Chapter 4

Research Methodology

In this chapter, after dealing with the counterfactual conditionals in the two languages, I will present the research. The scope of this study will be presented in section 4.1. In section 4.2 the research questions of the current study will be specified with their respective predicted results. This is followed by the introduction of research methods and procedures in sections 4.3 and 4.4. and a summary is made in section 4.5.

4.1 The Scope of This Study
The scope of this study will be limited to the learning of two types of English conditionals: the non-counterfactual conditionals and the counterfactual conditionals of the two tense references, as exemplified in Table 4-1:

Table 4-1: The three types of conditionals involved in this study

<table>
<thead>
<tr>
<th>two types of conditionals in English</th>
<th>example sentences</th>
</tr>
</thead>
<tbody>
<tr>
<td>non-counterfactual conditionals</td>
<td>If it rains, the game will be canceled.</td>
</tr>
<tr>
<td>counterfactual conditionals (present reference)</td>
<td>If it rained, the game would be canceled.</td>
</tr>
<tr>
<td>counterfactual conditionals (past reference)</td>
<td>If it had rained, the game would have been canceled.</td>
</tr>
</tbody>
</table>

One thing to note is that conditionals can be of many kinds. These conditionals without modals in the main clause will not be included in this study since they are not commonly introduced in textbooks used in Taiwan. Examples of this kind are the following:

(1) If he comes, let him in.

(2) If Mary said she liked the movie, she was just showing off.

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1 According to Quirk et al. (1985), the sentence “If it rained, the game would be canceled” can have future-reference meaning but due to this fact, this usage is not commonly included in English textbooks and EFL teaching material in Taiwan. Therefore, it will not be included in this study.
It also has to be pointed out that the two types of tense references in counterfactual conditionals sometimes can be mixed but mixture between non-counterfactual and counterfactual conditionals is not allowed. For example, in (3), they consist of the if-clause taken from the past-referenced counterfactual conditionals and the main clause from the present-referenced counterfactual conditionals. Given appropriate contexts, it is not difficult for us to imagine that the speaker hopes to express a re-evaluation of a situation where the cause originates in the past and the result comes out in the present time. While (4) and (5) are ungrammatical because they are made up with mixture between non-counterfactual and counterfactual conditionals (the following examples are taken from Dancygier, 1998).

(3) Tom wouldn’t be so hungry if he had eaten a proper breakfast. (p.33)

(4) *If your mother had been here, she will be in tears. (p.50)

(5) * If John wins in the election, it would be a shock. (p.50)

4.2 Research Questions

So far, we have known that the use of “backshifted tense” makes English counterfactual conditionals and that Chinese lacks similar overt linguistic categories to express counterfactuals. Therefore, the substantial question about the learning of the counterfactual conditionals in English would center on whether the lack of such overt counterfactual linguistic categories in Chinese language cause problems for Chinese EFL learners at the
senior high school level. Several research questions have been raised to shed light on their comprehension and production of Chinese EFL learners at the high school level.

(I) Do Chinese EFL learners at the high school level display difference in their ability to identify the contexts in which the non-counterfactual or the two types of counterfactual conditional constructions in English should be used? If so, is there a hierarchy of degree of difficulty?

From the previous discussions, we have already noted that the meaning of counterfactuals is a linguistic universal phenomenon, but from previous analyses of Chinese and English conditionals, Chinese language does not make a clear-cut distinction between counterfactual conditionals and non-counterfactual conditionals without the aid of context, time temporal and internal semantic logic. Based on this observation, it is hypothesized that Chinese students will have less difficulty in non-counterfactual conditionals but experience a greater amount of difficulty in counterfactual conditionals and that the past-referenced counterfactual constructions will be the most difficult one among the three constructions because of their structural complexity. The hypothesis is shown in Figure 2.

<table>
<thead>
<tr>
<th>Table 4-2: The hypothesized difficulty degree of the three kinds of conditionals</th>
</tr>
</thead>
<tbody>
<tr>
<td>Non-counterfactual &lt; counterfactual (present reference)</td>
</tr>
<tr>
<td>&lt; counterfactual (past reference)</td>
</tr>
</tbody>
</table>
(II) Do the two types of counterfactual conditionals in English (present reference and past reference) syntactically constitute different levels of difficulty for Chinese EFL learners at the high school level? More specifically, does the backshifted tense principle or the “were-subjunctive” cause problems?

The various forms of the backshifted tense principle in English may be problematic for Chinese EFL learners. The forms of the backshifted tenses may be of three types. The first one would be as simple as morphemes adding (the morpheme for the past tense ed) to backshift the present tense to the past tense. Next, in the past reference, the past perfective (had + past participle) or a past perfective modal is required (would /could /should /might+ have+ past participle). Thirdly, counterfactuals are expressed through the “were-subjunctive.” From the analysis in Chapter 2, we have already noted that Chinese lacks overt grammatical categories and therefore uses more diverse ways to express counterfactual conditionals. Thus, the real question is what it is like for high school students to learn the English counterfactual conditionals on the condition of the lack of overt grammatical categories in their mother language. Do students display certain kinds of characteristics in the learning process? And with various forms of the principle, do students at the senior high school level encounter different degrees of difficulty?

The hypothesized answers for this research question are twofold. The first one is that the degree of difficulty is the same as the prediction shown in Figure 2. That is, contextually and
syntactically the degree of difficulty is the same. And the second one is that for Chinese EFL learners, the “were-subjunctive” would be the easiest one to pick up because of its salient form.

Finally, we have a third research question as follows:

(III) How can the errors that Chinese EFL high school students make be categorized qualitatively and quantitatively, according to the related SLA studies?

The purpose of this research question is to summarize and to categorize the errors that students make, although it has been noted that not all the sources of errors can be identified. It is still hoped that some generalizations made from analyzing students’ errors can shed light on students’ learning process.

4.3 Instruments

A total of 82 subjects were involved in this research. They were students of two third-grade classes with the same English teacher at a national senior high school in central Taiwan and their ages ranged from 18 to 19. According to their English teacher, their English grades in the high school admission examination ranged form 42 point to 60 point (the full grade) and with the exception of textbooks (Far East version) they used no teaching materials. It took one class period for all of them to complete the three tasks. The two classes were given the three tasks at different times during the winter vacation of 2004.
Three experimental tasks were conducted to explore the three research questions of this study. The three tasks were Situation Task (Task One), Grammaticality Judgment Task (Task Two) and Elicited Translation Task (Task Three). Before providing a detailed description of the three tasks, we will briefly discuss their functions.

The Situation Task was used to detect students’ understanding of the appropriate uses under different contexts. The Grammaticality Judgment Task was conducted to explore students’ understanding of the forms between non-counterfactual conditionals and counterfactual ones and finally the purpose of The Elicited Translation Task was to observe and categorize students’ errors. The relation is shown in the following figure.

![Figure 4-1: The functions of the three tasks](image)

On the other hand, if the functions of the tasks are discussed in the comprehension & production dichotomy, we can find that the Grammaticality Judgment Task and the Situation
Task are used to explore the comprehension of the counterfactual conditionals and Elicited Translation Task is intended for the same purpose of the production. Figure 4-1 will expound the relation between the three experimental tasks and the research targets.

Figure 4-2: The relation between the three tasks and the comprehension/production dichotomy

In Figure 4-2, the three tasks and the dichotomy do not demonstrate a one to one correspondence. The reason of such designs is to avoid the possible bias caused by one single experiment. In the following, more detailed designs of each task will be introduced.

(1) Situation Task

By definition, this task is to put the subjects in a specific situation in which the subjects have to make a judgment of the appropriateness of a certain structure and therefore a series of contextual descriptions are designed to evoke certain structures from the subjects. This task has been used by researchers in the counterfactual study at the senior high school level with
some modification, testing the proficiency level of students. The target structures are tested through the form of multi-choice questions (Wu, 2003). And in this study, identical question types are designed to explore the first research question: Do Chinese EFL learners at the high school level display difference in their ability to identify the contexts in which the non-counterfactual or the two types of counterfactual conditionals constructions should be used? If so, is there a hierarchy of degree of difficulty? Therefore, this task consists of twelve test items. Eight of them require counterfactual responses and the remaining ones non-counterfactual. An example of this type of task is given in the following (for the rest of the task, see Appendix 1).

張三國中時不認真讀書，成績總是不及格，最後就放棄學業，事隔多年之後，某天經過某某高中校門口，看見某某高中的學生，穿著帥氣的制服，不禁羨慕起來，捶胸頓足地說，”__________________________________________“可惜，往事有如過往雲煙，永不復返。
請問這句話是:
(   ) (1) If I study harder, I will be able to go to the top high school.
(2) If I studied harder, I would be able to go to the top high school.
(3) If I had studied harder, I would have been able to go to the top high school.

(2) Grammaticality Judgment Task

Grammaticality Judgment Tasks usually are used to detect a speaker’s intuition concerning the form of a particular sentence. They have been widely used in SLA research (e.g., Liao, 1999; J. C. H. Wu 2001). In this study, in order to explore the second research question: do the two types of counterfactual conditionals in English (present reference and past reference)
constitute different levels of difficulty for Chinese EFL learners? The task of grammaticality
judgment of the two types of counterfactual conditionals and sentence constructions made up
by mixed counterfactual and non-counterfactual conditionals are presented to the subjects. The
Grammaticality Judgment Task consists of eighteen test items. The design of the task is
summarized below and illustrated in Figure 4-3:

(1) Both the if-clause and the main clause could be one of three types of conditionals (two
types of counterfactual and one type of non-counterfactual conditional). At this point,
we can devise nine test items.

(2) The second step is that the underlined part can be the if-clause or the main clause. After
taking this variable into consideration, we have eighteen test items in total.

<table>
<thead>
<tr>
<th>If-clause</th>
<th>main clause</th>
<th>underlined or not</th>
</tr>
</thead>
<tbody>
<tr>
<td>3</td>
<td>3</td>
<td>2</td>
</tr>
</tbody>
</table>

= 18

Figure 4-3: The design of the Grammaticality Judgment Task

The grading criterion is as follows. Since the subjects are requested to judge the
correctness of the whole sentences based on the underlined parts, it would make more sense if
the scores earned are added to the clause which is not underlined. For example, if subjects...
answer the following test item number (16) correctly, it would be assumed that he or she can clearly identify the correctness of the if-clause of the past-referenced counterfactuals. The score earned would be added to the past-referenced counterfactuals. And in the same vein, if the subjects correctly answer the test item number (17), the score earned would be added to the past-referenced counterfactuals as well (for the questionnaire, please refer to Appendix 2)².

( F ) If I saw you, I would have invited you. (test item 16)

( T ) If I had seen you, I would have invited you. (test item 17)

(3) Elicited Translation Task

Unlike the previous tasks in which subjects are asked to make judgments, in this task, the subjects are required to produce their own production data. More specifically, the subjects will be asked to translate fifteen Chinese sentences with counterfactual and non-counterfactual interpretations into English equivalents (See Appendix 3)³. Such a procedure has been assumed to require both the decoding of the stimulus sentence and the encoding of the translation, so subjects’ performance will approximate natural speech production (Larson-Freeman & Long 1984). And then the errors from the translated sentences will be collected and analyzed. As mentioned earlier in section 2.2.3.2, the theoretical assumption

² As mentioned in section 4.2, the possible mixed counterfactual conditionals (i.e., a counterfactual sentence with the conditional clause taken from past reference conditional and the main clause from presence/future) have been excluded in designing this task.

³ There are five translation test items for each kind of the conditionals.
about the role of contexts in this study is that Chinese language can express counterfactuals without contexts, if certain conditions are met. Therefore, the design of task will take into consideration the two conditions proposed in section 2.2.3.2. That is, the use of time temporal and internal semantic logic of the meanings. The following is an example of this kind:

假如我是你的話，我會不那樣做。（test item 1）
__________________________, I would not do that.

### 4.4 Procedures

In order to understand how subjects’ general English ability correlates to their learning of the construction, they were divided into three groups, according to their final grades of English of last semester. Each of them has roughly the same number of subjects: high achievers’ group (27 subjects), intermediate achievers’ group (34 subjects) and low achievers’ group (21 subjects). In the section 2.2.3.2 of Chapter 2 we propose that the use of time temporal and internal semantic logic helps to act as an indicator of counterfactuals.

4 According to Li & Thompson’s study (1981), variants of “if” words in Chinese include “如果” (ruguo), “假如” (jiaru), “假使” (jiashi), and “要是” (yaoshi). Each of them carries different degrees of hypotheticality. But Li & Thompson do not specify the degree of hypotheticality of the variants of “if” words mentioned above. When I was designing the Elicited Translation Task, using 如果 as the “if” word in some question stems seems sort of unnatural. Therefore, I choose to use 假如 as the “if” word throughout the Elicited Translation Task. As for the degree of hypotheticality between 如果 and 假如, 假如 carries a higher degree of hypotheticality and implies a counterfactual condition. The survey in two on-line concordances: VLC website concordance and the concordance of Academia Sinica (中研院平衡語料庫) shows “如果” is used much more frequently than “假如.” The number of example sentences of “如果” in the concordance of Academia Sinica (中研院平衡語料庫) is 2000 while 341 in VLC website concordance and the number of example sentences of “假如” in the concordance of Academia Sinica (中研院平衡語料庫) is 15 while 7 in VLC website concordance. This finding seems to imply that semantically 如果 is more prototypic than 假如 and therefore it is more neutral in tone.

5 These grades are the average English grades of the group members in the last semester.
subjects). To avoid the Hawthorne effect (Cohen & Manion, 1994), the subjects were not informed of the purpose of the study in advance.

Table 4-3: Background information of the subjects in the three groups

<table>
<thead>
<tr>
<th>Groups</th>
<th>high achievers’ group</th>
<th>Intermediate achieves’ group</th>
<th>low achievers’ group</th>
</tr>
</thead>
<tbody>
<tr>
<td>Average grades⁶</td>
<td>71</td>
<td>62</td>
<td>52</td>
</tr>
<tr>
<td>Cutting point</td>
<td>Above 66</td>
<td>between 65 and 45</td>
<td>Below 44</td>
</tr>
<tr>
<td>Male/female</td>
<td>18/9</td>
<td>15/19</td>
<td>8/13</td>
</tr>
<tr>
<td>Total</td>
<td>27</td>
<td>34</td>
<td>21</td>
</tr>
</tbody>
</table>

As for the scoring policy, each test item is worth one point and for the Elicited Translation Task, a point will be taken off if the subjects fail to use the backshifted tenses and write out the construction for past perfective modals. The statistical technique, paired t-test was applied in this study to provide quantitative empirical evidence. This technique is repeatedly performed to detect whether or not there exists a hierarchy of difficulty degree. As for the third research question which concerns the types and the locality of the occurrences of students’ errors, the errors collected from the Elicited Translation were analyzed to investigate the distribution and frequency of possible errors and plot the possible difficulties and whatever potential interference factors are involved in the learning of the counterfactual conditionals in English.