

CHAPTER FIVE

CONCLUSION AND IMPLICATION

In this chapter, first a summary of the whole study is represented. Then, there are some suggestions and pedagogical implications provided. The last part is the limitations of the present study.

5.1 Summary

Spelling is usually regarded as a fundamental element in learning English. Students have to fulfill spelling tasks in learning new words. If they fail, most teachers would attribute the problems to students' poor preparation and the lack of hard working. However, even though students have tried very hard to memorize the words, some kind of spelling errors are repeated. Moreover, the spelling errors seem random in the beginning, but after a closer look, some of them are found to share certain patterns. This intrigues the researcher to explore students' spelling errors. As vowel letter substitution occupies substantial portion in spelling errors, this study focuses on the spelling error of vowel substitution with a purpose to find out answers to the following questions. (1) Is there any tendency hidden behind the seemingly random spelling errors? (2) What factors govern the spelling errors and have them occur repeatedly? (3) What kind of role does students' phonological awareness in pronunciation play in vowel letter substitution?

To answer the questions mentioned above, two experiments designed in two stages are included in the study. In stage one, a vocabulary translation test is

conducted to collect students' data in spelling errors. In the test, 106 students are asked to translate Chinese words to their English equivalents. Test items are selected from vocabulary in English Textbook Book One (NICT 2000) through Textbook Four (NICT, 2001). As the focus of the study is on vowel letter substitution, the data are classified according to the replacing vowel letters. There are four categories in total: (1) Substitute letter **a**, (2) Substitute letter **e**, (3) Substitute letter **o**, and (4) Substitute letter **i**. Each of the categories is further divided based on the replaced vowel letters. For instance, Substitute letter **a** includes five sub-categories, which are: (1) Letter **a** replacing letter **e**, (2) Letter **a** replacing letter **o**, (3) Letter **a** replacing letter **u**, (4) Letter **a** replacing digraph **ea**, and (5) Letter **a** replacing letter **i**. Then the errors are explored from two perspectives according to students' background: a spelling strategy—sounding out words before spelling and L1 transfer based on contrastive analysis of English and Chinese phonetic systems. From the analysis, it is found that the causes for the substitutions mainly come from three reasons. The first is the confusion of similar sounds. The confusion results from the nearby places of articulation of the vowels, such as the confusion of front vowels /e/, /ɛ/, and /æ/. The second is the L1 transfer. Some distinctive features in English vowels which are absent in Chinese vowels usually cause confusion for the subjects, such as the distinction of tense and lax vowels. The third is the confusion of different representing systems. Mixing up letter names with letter sounds (letter name strategy) and mixing up letter forms with phonetic symbols are the contributing factors for the system confusion. For example, target word **letter** is spelled as *latter* by using letter name **a** to represent the letter sound /ɛ/ of letter **e**. Or letter **a** is pronounced as phonetic symbol /ɑ/. All these findings are testified in the stage two experiment.

The purpose of stage two is to seek evidence to support the findings of the stage one. Six students are singled out to participate in this stage, for they show some common error patterns in the stage one data. The experiment in this stage is designed with three tasks: reading, listening, and dictated spelling tests. The test items in the three tasks contain the confusing sounds in five groups, which are observed in stage one. Therefore each task includes 5 sub-tests which contains vowels: (a) /ɛ/, /e/ and /æ/ (as **west**, **gate**, and **bad**), (b) /ɛ/ and /ɪ/ (as **set** and **sit**), (c) /ɑ/ and /ʌ/ (**got** and **gut**), (d) /aʊ/, /ɑ/, and /ʌ/ (as **down**, **Don**, and **done**), (e) vowels preceded by letter **r**, or a consonant cluster with letter **r** -- (C) + letter **r** + V (as **rich** and **cram**).

The reading test is to assess students' differentiation of these similar or confusing sounds in oral production. The results show that students do try to make a distinction in pronouncing these vowels, but they do not succeed every time. The confusion of similar sounds does exist in the subjects' oral production. The listening test is to examine students' differentiation of the above mentioned vowels in perception. Similar results also show in this test: in some cases, students successfully discriminate the vowels, but in other cases, they don't. The confusion still exists in this area. The dictation spelling test is to rule out the affecting factors in spelling other than the pronunciation of the test items. In other words, students can only rely on the sounds they hear from the tape to spell the words. The results are consistent with those of stage one. Moreover, three more categories are found: (1) Substitute letter **ea/ee**. It seems that in stage two the subjects are starting to notice that digraph **ea** can be pronounced in 3 ways (/e/, /ɛ/, /i/). And the subjects further apply this to digraph **ee**. Therefore, three subcategories are found in substitute digraph **ea/ee**: replacing letter **a**, replacing **e**, and replacing letter **i**. (2) Substitute digraph **ow/ou** with two

subcategories: replacing letter **o** and replacing letter **u**.(3) Substitute letter **u** with two subcategories: replacing digraph **ou** and replacing letter **o**. The main reason for addition of patterns (2) and (3) may be that in stage two the subjects are tested through the way of dictation. They hear the pronunciation of target words from the tape instead of their own pronunciation. That is why they perform differently in two stages. Therefore a more complete range of error patterns have shown in stage two. After the exploration of the errors, most of them can be explained by the 3 main reasons found in stage one. First, under the cause sound confusion: (a) there are substitutions of letter **a** and letter **e** replacing each other and digraph **ea/ee** replacing letter **a** and letter **e** due to the confusion of front vowels /e/, /ɛ/, and /æ/. (b) there are substitutions of letter **o**, letter **u**, and digraph **ou/ow** replacing each other due to the confusion of /ʌ/, /ɑ/, and /aʊ/ (often reduced to simple vowel /ɑ/). (c) there are substitutions of letter **i** replacing letter **a** and letter **e** or letter **a** replacing **i** due to the confusion of /ɪ/ and /ɛ/ or together with the confusion of /e/, /ɛ/, and /æ/, (d) there is substitution of digraph **ea/ee** replacing letter **i** due to the confusion of /i/ and /ɪ/.

Second, under the cause of L1 transfer, there are substitutions of letter **o**, letter **u**, replacing each other, for in Chinese there is only one phoneme—low vowel /a/ similar to English vowels /ʌ/ and /ɑ/. In fact, many substitutions under the cause the sound confusion can also be attributed to the cause of L1 transfer. For instance, the confusion of front vowels /e/, /ɛ/, and /æ/ can also stem from L1 transfer for there is only one mid front vowel in Chinese. Third, under the cause of system confusion: (a) There are substitutions of letter **a** replacing letter **e** due to letter name **e** strategy, and letter **e** replacing letter **i** due to letter name **e** strategy, (b) There are substitutions of

letter **a** replacing letter **o** and letter **u** due to the confusion of letter form *a* and phonetic symbol [ɑ] and the confusion of sound /ʌ/ and /ɑ/. In conclusion, the causes of sound confusion, system confusions, and L1 transfer serve well to explain all the categories of vowel letter substitution in the stage two.

5.2 Pedagogical Implications

Spelling is a task of decoding; to decode sound to letter. Therefore it requires knowledge of letter-sound correspondence. Besides, as English phonological system does not completely stick to the principle of one grapheme to one phoneme, thus knowledge of spelling pattern is also required to make spelling not only phonetically plausible but also correct conventionally. According to the errors subjects make, the following recommendation are made for teaching implication:

Chinese subjects in this study apparently lack the ability of distinguishing vowels with similar sounds. Namely, they get confused with the sounds which sound alike and this problem in turn leads to spelling errors. One reason for that is the confusion of letter name and letter sound. Therefore it is important to clarify the concepts for students. Besides, maybe it is better for students to learn the alphabet letter first before starting a lesson in phonics. Thus students will be first equipped with the system of the letter names and the letter forms to avoid the confusion mentioned earlier (Teng, 2002).

The other reason for the failure of distinguishing similar sounds is that the subjects ignore the differences of the similar sounds, which may stem from L1 transfer. In Chinese phonetic system, vowels of similar sounds seldom cause confusion, and there is no such distinctive feature as tense or lax to determine the value of vowels. To deal with the difficulty resulting from the differences between the

two languages, it is important to contrast and compare the different features of the two languages and arouse the awareness of students to pay more attention to the differences of the target language. Students' focus in the initial stage of pronouncing practice should be guided to listen to and identify the crucial differences as Teng (2002) recommends in her study. In the meantime, teachers can provide students with more listening and oral practice by presenting minimal pairs to reinforce awareness of the significant distinctive features in English. Only when students are given adequate time and chances to become familiar with these distinctive features, can accurate pronunciation be possible and that eventually leads to a solid foundation for building an essential awareness of letter-sound correspondence.

Moreover, because English spelling system does not conform to one sound to one letter correspondence; there are vowel digraphs to represent long vowels and other different letter or letters to represent one single sound. To tackle this situation, Students need to be aware of this irregular part of the system, not just by rote memory but through the comparing and contrasting words in search for patterns and the generalizations that apply to the pattern (Templeton, 2003; Templeton 1986). In other words, teachers should foster students' ability to detect the words and sort out them according to the differences and similarities and thus reinforce their awareness of spelling patterns. For example, a vowel in a form of CVCe, with a final e in the end, is usually a long vowel. By providing word families or minimal pairs, teachers can guide students to explore the differences and similarity in between and to arrive at a generalization of a spelling pattern.

In addition, more and more studies show that solely dependence on phonics instructions to foster children's spelling ability at early age is not enough. Phoneme segmentation practice seems to play a more vital role in helping students in decoding

sound to letter, no matter the subjects are English native speakers (O'Connor, & Jenkins, 1995; Lennox & Siegel, 1994 cited in Hsieh, 2000) or Chinese native speakers (Chien, 2002). Teachers should adjust the learning activities according to students' need.

Last, an adequate attitude toward phonics instructions is brought to draw the attention of teachers and students. The NICT has published a "Phonics Workbook" for the eighth graders to help them understand the fundamental relationship between English pronunciation and spelling. However, many teachers (at least in our school) do not think that it is necessary to teach phonics systematically with the workbook. In other words, many teachers regard it as dispensable when class hour is running out, or they just allot very little time to phonics instructions. They think it is enough for students to incorporate phonics instructions in teaching vocabulary. In fact, according to many researchers (Ehri, et al, 2001; May, 1998; Morrow & Tracey, 1997), a direct and systematic instruction is more efficient for students. Teachers should be aware of this point. On the other hand, students themselves also ignore the importance of phonics. Many of them think phonics is redundant, since they have known how to read and to spell a word by learning phonetic symbols. They fail to notice that some spelling patterns decide the value of vowels and that kind of awareness is acquired through phonics instructions. It is suggested that after a solid foundation of letter-sound is built, then phonetic symbols are brought in teaching as mentioned earlier (Teng, 2002). Or a special attention should be paid, when teachers presenting phonetic symbols to students: the differences between letter forms and phonetic symbols should be reinforced. If both teachers and students can really pay attention to phonics instructions, it is believed that most students' problems in spelling would improve significantly.

In conclusion, students' initial awareness and recognition of the crucial differences between English and their language is the most important element and the key for their success in accurate pronunciation and in correct spelling. Adequate exposure to correct English pronunciation and teachers' careful guidance is the way to achieve the expected result.

5.3 Limitation and Suggestions for Further Study

This study focuses mainly on the vowels substitution of monosyllabic words. Vowels in other environment and the relations between vowels and consonants are not investigated. However, the substitution of vowel letter preceded by consonant **r** is explored since quite a few examples of this kind are found in the subjects' data (see note 3, p.48). Consonants **l** and **w** may also cast significant influence on vowel substitution. We do not explore such as influence because few examples are seen in the subjects' data.

The spelling errors in this study are explored mainly from the perspective of letter-sound correspondence in spelling, based on most of the students' strategy, sounding the word out before spelling it. Other factors affecting spelling errors, such as orthographic information and morphological information, have not been discussed. Besides, the number of subjects in stage two is rather small, further study should include more subjects to make the results more representative.

Last, all the explanations for the spelling errors are based on previous research and established theory, they are not confirmed directly by the subjects. Though the dictation spelling test is designed to rule out the other affecting factors in spelling, the best way to verify the findings seems to be through the subjects' direct answers. An interview or questionnaire for the subjects is recommended for future studies to

further justify the validity of the research.