

Chapter Three

Methodology and Experimental Design

In the previous chapter, communication strategies used in spoken language and written language have been compared. The differences between spoken language and written language lay not only in the medium but also elicitation method--subjects are asked to convey the same set of concepts in the way of speaking and writing. Does the difference of elicitation method per se constitute a factor that influences the selection of communication strategies? Bialystok and Frohlich (1980) compare the effect of methodological difference by dividing subjects into three groups--(1) written description group, (2) oral description group and (3) dictation group in which one subject describes the picture and the other subject reconstructs by drawing the picture based on the description. The result shows that different methodology only has effect on quantitative features but not on qualitative features. That is, the three groups differ in the amount of elicited speech but show similarity in the features of communication strategies selected. They further conclude that the subjects employ the same set of communication strategies in roughly the same proportions irrespective of the elicitation method used. The possible effect of different elicitation method therefore can be ruled out as a factor that influences the choice, which provides us with theoretical base in comparing the communication strategies used in spoken language

and written language. However, in Bialystok and Frohlich's (1980) study, they have three different sets of subjects perform the different tasks that differ in elicitation method. The difference of the idiosyncrasy of each subject has been neglected. To put it differently, each subject may be good at different elicitation method. For example, some subjects may be good at expressing themselves in speaking while others in writing. We consequently have the same set of subjects express a controlled content in the two production modes--speaking and writing, in order to measure mode-related differences. The design and the method used in the study are described in the following.

3.1 Subjects and participants

Because the present paper aims to study how Taiwan EFL college use communication strategies to express an intended meaning, a total of twenty college students ranging from freshman to senior participated in this study. Subjects are students who are randomly selected from National Cheng-chi University and their majors and age are not controlled. The reason is that the effect of age and major can be reflected on proficiency level, which is one of the main concerns of this paper. In other words, the manipulation of proficiency-related issues handles the effect of extra learning and different training as well. Having studied English for more than six years,

these subjects are believed to have the basic knowledge of English to express an intended meaning.

In addition, one English native speaker from England served as an interlocutor. She is a female at the age of 25. The presence of the native interlocutor is to simulate real communication in target language and to force subjects to think in target language. The main job of the English native speaker is to sit there and listen to oral descriptions of prompted words delivered by the subjects.

In order to divide the subjects into different groups based on their speaking proficiency and writing proficiency, two raters have also participated in the study. One is Dr. Cynthia Tsui¹, who has helped the author in dividing subjects into three groups according to their speaking proficiency. The second rater is Dr. Chi-yee Lin², who has helped the author divide subjects into three groups according to their writing proficiency. The standards of rating written by the institute of General English Proficient Test (GEPT) are given to the two raters for reference.

4. Dr. Cynthia Tsui is now an assistant professor in Foreign Language Center of National Chengchi University responsible for teaching listening and speaking of English. She has offered several courses related to the teaching of speaking in English, such as: *Developing oral proficiency in English: Teaching Listening and Speaking*, and *Teaching and Evaluating English listening and speaking*. She helps the author rate subject's speaking proficiency.

5. Dr. Chi-yee Lin is now an associate professor in English department of National Chengchi University. Teaching reading and writing is one of his specialties. He has offered several courses regarding the writing of English such as: *Writing and Reading*, *Developing Literacy skill in English: Teaching Reading and Writing*. He is responsible for the rating subject's writing proficiency.

After the data of communication strategies has been collected, two research assistants took part in the study and helped the author classify the productions of the subjects. One of the research assistants is a linguistic major and has taken several courses in second language acquisition. The other is the native speaker who served as interlocutor in eliciting learners' use of communication strategies in spoken language.

3.2 Materials

Poulisse and Schils (1989) point out that difference in tasks has great influence on subject's choice of communication strategies. In their study, they use three different kinds of tasks including (1) description task, (2) story retell task and (3) oral interview with a native speaker of English to elicit the performance of communication strategies. The result shows that subjects in different groups performing different tasks prefer different set of communication strategies. For example, *analytic strategies*³ are predominantly used in description task whereas *holistic strategies*⁴ and *transfer strategies* are frequently resorted to in story retell task and oral interview. In order to prevent the result of our study from being task-specific, which means that the result can not generalize to the use of communication strategies elicited from other tasks, we focus on 'word description' that is a prerequisite element in all kinds of tasks. In

³ Analytic strategies are the strategies that learners analyze intended concepts into smaller parts and describe the attributes of these parts with an aim to help learners identify the referent.

⁴ Holistic strategies treat intended concept as a unit and label it by associating it to a real-world object.

addition, Yule and Tarone point out that ‘future investigation of L2 reference will have to include both abstract and concrete referents to explore fully learners’ strategies and language in creating L2 reference. (Yule and Tarone, 1997: 26)’ In our study, we have both concrete words and abstract words as prompts. The words used for elicitation were adopted from Paribakht(1985), in which the subjects were asked to convey each concept without using the exact target word. In total, there are twenty words as shown in the following:

Concrete concepts

abacus
hammock
lantern
scarecrow
seesaw
chimney
thimble
pomegranate
dust pan
palanquin

Abstract concepts

fate
martyrdom
flattery
success
honesty
pride
courage
faithfulness
justice
patience

(Paribakht, 1985 :134)

The concept of *thimble*, *pomegranate*, *palanquin* and *martyrdom* may not be familiar to learners in Taiwan. We, therefore, replace them with more common words--*blister*, *cotton bud*, *peacock* and *sympathy* respectively. The rest of words remain unchanged.

To demonstrate concrete words, the picture of each word is presented to the subjects in cards to make sure that the same object is described. As for abstract words,

both the target word and the Mandarin counterpart are written in the cards to ensure that every subject knows the exact concept that they were asked to convey.

The use of the prompted words to elicit how subjects manipulate their communication strategies to overcome the lexical difficulties has much in common with L2 learners' attempt to compensate for the lexical gap in their interlanguage system. The difference is that in the latter case the part in which learners need to deal with their lexical problems may only occupy a small section, because in real conversation they can rely on the help of interlocutor or the environmental context and linguistic context to reach an agreement with the interlocutor. In order to obtain a great amount of data and to get rid of possible factors that may complicate the use of communication strategies, prompted words rather than free conversation are adopted in the study.

The material used to measure subject's oral and writing abilities is a modified version of General English Proficiency Test (GEPT) for intermediate learners. It consists of four sections: listening, speaking, reading and writing. Each of these four abilities is scored independently. Since the present paper aims to examine the relation between (i) speaking ability and communication strategies in spoken language and (ii) writing ability and communication strategies in written language, only the speaking section and writing section of the test are taken out as a reference. The test time for

the speaking task is 15 minutes and the test time for the writing task is 40 minutes.

Subject's performances on speaking section as well as writing section were rated by Dr. Cynthia Tsui and Dr. Chi-yee Lin respectively and the subjects were divided into three groups: elementary group, intermediate group and advanced group.

3.3 Procedure

The procedure conducted in the project consists of three main stages. At the first stage, subjects are asked to convey the meaning of prompted words orally to the native interlocutor without using the exact target word. The subjects are required to express each concept with at least 90 seconds and are encouraged to describe as much as they can. They are asked to raise their hands when they think that they have provided enough information for the native interlocutor to figure out the meaning. Then, the next prompted word is presented to them. The presence of the native interlocutor aims to simulate real communication and to force the subjects to try their best in solving lexical problems and. In the process of real communication, the feedback of the native interlocutor or the negotiation between the subject and the native interlocutor would 'hide' some parts of the use of communication strategies delivered by L2 learners. In other words, the number of communication strategies may be reduced in the situation when the native interlocutor gets involved in

negotiating on the meaning of the intended concept. Therefore, the native interlocutor is required not to respond to the subjects with verbal utterances but just sit and listen.

The order of demonstrating prompted words is the same to each subject with one concrete word followed by one abstract word. The mixing order of demonstrating these two kinds of noun is to avoid the effect of alternative kind of noun on the other. In the process of description, the mention of the exact target word is not allowed. Once the exact target word is used, the subject is asked to reinitiate the description of the word again to the interlocutor. There is no time limitation and the subject is encouraged to provide as detailed information of the concept as possible to the interlocutor, who is told to be as friendly as possible in order to decrease the anxiety of the subject. The reason why there is no time limitation has connection to one of our hypotheses that the more proficient learners may be able to use more communication strategies while the less proficient learners may use less communication strategies. If the time is controlled, the number of communication strategies used by learners may be controlled as well. Therefore, we do not set time limitation for subjects' description. The oral description of the concepts is recorded on audio and video tapes and transcribed for later analysis.

At the second stage, the same set of subjects are presented with the same set of prompted word with the same order as those at the first stage and are asked to write

down a description of these words one week later. The reason for this time span is to prevent the effect of practice and memory in the oral description. If the task of the oral and the written description is conducted on the same day, the effect of memory and practice might make some parts of the use of communication strategies similar. In this way, we can not accurately compare the choice of communication strategies in these two modes. As a result, the written description of the words is postponed one week later. There is also no time limitation and the subjects are allowed to write as long as they are willing to.

There are some intrinsic distinctions between these two modes of production. For examples, speakers can receive some direct feedbacks from the listeners whereas writers can not get such direct response. In order to make oral communication parallel to written communication, the same native speaker is asked to read the written description of prompted words. When she finds the meaning of words was not completely expressed, she poses questions by writing down her comments. Then the subject is asked to revise his/her written description according to her comments to make the meaning of prompted words complete.

At the third stage, the modified set of General English Proficiency Test is given to the subjects in order to measure their speaking proficiency and writing proficiency. In the speaking section, the subjects are first asked to answer the tasks printed in the

paper orally within 15 minutes including reading-out-loudly task, question-answering task and the picture-describing task. The performance of the subjects is recorded with a digital camera and then is rated by Dr. Cynthia Tsui. According to the rating, the subjects are divided into three group: elementary group, intermediate group and advanced group.⁵

The subjects are then asked to finish the written task by writing a composition in the same test. The compositions are rated by Dr. Chi-yee Lin and are counted as writing proficiency, according to which, the subjects were divided into three groups as well.

In most of the previous studies that examine the relation between proficiency level and the use of communication strategies, subject's proficiency level is derived from their performances in a grammar test such as cloze test and the use of communication strategies was elicited from an oral task. We consider that there exists a gap. The ability to get a good score in a grammar test does not equal to the ability to express oneself well in face-to-face communication. We therefore suggest that the use of communication strategies in spoken language should be examined through subject's speaking proficiency that indicates both linguistic knowledge and speaking

⁵ In GEPT, there are actually five grades in the rating system. Because we have only twenty subjects participating in the study, to divide subjects into five groups will make the sample of each group too small. Therefore, we ask the two raters, Dr. Tsui and Dr. Lin, to put the subjects into three groups, i.e. the most proficient learners in the advanced group, the average learners in the intermediate group and the least proficient learners in the elementary group.

ability. As for the use of communication strategies in written language, it is suggested to be examined through writing proficiency that takes into account of linguistic knowledge and writing ability. The purpose is to avoid the gap between ways of measuring proficiency and tasks of eliciting the use of communication strategies. That is the reason why both speaking proficiency and writing proficiency are measured.

3.4 Coding system

The coding system of the present study is mainly based on the taxonomic system proposed by Paribakht (1985) which is a hierarchical system with subordinate strategies under superordinate ones. There are four major approaches to solve the lexical problems as are displayed in the following.

I. Linguistic approach:

A. Semantic contiguity: semantically related item to the target concept is exploited.

1. Superordinate
2. Comparison
 - a. Positive comparison
 - i. Analogy
 - ii. Synonymy
 - b. Negative comparison
 - i. Contrast and opposition
 - ii. Antonymy

B. Circumlocution: the characteristics of the concept are described.

1. Physical description
 - a. Size
 - b. Shape
 - c. Color
 - d. Material

2. Constituent features
 - a. Features
 - b. Elaborated features
 3. Locational property
 4. Historical property
 5. Other features
 6. Functional description
- C. Metalinguistic cues: metalinguistic information on the target concept is given.
- II. Contextual approach: contextual information about the target concept is provided.
- A. Linguistic context
 - B. Use of target language idioms and proverb
 - C. Transliteration of L1 idioms and proverbs
 - D. Idiomatic transfer
- III. Conceptual approach
- A. Demonstration: a concrete context that reflects the target concept is created.
 - B. Exemplification: reference to examples that correspond to the target concept is used.
 - C. Metonymy: a prototype member of the target concept is chosen to represent it.
- IV. Mime
- A. Replacing verbal output: a gesture is used to substitute for a linguistic output.
 - B. Accompanying verbal output: a meaning gesture is used to accompany his or her verbal output.

Since the present paper attempts to compare the use of communication strategies in spoken language and written language, the uses of the fourth approach--*mime* that occurs only in spoken language are excluded. The main focus is put on coding strategies, i.e. the ways used to code message including the *linguistic approach*, the *contextual approach* and the *conceptual approach*. The advantage of Paribakht's (1985) taxonomic system is its comprehensiveness. Nevertheless, it may also cause the problem of triviality and overlapping. To solve these problems, we merged some of the categories. First, the constituent strategies under the *circumlocution strategy* are

ignored and all the strategies that describe the characteristics of the target concept are identified as *circumlocution strategies* regardless of which part of the target concept being described. Second, all the strategies that refer to idioms to convey meaning is counted as *idiomatic strategy* without the consideration of the source of the idioms. Third, *linguistic context* and *demonstration* take advantage of the description of a context with an aim to helping the audience activate the target concept and are therefore merged as *situation strategy*. The modified version of Paribatht's taxonomic system is presented as follow.

1. Superordinate
2. Analogy
3. Synonymy
4. Contrast and opposition
5. Antonymy
6. Circumlocution
7. Situation
8. Idiom
9. Metonymy
10. Exemplification

All the occurrences of communication strategies in learners' oral production and written production are identified mainly according to this system by the three coders--the researcher, the native English interlocutor and the research assistant respectively. When the difficulty of assignment is confronted, the opinion and the analysis of the other two coders are taken into consideration. The decision of the categorization of the ambiguous communication strategies is based on the three

examiner's discussion in order to avoid different judgment. The system, however, is the selection of communication strategies by Persian ESL students in Paribatht's (1985) study. Do Taiwan EFL college learners use the same types of communication strategies to solve lexical problems? The result of communication strategies adopted by Taiwan EFL college learners will be presented in the next chapter.

It is suggested that the exploration of these strategies can shed light on how lexical problems are dealt with. The useful strategies can be thus taught to language learners with an aim to equipping them with ability to deal with lexical problems. This is important for language learners, because they will continue to encounter unlearned words, which are suggested to impede successful communication in target language. With such good sense of communication strategies, learners can have the ability to solve communicative problems by themselves. To communicate in target language, then would be less difficult.

3.5 Data analysis and statistical methods

After we have completed the categorizing of the communication strategies used by the subjects, we then recorded the occurrences of each communication strategy in strategy-counting form as displayed in appendix I. SPSS (Statistic Package for Social Science) is adopted to analyze the result. First, a chi-square test was conducted to

examine if there is the difference between subject's communication strategies used in spoken language and in written language. If there is difference, we further analyze which communication strategies of the twelve types make the difference and explore the reasons.

Then, in order to quantitatively compare the difference of communication strategies used in spoken language and written language by the subjects, sign test was performed. Sign test belonging to nonparametric statistics is suitable for the small sample in the present study. The rationale of the sign test is to have the strategies used in spoken language subtract those in written language. The result of data can be divided into three groups: (a) >0 , (b) $=0$, (c) <0 . Group (a) indicates that the occurrence of communication strategies used in spoken language is more than that used in written language. Group (b) means the occurrence is the same in the two modes while Group (c) represents more occurrences of communication strategies in written language than in spoken language. Sign test can show that whether the difference between group (a) and group (c)⁶ reaches the level of significance. If the difference is significant and the number of group (a) is larger than group (b), then it means that the occurrence of communication strategies in spoken language is greater than that in written language and vice versa.

⁶ Because we attempt to examine the difference of communication strategies in the two modes, group (b) that mean the equality between the two modes are not taken into consideration.

In addition, the relation between communication strategies and language proficiency is explored. The subjects are divided into three groups according to their speaking proficiency and writing proficiency. K-W test was conducted to examine whether there is difference among the three groups. The significance level for the tests performed in the current study is set at $p < .05$, which was the traditional significance criterion for behavioral science research. When the difference reaches the level of significance, it means that speaking proficiency or writing proficiency has the influence upon the communication strategies chosen. Then the possible reason will be suggested.

3.6 Summary of Chapter Three

In this chapter, experimental design used to elicit subject's communication strategies are introduced and will be summarized in the following.

There are nineteen subjects, one native English interlocutor, two raters, one research assistant and the researcher participating in the experiment. First, the subjects are asked to convey the meaning of the pictures or the words shown on the cards to the native English interlocutor. The process of the communication between the subjects and the interlocutor was recorded by a digital camera and was transcribed for classification. Then, about one week later, the subjects were asked to write down how

they will express the meaning of the words shown on the cards without mentioning the words. Three examiners including the native English speaker, the research assistant and the researcher took part in identifying the occurrence of communication strategies according to the coding system mentioned above. The occurrence of communication strategies in spoken language and written language is then compared by statistical approach--chi test and sign test.

A modified set of GEPT is given to the subjects to measure subject's speaking and writing proficiency. Oral communication strategies are examined through speaking proficiency and written communication strategies are examined through writing proficiency. The purpose is to examine the relation between language proficiency and communication strategies used. A K-W test was then performed to investigate whether language proficiency makes a difference in the use of communication strategies among the three groups of different proficiency level. In the next chapter, the result of comparison and statistical approach will be presented and demonstrated.