire before spending time to dig into each question. These questions examined students' opinions on different aspects of STM and students' own evaluation on the effectiveness of STM in the course. Then, the researcher used simple sample method to withdraw 10 students from the participants in the quantitative phase to conduct semi-structured interviews so these individuals would provide deeper thinking about the benefits as well as the strains of STM. A private and quiet place was chosen to interview each participant individually. The researcher recorded all the interviews with the agreement of the participants.

To analyze the data collected from the questionnaire, a method of mathematical statistics was employed. Descriptive statistics were used to facilitate the grouping and visual presentation of the research findings. With regard to the semi-structured interview, the researcher transcribed the utterance and wrote down the codes before grouping these into themes.

IV. RESULTS AND DISCUSSION

A. Results From Quantitative Phase and Discussion

(a). Students' Confidence in Using Short – Term Memory

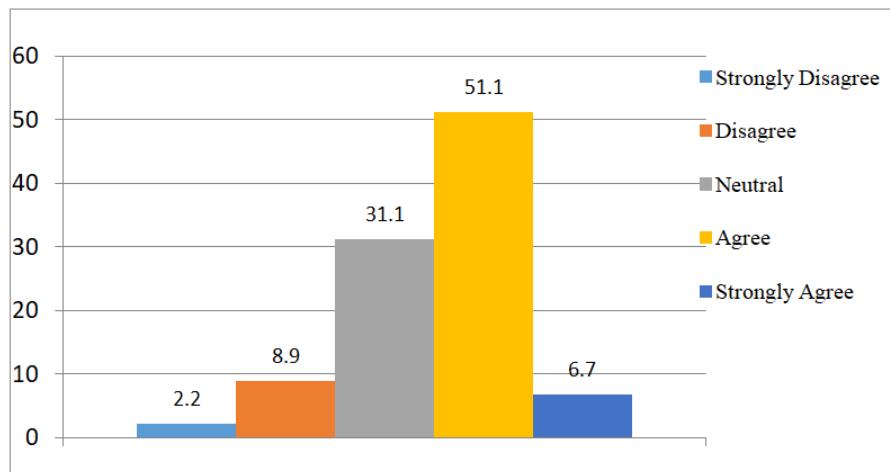


Chart 1. Students' Confidence in Using STM
(I feel more confident in learning Interpreting when using STM.)

It is evident from the chart that 51.1% of the students expressed agreement with the idea that utilizing STM techniques enhanced their self – confidence in learning environments. A smaller percentage of 6.7% explicitly acknowledged experiencing increased confidence while employing STM in the classroom. Nevertheless, a significant portion, one-third of the students, remained uncertain when being asked about this subject. Additionally, less than 10% of the participants disagreed when questioned about the statement.

(b). Students' Self-Evaluation on Enthusiasm in Practicing Short – Term Memory

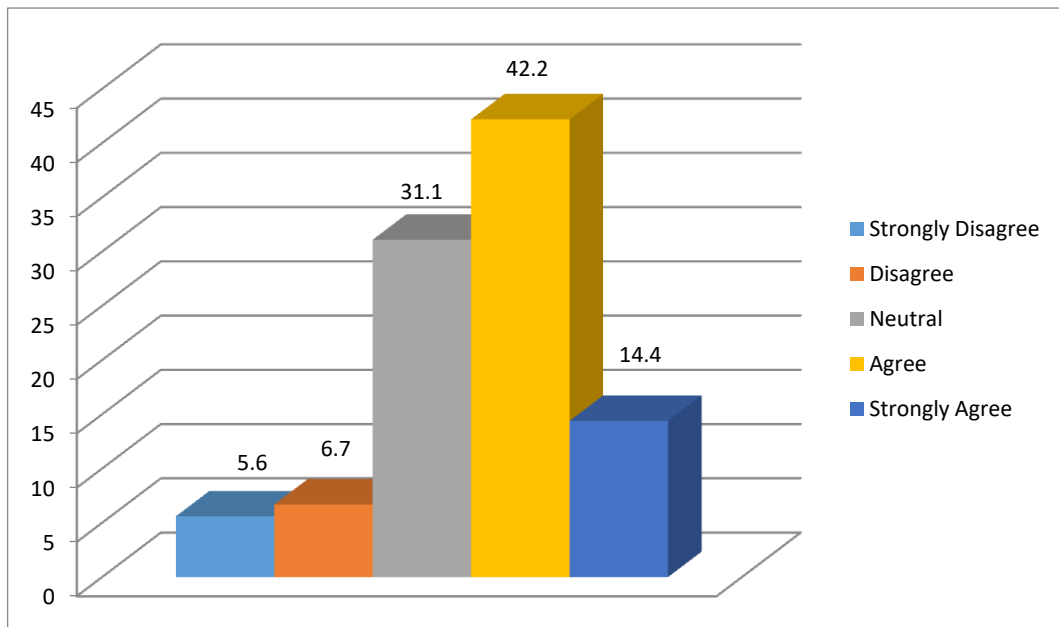


Chart 2. Students' Self-Evaluation on Enthusiasm in Practicing STM
(I am interested in STM practice the most in the class of learning interpretation.)

The chart indicates that 56.6% of students showed a strong preference for applying STM in the interpretation practice process. In comparison to the initial chart, the percentage of students maintaining a neutral stance on the improvement of confidence and enjoyment remained consistent at 31.1%. Despite these positive indicators, 12.3% of students did not focus on the process of practicing STM.

(c). Students' Memorization Capability After Learning Short – Term Memory

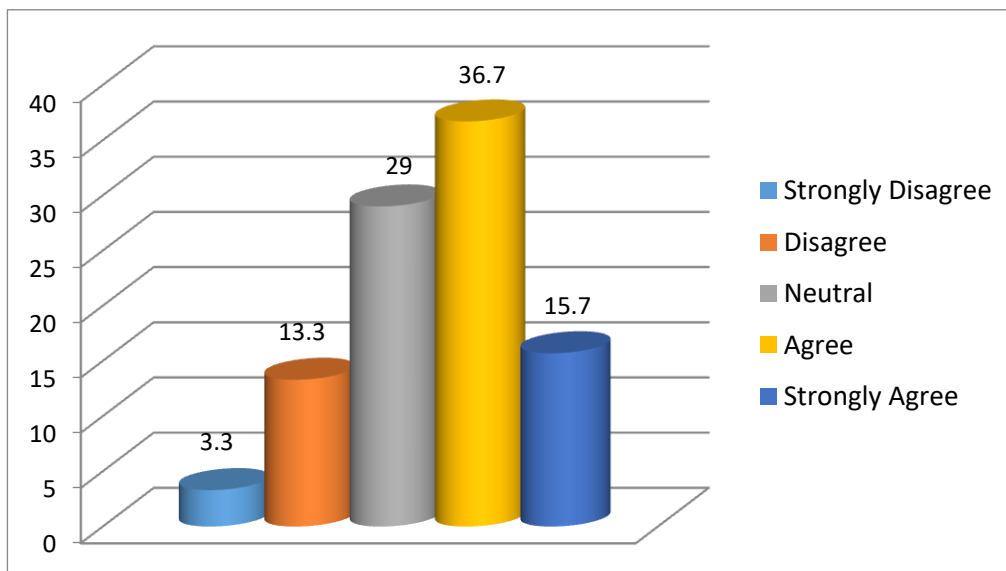


Chart 3. Students' Memorization Capability After Learning STM
(I am able to remember information better than before I learned to improve my STM.)

Undoubtedly, 52.4% of students expressed that their memory's capacity has been remarkably improved. However, the percentage of students who showed their disagreement with this statement was 16.6%, whereas, 29% of them were not sure if they could remember information better than before practicing their STM or not.

(d). Student's Ability in Repetition

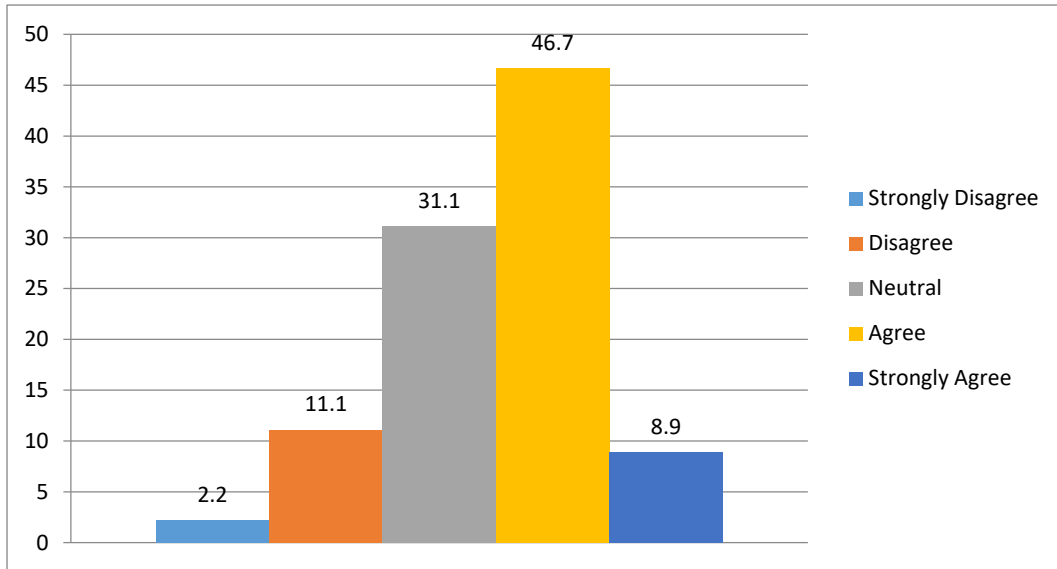


Chart 4. Student’s Ability in Repetition
(I can repeat the information faster than I was before I practiced using STM.)

As can be seen from the column chart, more than half of participants (51.6%) thought that they could repeat utterances more quickly than the period when they did not get involved in STM practice process. Similarly, one third of students hesitated about the idea of getting progress in repeating information immediately. However, 13.3% of them kept the negative attitude toward this statement.

(e). Students’ Ability in Interpreting Sentence by Sentence

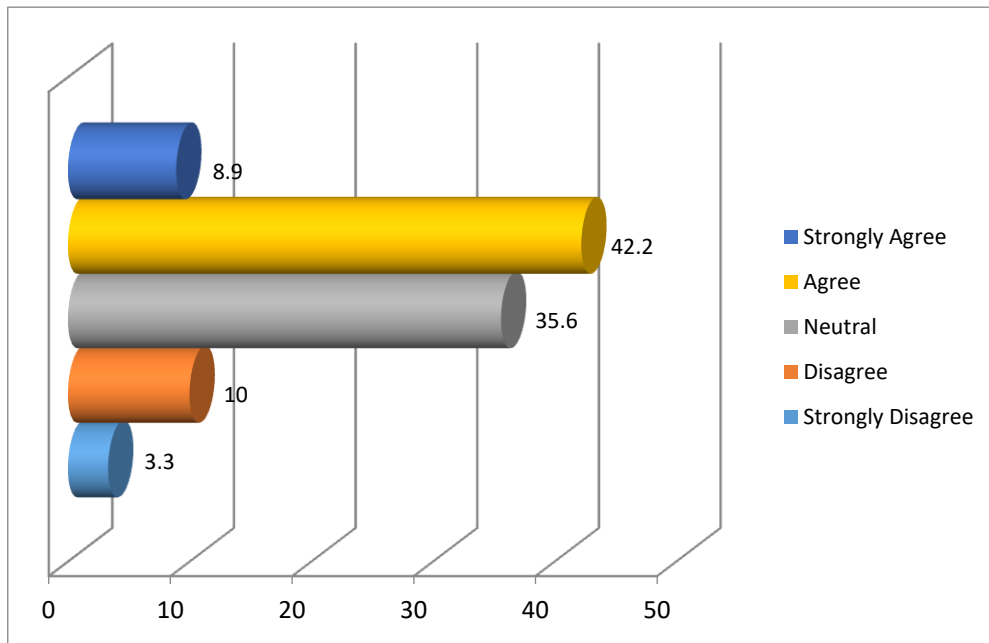


Chart 5. Students’ Ability in Interpreting Sentence by Sentence
(I am able to interpret sentence by sentence faster than I was.)

It can be clearly seen that the percentage of students who showed signs of improvement in interpreting speed was 51.1% in which 8.9% of those that strongly agree. In contrast, 13.3% of students did not state that they could interpret sentences faster than themselves before learning interpreting while 35.6% of those who did not know whether they do better or not.

(f). Students’ Self-Evaluation in Learning New Vocabulary and Structures

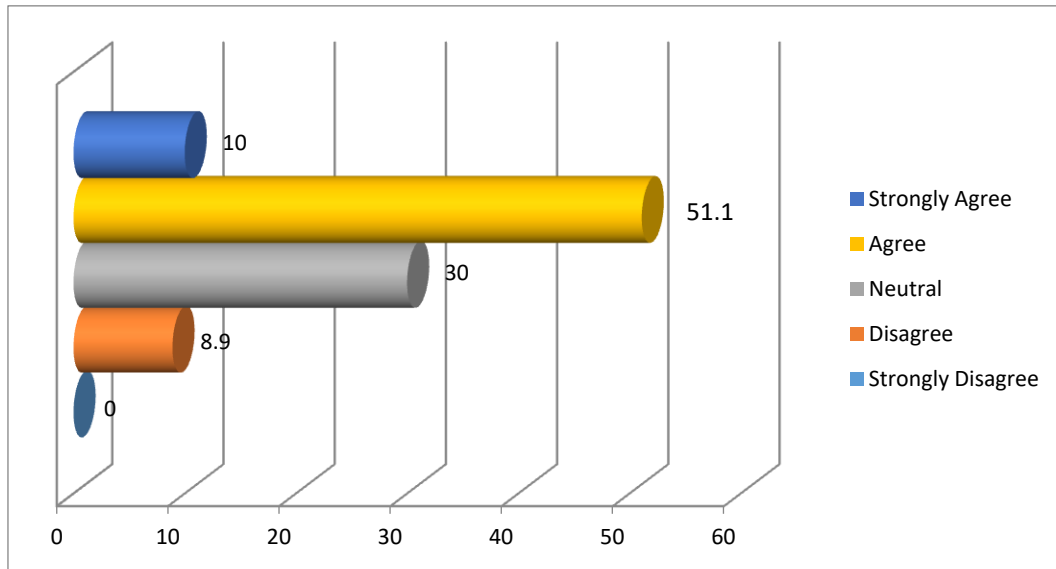


Chart 6. Students' Self -Evaluation in Learning New Vocabulary and Structures
(I find it's easier to learn new vocabulary and structure equivalence via practicing STM.)

When being asked about vocabulary and structures, there were 61.1% of students indicated that STM practicing was a good way to learn English new words and structures. Nevertheless, 30% of them showed that they were neutral. There were 8.9% of the students in the class expressed the negative opinion about this statement.

(g). Students' Self-Evaluation on Improvement in Other English Skills

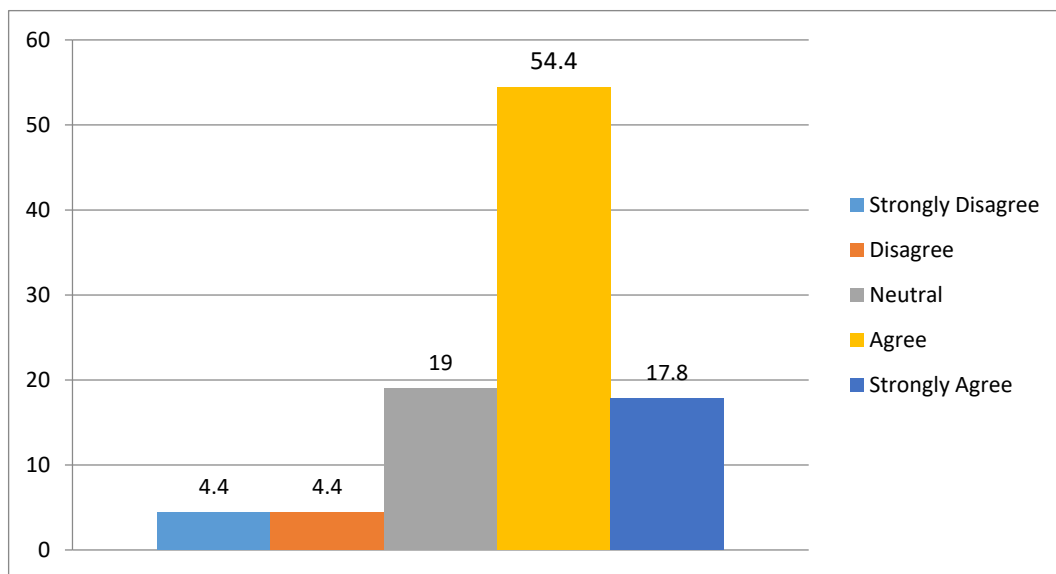


Chart 7. Students' Self -Evaluation on Improvement in Other English Skills
(Practice using STM helps me improve other English skills such as listening, speaking, writing etc.)

The chart's figures showed that the total proportion of students who thought practicing STM memory assists them to enhance other English skills were 72.2%. Although 19% students kept their neutral opinion about this statement, the figure for disagreement was 8.8% in which there was half disagreed and half of them expressed strongly disagree with the idea.

(h). Students' Self-Evaluation of the Effectiveness of Short-Term Memory

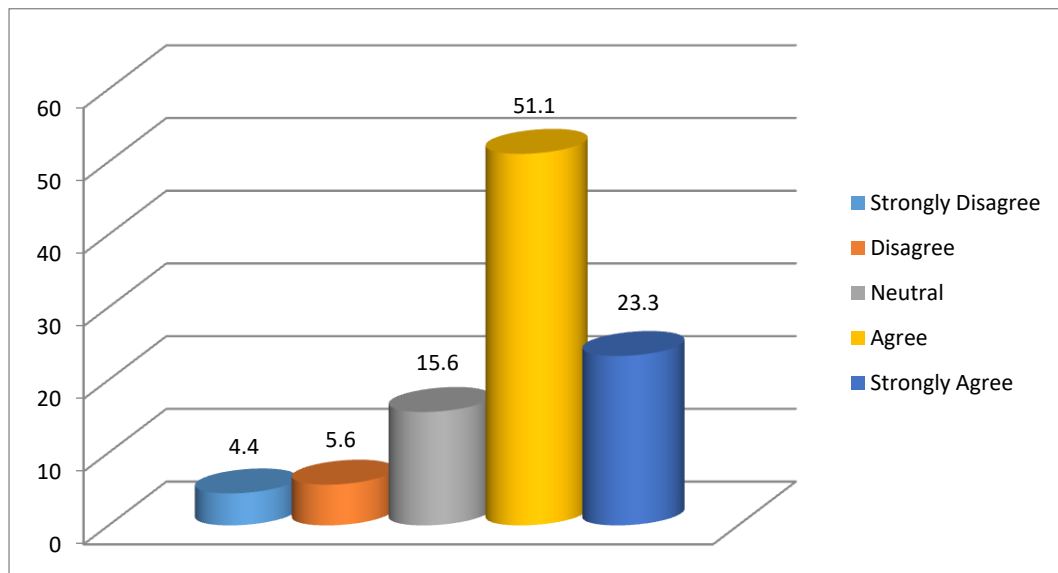


Chart 8. Students' Self-Evaluation of the Effectiveness of STM
(Overall, I find learning short – term memory in interpretation I helps me improve my interpretation skills.)

The chart shows that nearly 75% of participants agreed that their interpretation skills have been improved significantly via a process of using STM. However, 10% of students could not take advantage of using STM in learning Interpreting. On the other hand, there were no comments coming from 15.6% of students on whether STM helped them or not in interpreting.

The results from the quantitative phase in this study are similar to the findings of Lu and Chen (2013). Regarding the similarity, both studies show that STM training improves interpreting skills. In addition, STM is reported to improve students' interpreting quality by the two studies. Compared to the procedure of information processing proposed by Shiffrin (1973), it is clear that students are aware of the importance of STM via various listening activities through audio and video files. In the interpreting process, the sense of audition and vision are extremely crucial since these assist students to move to the remained stages in the interpreting process.

B. Results Collected From Interview and Discussion

(a). Motivation

One interviewee in the current study believed that both STM and LTM motivated him to master and gain confidence in the subject. The excerpt below showed his opinion:

From my point of view, I think STM makes me practice more and it is kind of easier that LTM and STM helps me improve my English skills especially my listening skills and it also makes me confident in communication when I speak to some foreigners. But sometimes STM which is used in a short time, and I have to speak immediately after the sentence. And, I have to remember a lot some kind of statistics or numbers. It is too difficult to remember. In general, STM is also a good preparation for me to be more confident in the next subjects. (S1)

Simultaneously, a student felt the improvement in interpreting flexibility when working with STM. The script below illustrated her opinion:

At first, I felt it was difficult to learn, but I have realized that it's very useful for me. I can improve my listening skill and interpreting skill and learn more vocabulary. Besides, it is extremely useful for me to prepare well for Interpretation 2. Thanks to learning short – term memory, my memory is better and better so that I can remember more things very quickly. Learning Short – term memory helps me know how to interpret flexibly and naturally than before. I hope that the teacher will give us more methods and assign more homework for students so that we can practice at home.

(b). Inspiration and Accent Recognition Challenge

Inspiration and accent recognition challenge are the good and bad point mentioned by one participant. She said:

Well, practicing STM brings huge benefits which I can change my brain everyday so I can remember better. It can help me have a good mind for the next term preparation. However, a big problem of STM is I am quite unfamiliar with various accents of different people. It's quite difficult to understand what they are talking about. Another problem is the speed. It's quite challenging and hard. (S8)

Additionally, there was one student asserting that she encountered the problem of listening which negatively resulted in her STM. She shared:

Among the four skills in English, I find listening the most difficult one. I have tried my best to practice

listening, but I still struggle with various accents. Thus, my STM in listening and interpreting is not good. I don't know what to do. (S6)

Apart from listening, public speaking skills were proposed to be as important as STM. One student stated:

I find that learning short – term memory is very interesting and effective. Personally, I am very interested in practicing it. After learning short – term memory in Interpretation 1, I can remember many new words and I also feel more confident when I interpret a story or a text. To improve STM, I practice through stories or texts, listen to more videos and list things on a piece of paper. However, it's sometimes very hard for me to interpret immediately due to new words.

The result of the interview indicates that in general, short – term memory assists students a lot in not only interpreting but it also improves other related skills such as speaking and listening competence. Short – term memory training plays a vital role for students to study interpreting. The training brings some benefits for students' minds which helps them memorize things better than it used to be. However, students admitted that they have had difficulties in practicing short – term memory as the accent and fast-speaking speed of speakers. In conclusion, thanks to short – term memory training process, students' English proficiency has been improved. It is considered as a base in which they can prepare better for the next subjects.

V. CONCLUSION

Based on the analysis of the collected data, it is concluded that the third – year English students at a language school in Viet Nam are interested in STM training and willing to improve their memory as much as possible. From the students' opinion, not only interpretation skills but also other English skills such as listening, speaking skills have been improved via training STM. This is true because listening and speaking are the most essential skills for interpreters which decide the success of the job. For example, students are good at listening but in public speaking, they are not able to convey the message to the audience completely. Moreover, most students confirmed that their teachers played a vital role in helping them practice STM in the class via videos or mp3 files. This, perhaps, is the useful method which captivates students' attention and inspires them to enjoy the lesson. In addition, it is recommended that teachers design more worksheet activities to keep students busy like bees; thus, the motivation would be activated at the maximum level. However, there were a few students who still struggled with STM since they had some problems with listening skills as well as the speakers' voice was so unfamiliar, and the speed was extremely fast. To deal with this problem, it is suggested that teachers should incorporate more listening audio or video files with various accents for familiarization. Besides, students must spend more time listening to these accents extensively; for example, playing a TED TALK video on YouTube while cooking would be a solution for this issue. This would also be beneficial for them to get to know various people in different corners of the world speak English as well as remember a lot of information; hence, students' interpreting skills will also be improved. It is hoped that the findings of the current study will contribute to the field of interpreting in general and STM in particular.

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