

Applying Mnemonic Devices to the Teaching of Interpretation--A Taiwan Case Study

運用記憶力訓練於口譯教學---台灣個案
研究

Sheng-Jie Chen

1. INTRODUCTION

This article begins by briefly reviewing the literature on mnemonic devices in general and strategies for enhancing the memory of student interpreters in particular. It then introduces the five memory strategies that were used in the study: pegging, pictorialization, the location strategy, absurdity, and gist words.

The main body of the article is a report and discussion of participants' reactions to learning to apply these memory strategies. Following the teacher-research paradigm, I investigated the classes that I taught during an interpretation course at a university

of science and technology in Taiwan and used qualitative research methods to collect and analyze the data. The participants consisted of the students of the course and myself, the instructor, who served as a participant observer researcher. The data included both oral and written productions.

Finally, in light of the data offered by the study, this article offers some suggestions for the improvement of memory training on an interpretation course. These suggestions cover both the specific memory enhancement strategies described in this article and more general concerns. I hope that the results of the study will shed light on the research in both short-term memory enhancement and memory enhancement in interpreter training.

2. LITERATURE REVIEW

Mnemonic devices may enhance short-term memory. Mnemonic devices, also called memory strategies, are techniques that people use to enhance their short-term memory and are widely believed to be effective. They are said to be effective in that they enhance the encoding and retrieval of information (Biehler & Snowman 1993). Since mnemonic devices are taken to be effective in enhancing short-term memory, and memory plays an important role in interpreting (Lambert, 1991; Schweda-Nicholson, 1990), I intended to investigate how the two may best be related. This article, however, does not deal with the traditional mnemonic

devices such as rhymes, acronyms, acrostics, and pegwords which have been discussed in detail by Biehler and Snowman; rather, it deals with mnemonic devices that are more specifically relevant to interpreter training.

3. RESEARCH METHODOLOGY

Participants, who volunteered to contribute data to this study, consisted of forty-four Taiwanese senior students in two classes who registered for a Mandarin Chinese and English interpretation offered at a university of science and technology in Taiwan in spring, 2000. These participants, aged twenty-two to thirty-five, had all graduated from five-year vocational colleges with diverse academic backgrounds before entering the department of applied foreign languages at the university. Twenty of them were men and twenty-four were women. All were in good health. Their mother tongue was Mandarin Chinese and they had all been learning English as a foreign language for approximately ten years. Before taking this course, they had all taken a basic interpretation course taught by another instructor. To protect the privacy of them, I have used initials for students who took part in my study, and have also altered some background information about them. The name of the university should remain anonymous.

4. RESEARCH QUESTIONS

This study attempted to find answers to the following questions:

1. Was short-term memory a significant factor affecting participants' interpretation performance?
2. What mnemonic device(s) did the participants use before learning the memory strategies in this course?
3. What were the negative factors in the application of the five mnemonic strategies?
4. What were the positive factors in the application of the five mnemonic strategies?
5. How could the findings be exploited to enhance interpreter training?

The study was conducted in an interpretation classroom equipped with three soundproof booths. The table was oval shaped; each participant had access to a microphone and a pair of earphones.

5. STUDY PROCEDURES

In this case study, conducted in the teacher-research paradigm (see Mohr & Maclean, 1987; Patterson & Shannon, 1993), I taught an interpretation course and investigated the classes that I taught using qualitative methods to collect and analyze two types of data: those provided by me, the instructor, including my teaching logs, headnotes, field notes, reflective notes, and teaching materials; and those provided by the participants,

including their feedback in class, learning journals, and after-class interviews. As proposed by Chen and Hensey (2000), Chen and Hensey (1999), and Chen (1999), memory enhancement served as one of the eight components of a semester-long course that consisted of introduction to interpreting, reading aloud, memory enhancement, synonym searching, brain storming, memory training, cloze exercises, and consecutive note taking.

In addition to performing the seven training components as discrete tasks, students were asked to interpret simultaneously from the first day of the course. The whole class, working in groups of three--with one interpreting and the other two monitoring and assisting--interpreted, in CI or SI, whichever was appropriate, whatever anybody said in class.

I began teaching the mnemonic devices by first explaining what they were and the reasons for using them. Having introduced them, I used the following methods to provide source language input:

- I read a news story from the Voice of America downloaded from the Internet.
- A participant read a news story or a written text.
- I, or a participant, delivered an improvised speech.
- A participant sight translated an article.

Students were asked to interpret consecutively, or listen to a message and then recall in either the source language or the target language, without taking notes. The oral data were collected

by using open-ended questions. I gave the following instructions to, or asked questions of, the participants who had been asked to interpret, or to recall, an aural message:

1. Please recall the message in great detail without twisting the meaning of the original information.
2. What mnemonic device did you use?
3. Why did you use that specific mnemonic device?
4. Explain in detail how you used the mnemonic device to remember the message.
5. Did you find the mnemonic device useful and why did you find it useful?
6. Did you find the mnemonic device interesting and why did you find it interesting?

In order to encourage participants to become as creative as possible, I told them to do their best, to relax, to have confidence, and not to worry about making mistakes. As a result, unless the participants made mistakes in translating something transcodeable, such as figures, numbers, special terms, etc. I ignored them because in interpreting, an individual is supposed to be able to paraphrase, abstract, condense, telescope, and find synonyms or similar expressions as interpretation strategies.

By observing the methods of data collection and analysis for qualitative research as propounded by Glaser and Straus (1967), data collection, coding, and analysis were related in a circular

manner instead of as discrete procedures. Data were analyzed as soon as they had been gathered, and this preliminary analysis directed further data collection, which led to more focused data gathering and more advanced data analysis. In processing the data, I coded and concentrated on emerging categories and properties, "demystifying them, saturating them, and integrating them into a theory" (Glaser, 1992, p. 59).

6. INTEGRATING MNEMONIC DEVICES INTO INTERPRETER TRAINING

In this study, I asked participants to perform the five memory strategies introduced by Chen (1999; in press-b) and Hensey and Chen (1998) who conducted interpreter-training research at the University of Texas at Austin and a community college in the southwestern United States. These memory strategies, which have been described fully elsewhere (see Chen, in press-b), were related to association, organization, chunking, and visualization. The five strategies were gist words, pegging, pictorialization, the location strategy, and absurdity.

Gist Words. Participants were asked to listen to a speech and remember the gist words of the speech. When interpreting, they were asked to use their chosen gist words to help them reconstruct the speech in the target language.

Pegging. When practicing pegging, participants were asked, while listening to a speech, to visually transform the incoming verbal message into several chunks, but no more than seven chunks. Meanwhile, they were asked to imagine themselves hanging the items one by one on the pegs on a wall. When recalling, they were asked to visualize themselves removing these items from the pegs one by one and to talk about them in the target language.

Pictorialization. While listening to a speech, participants were asked to turn the source-language input into pictures and store them one by one in their memory, as a VCR would do when recording pictures. When recalling, participants were asked to visualize themselves playing the VCR and using the target language to describe the pictures, one by one, in logical order, that they had imagined themselves seeing.

Location. In performing this strategy, while listening to a speech, participants were asked to visualize themselves moving from one room to another in a building, and to associate each part of the source language input with furniture, rooms, and other parts of the building that they had come across as the speech progressed. When recalling, participants were asked to again move from one room to another, relating in the target language each part of the source message from memory cues provided by the furniture, the parts of the rooms, and the building.

Absurdity. Participants were asked to listen to a speech while creating absurd mental pictures of images from the speech in their minds. When recalling, they were asked to review their absurd pictures in their minds and elaborate on the pictures in the target language.

7. RESULTS

7.1 Poor Short-Term Memory Caused Poor Interpretation

Participants all blamed their poor performances in interpreting, without taking notes, on their poor short-term memory. For instance, one participant said that when performing simultaneous interpretation he had forgotten the beginning when interpreting the middle and forgotten the middle when he interpreted the end of a message. DK, a participant, who had failed the interpretation course the previous semester, one day visited me at my office to explain to me why he had failed the course. He blamed his poor interpretation performance on his bad kidneys, which he said had caused his memory to fail. When asked if he had been examined by a doctor, he said that he had not, but he was quite sure that what he had said was true. Some doctors of Chinese medicine and the mass media in Taiwan had been bombarding the public with the idea that poor kidney functions, poor sexual performance, and poor memory were closely interrelated. Poor memory, especially

poor short term memory, was often the first thing to blame when a student failed to perform well in interpretation.

7.2 Before Learning the Mnemonic Devices Participants Relied on Gist Words

Before I started teaching the mnemonic devices, I tried to find out how participants remembered the information when they recalled, or interpreted, without taking notes. The findings indicated that they had unanimously relied on gist words--which they called "key words" or "important words". Participants in this study cited the following reasons for relying on the gist words: they could not understand some of the words that they had heard when recalling a message, they did not need to recognize all the words in a speech to understand it, and they used "the keyword method" when dealing with their mother tongue.

Participants could not understand some of the words that they had heard when recalling a message. When that happened, they relied on the words that they could recognize, and remember, to recall the message they had heard. For example, GA, resorted to the gist words strategy because she could not recognize, and neither could she remember, every word and sentence in a message she had heard, saying it was "second nature" for her to resort to the method. "The gist words strategy," she said, "served as a cue for the rest of the message I had heard".

They did not need to recognize all the words in a speech to understand it. ZU, a participant, also used the gist words strategy to recall information because, she said, "When listening to a speech, I don't need to remember every word; I just need to remember the key words. Key words can help me recall information effectively." She commented that she relied on key words because when she listened to a message she did not need to recognize every word, and neither could she remember every word she had heard. She said that if she tried to remember every word she had heard, she could neither remember well nor comprehend thoroughly.

They used "the keyword method" when dealing with their mother tongue. ZU, for instance, used the same strategy--"the gist-words method"--when listening to both her first language and second language. This may also help explain why the gist-words strategy was so popular among novice interpreters.

7.3 Negative Factors in the Application of the Five Strategies

The data demonstrated that the following factors contributed to the participants' failures in applying the memory strategies: time constraints, difficult source language input, difficult words and expressions, conflicts with the participants' personal memory strategies, poor imagination, reluctance to participate, anxiety, concerns about using the absurdity strategy and the pegging

strategy, difficulty in deciding which mnemonic device to use, and exhaustion.

Time constraints. Common complaints about the difficulty of using the mnemonic devices were about time constraints. SA, for instance, said that the mnemonic devices I had taught were very creative and helpful, but she found it difficult not only to picturalize but also to organize the pictures while concentrating on interpreting. The location strategy and the absurdity strategy were also difficult for her because the time was too short.

Difficult source language input. My observation notes indicated that participants had a reduced ability to conceptualize when the materials became too difficult. When the source language input became difficult, the participants found it hard to conceptualize because they could only comprehend some of the words. When conceptualization became difficult, the participants had to rely on the gist words strategy.

Difficult words and expressions. JN had won a school speech contest the previous semester and performed excellently in delivering an impromptu speech in class. Nonetheless, when I monitored her interpreting another participant reading a news story, I noticed that JN had been interpreting intermittently. Then I asked her what the problem was, and she said that she had given up because she could not recognize some of the words. JO also said that she was stuck when she encountered difficult words, and

believed that she needed to enhance her general knowledge and vocabulary.

Conflicts with the participants' personal memory strategies. WY, a participant, commented that she found some mnemonic devices difficult to learn because she tended to automatically use her own memory strategies when remembering things. She said that she needed more practice in using the strategies taught in this course.

Poor imagination. After I had explained how to use the location strategy and told a story, JY recalled the story and commented that the location strategy was difficult to use because all she could find helpful was the three outlet holes in the microphone stand which reminded her of the three parts of the story.

Reluctance to participate. Participants who were more active in participating in the classroom activities tended to use more visualization-based strategies, according to my field notes. On the other hand, those who had not participated actively in class tended to lack creativity in using the mnemonic devices.

Anxiety. I observed that when participants were anxious, they found it more difficult to use mnemonic devices; on the other hand, when they became relaxed, they tended to use their imagination more effectively and recall more effectively. For instance, one participant interpreted a piece of news about former-president Lee Teng-Hui's resignation after over eight years' presidency. Had JY

not been completely relaxed, he would not have been able to recall the news story with the absurdity strategy. GA wrote in her journal "Confidence and courage are also instrumental, without which you would probably stutter or give up halfway."

Concerns about using the absurdity strategy and the pegging strategy. Some participants showed their concern about using the absurdity strategy and indicated that if they used it at a conference and became nervous, they might say something absurd. Other participants commented that the pegging technique did not work in complex texts because it did not allow them to organize information logically. In that situation, they would rely on the gist words strategy instead. One participant indicated that when information was logical, such as that involving a series of distinctively itemized components, which was difficult to picturalize, she found it more useful to use pegging. However, that participant also worried that when she used pegging, there would be too many pegs for her to remember.

Difficulty in deciding which mnemonic device to use. Although participants finally learned to use all the memory strategies that I had introduced, they found it difficult to decide which memory strategy to use when they were called upon to recall a message.

Exhaustion. At the end of a session, participants all felt very hungry and tired. In that situation, they found it difficult to apply any mnemonic device at all.

7.4 Positive Factors in the Application of the Five Strategies

The data showed that creativity, inventiveness, and insights were major factors that contributed to students' successes in applying the five mnemonic strategies:

Creativity. As participants continued learning the mnemonic devices, in addition to using the gist words strategy, some also started the other four strategies. However, my field notes showed that it was always the same, creative, participants who were more willing to try more techniques. This division was perhaps compounded because these memory strategies also made participants feel more creative. WY, for instance, commented that when she used the pictorialization strategy, she became more creative, and her mind "became alive and less stressed".

Inventiveness. Participants came up with two new mnemonic strategies: "the chronological order method" and "the charting method". On one occasion, I provided source language input by reading a news story about the slumping U.S. stock market. Then, I asked the participants to recall the information by using one of the five mnemonic devices that they had learned; yet, instead of using one of these strategies, one participant came up with a new method, which she called "the charting method"--turning the information in her mind into line charts as those used in the stock market reports on TV. On another occasion, one participant was delivering a speech, which was related to an incident, for the other

students to interpret. After performing long consecutive interpretation without taking notes, one participant reported that he had remembered the incidents by visualizing them in chronological order.

Insights. Another case of participants' creativity may be seen in their insights into the mental processes of interpreting. After interpreting my brief lecture on short-term memory, GN, for instance, recorded in his journal that when interpreting, he turned the incoming verbal message into something neutral, usually some pictures, and explained that he had used pictorialization because of the following reasons: "(1) words were difficult to remember; (2) pictorialization helped conjure up memories of the images or pictures in his mind; and (3) it was easier to describe the pictures in the target language, but it was difficult to transcode the source language input directly into the target language output." This finding conflicted with an earlier one--novice interpreters relied on the gist words strategy because they found it difficult to conceptualize.

Participants, in a classroom interview, unanimously agreed that CI took up more short-term memory than SI did. They observed that although they could resort to note taking in CI, when performing CI, they needed to hold information in their short-term memory much longer than they did when performing SI. GA, a participant, said that in addition to proficient note-taking skills and quick reactions, memory was a crucial factor in performing CI

successfully. On the other hand, one participant observed, in her journal, that SI was more difficult because it was a form of multiple tasking: listening to a chunk of information, interpreting another chunk of information, monitoring one's output, and correcting errors simultaneously and continuously. Some participants, however, commented that SI got easier after some practice, but CI did not.

8. SUGGESTIONS FOR THE IMPROVEMENT OF MEMORY TRAINING

The suggestions I will offer for improving memory enhancement in interpreter training include the following: careful sequencing of the learning materials, the source language input, and the mnemonic tasks; modeling; taking affective factors into account; and offering feedback by using "the kissing-and-kicking technique". I made similar suggestions elsewhere (Chen, in press-a) because I believed that these suggestions would also facilitate memory enhancement in interpreter training in general.

8.1 Learning Materials

Sequence the learning materials in terms of difficulty and their relevancy to each mnemonic device. If memory training is the goal of a class, then materials should not contain too many new complex sentence structures and new words, phrases, or terms. In

addition, the topic should be non-technical because, I observed that, when the materials and the topic became too difficult, participants tended to give up easily, kept on using the gist words strategy, or rely too much on individual words. The levels of difficulty of the materials may be increased; nonetheless, as participants become more proficient.

8.2 Learning Activities

Sequence the languages used in performing the mnemonic exercises. Languages used in mnemonic exercises should be sequenced in terms of difficulty because memory enhancement itself already presents a burden on participants. I suggest that, following an order set out by Lambert (1992), the languages used in recalling exercises be in the following sequence:

- Listening to information in LA (students' mother language) and then recalling in LA.
- Listening to information in LB (students' foreign language) and then recalling in LB.
- Listening to information in LB and then recalling in LA.
- Listening to information in LA and then recalling in LB.

Sequence the mnemonic strategies carefully and schedule more time for difficult ones. Participants commented that they needed to learn the mnemonic devices one at a time and to have more time to practice each task although they believed that the

mnemonic devices facilitated retention. Likewise, they also asked me to schedule more time for the memory enhancement component of the course. I observed that the mnemonic devices may be structured in the following sequence in terms of difficulty:

- The gist words strategy.
- Pegging.
- Pictorialization.
- The location strategy.
- Absurdity.

Demonstrate the use of each mnemonic device. When teaching a new mnemonic device, the instructor must explain it first, then demonstrate how to use it. After that, the instructor must ask if participants have any question before asking them to practice using the mnemonic device. One participant wrote in her journal that she was not quite sure how to use certain mnemonic devices and asked for demonstrations. As Chen (1999) indicated, modeling--demonstrating how to do a task-- and pausing for students to ask questions are effective interpreter-training techniques. In addition, I observed that those participants who had showed insights tended to perform better in recalling. Finally, at the end of each training session, the instructor must offer feedback.

8.3 Affective Factors and Feedback

Affective factors. Factors such as participants' learning anxiety, self-esteem, self-confidence, and their beliefs should be taken into account when teaching mnemonic devices because, based on my observations, affective factors tended to influence students' learning. For instance, I observed that participants who were relaxed and outspoken were better at using the pictorialization and the absurdity strategies. Therefore, affective factors may play a significant role in interpreter training and, in particular, memory enhancement. Instructors need to encourage the participants, make them feel confident that they can recall, and correct their errors skillfully.

Interpretation is more related to meaning transfer at a discourse, or textual, level rather than transcoding at a lexical level; for that reason, some of the participants' interpretation errors should be treated as interpretation tactics or strategies instead of fatal sins. One participant wrote in her journal that interpreting and speaking in public had already made her anxious, so it would have made her feel worse if an instructor kept on correcting her errors. Correcting participants' errors constantly may only discourage them from interpreting fluently (Herbert, 1952). Therefore, instead of concentrating on correcting participants' errors, the instructor should encourage participants to interpret and learn from mistakes through self evaluation and peer critique. Frequent error correcting without considering affective factors may become counterproductive; in addition, it may frustrate participants and

prevent them from taking risks and from developing interpretation automaticity. Feedback is required but it must be offered tactfully.

Using "the kissing-and-kicking technique". One way to offer feedback is called "the kissing-and-kicking technique," (a method I learned at the meetings of Toastmasters International). By using this technique, the instructor finds something that a learner has done well, and praises it before starting to correct the learner's errors in carrying out the memory tasks. To prevent from interrupting interpretation continuity, the instructor may also job down the errors and then offer feedback using this technique when a student has completed a recall exercise.

8.4 Testing

Because this study was a component of a semester-long interpretation course, I did not attempt to administer formal tests on participants' short-term memory; instead, I evaluated their performance in carrying out the memory tasks, based mainly on their answers to my questions and my classroom observations. Participants could have been tested by using the memory testing methods discussed in Lambert and Meyer (1988), Moser-Mercer (1994), or Chen (In press-a).

9. CONCLUSION

The data produced by this study indicated that short-term memory played a significant role in both interpreter training and interpretation. However, memory enhancement is not achievable overnight; therefore, it should become part of an on-going training process. This study is limited in that it is based on qualitative data rather than quantitative data, and no attempt was made to measure exactly how much improvement the participants had made in their short-term memory after completing the memory training. In addition, the characteristics of the participants indicated another important limitation on the ability to generalize from this study because students from this university cannot represent students from the other universities. This issue deserves further investigation.

References

Biehler, R. F. & Snowman, J. (1993). *Psychology applied to teaching* (7th Ed.). Dallas: Houghton Mifflin Company.

Chen, S.J. (1999). *Teaching and learning in a non-language-specific interpreter training course*. Unpublished doctoral dissertation, the University of Texas at Austin.

Chen, S.J. (in press-a). *The application of mnemonic devices to interpreter training*. ATA Chronicle.

Chen, S.J. (in press-b). Memory enhancement in interpreter training--A southwestern U.S. case study. *The Proceedings of American Translators Association 41st Annual Conference Wyndham Palace Resort, Orlando, Florida, September 20-23, 2000*.

Chen, S., & Hensey, F. G. (1999). The application of a conceptual model of non-language-specific interpreter training. In *the Proceedings of the Third Translation/Interpretation Conference at Chang Jung University, Tainan, Taiwan, Republic of China*.

Chen, S.J. & Hensey, F. (2000). A structured decomposition model of a non-language-specific interpreter training program. *Studies of Translation and Interpretation*, 4, pp. 81-120.

Glaser, B. G. (1992). *Basics of grounded theory analysis*. CA: Sociology Press.

Glaser, B. G., & Straus, A. (1967). *The discovery of grounded theory*. Chicago, IL: Aldine.

Hensey, F. G. & Chen, S.J. (1998). *The implementation of a non-language-specific interpretation course--A pilot study*. Paper presented at the AATIA (Austin Area Translators and Interpreters Association) general meeting, Austin, TX.

Herbert, J. (1952). *The interpreter's handbook: How to become a conference interpreter*. Genève: Librairie de l'Université, Georg & Cie S.A.

Lambert, S. (1991). Aptitude testing for simultaneous interpretation at the University of Ottawa. *Meta*, 36, 586-594.

Lambert, S. (1992). Shadowing. *Meta*, 37, 263-273.

Lambert, S., & Meyer, I. (1988). Selection examinations for student interpreters at the University of Ottawa. *Canadian Modern Language Review*, 44, 274-284.

Mohr, M. M., & MacLean, M. S. (1987). *Working together: A guide for teacher-researchers*. Urbana, IL: National Council of Teachers of English.

Moser-Mercer, B. (1994). Aptitude testing for conference interpreting: Why, when, and how. In S. Lambert & B.

Moser-Mercer (Eds.), *Bridging the gap: Empirical research in simultaneous interpretation* (pp. 57-68). Philadelphia, PA: John Benjamins Publishing Company.

Patterson, L., & Shannon, P. (1993). Reflection, inquiry, action. In L. Patterson, C. M. Santa, K. G. Short, & K. Smith (Eds.), *Teachers are researchers: Reflection and action* (pp.7-11) . Newark, DE: International Reading Association.

Schweda-Nicholson, N. (1990). The role of shadowing in interpreter training. *The Interpreter's Newsletter*, 3, 33-37.