CHAPTER 6

CONCLUSION

This concluding chapter consists of the following four sections.   Section 6.1 summarizes the major findings of the present study.   Section 6.2 proposes the pedagogical implications for English teachers in Taiwan.   Section 6.3 draws a final conclusion for the current study.   Section 6.4 describes the limitations of the present study and offers some suggestions for further research.

6.1   Summary of the Major Findings

This section will summarize the major findings of the present study.   The summary contains the following three parts: (1) the kinds of vocabulary learning strategies used by JHS students, (2) the relationship between vocabulary learning strategy use and vocabulary learning achievement and (3) the responses to the further questions.

6.1.1   The Kinds of Vocabulary Learning Strategies Used by JHS Students

The characteristics of the kinds of vocabulary learning strategies used by JHS students are summarized as follows:

JHS students as a whole are not very sophisticated users of vocabulary learning strategies.   They only moderately use overall strategies and five strategy categories, which is demonstrated by the result that the overall strategy use and the use of five strategy categories all have means falling within the medium range of 2.5 to 3.4.

The use of individual strategies again reflects that JHS students do not use vocabulary learning strategies very frequently.   Among the 57 strategy items, only 8 (14.04%) strategies belong to high frequency use, but most strategies belong to medium frequency use (47.37%) and low frequency use (38.60%).

Among the five strategy categories, JHS students use cognitive strategies most frequently and social strategies least frequently.   This finding is in line with Wang's

research on Taiwanese senior high school students.   However, there is a tendency that JHS students do not use the five strategy categories as frequently as senior high school students.

As for the use of determination strategies, JHS students employ guessing strategies more often than dictionaries strategies.   Contextual guessing is a very fundamental strategy that all JHS students should learn to employ well not only because it is of great help to complement the other guessing strategies, but also because it has a strong relationship with vocabulary learning achievement.   Besides, there is a tendency that JHS students prefer electronic dictionaries to conventional dictionaries, which is in agreement with early findings in Wang (2003) and Liao (2003) in Taiwan.

Concerning the use of social strategies, JHS students prefer asking others for information, but they do not like to study with others, implying the learners' assumption that "vocabulary learning is an activity best achieved individually" (Schmitt, 1997, p. 226).   Asking classmates for meaning is the most popular social strategies, while interacting with native speakers is used least frequently.

In terms of the use of memory strategies, there is a tendency that JHS students use "shallow" processing strategies more often than "deep" processing strategies. They particularly favor the strategies related to the form of a word, either spelling or sound, and a word's grammatical and morphological features.   On the other hand, they do not prefer strategies involved elaborative mental processing, such as association with related words, manipulating a word's meaning, contextualization, and imagery techniques.   The infrequent use of "deep" processing strategies is probably because they require greater cognitive effort than those with shallow processing.   Thus, they might be too difficult for younger learners to employ.

With regard to the use of cognitive strategies, JHS students show a marked preference for repetition strategies and mechanical means. "Verbal repetition," "take notes in class," and "written repetition" are the three most frequently used cognitive strategies. Besides, it appears that they prefer "ready-made" study aids to "not-ready-made" ones.

Concerning the use of metacognitive strategies, JHS students put great emphasis on self-test, which probably can be attributed to wash-back effect. Nevertheless, they do not actively increase exposure to English through media. Neither do they consider vocabulary learning as a long-term process and make plans for their own vocabulary learning.

As for the ten most frequently used strategies, JHS students pay great attention to the form of a word as well as mechanical repetition. The strategies used most often tend to involve in the shallow sensory level of processing and not engaging in the learning materials in an active manner.

As for the ten least frequently used strategies, JHS students seldom interact with others while studying words. They also seldom put words in a meaningful context, use physical actions, utilize "not-ready-made" study aids, and make plans for their own vocabulary learning.

6.1.2　The Relationship between JHS Students' Vocabulary Learning Strategy Use
　　　　and Vocabulary Learning Achievement

The characteristics of the relationship between vocabulary learning strategy use and vocabulary learning achievement are summarized as follows:

Both the Pearson correlation and one-way ANOVA results indicate that there is a strong relationship between JHS learners' overall vocabulary learning strategy use and their vocabulary learning achievement.

With regard to the use of five strategy categories, JHS students' vocabulary learning achievement has a strong relationship with their use of four strategy categories: determination, memory, cognitive, and metacognitive strategies, but not with the use of social strategies.   This is, perhaps, because learners are not familiar with paying attention to social relationships as part of the vocabulary learning process.

As for the use of individual strategies, the Pearson correlation results have shown that 32 strategies (56.14%) has strong positive correlations with learners' vocabulary learning achievement, while 3 strategies (5.26%) has strong negative correlations. According to the one-way ANOVA results, significant positive variations by achievement level are found in the use of 25 strategies, but no significant negative variation is found.   This finding confirms that more successful vocabulary learners not only used a wider range of strategies but also used them much more frequently (Ahmed, 1988; Lawson & Hogben, 1996; Kojic-sabo & Lightbown, 1999).

The individual strategies that have significant positive correlations with vocabulary learning achievement show the following characteristics.   First, more successful vocabulary learners use both "shallow" and "deep" processing strategies, which concords with Rubin (1975) and Ahmed (1989).   This suggests that more successful vocabulary learners pay attention to the form of a word as well as the meaning of a word.   They not only employ mechanical repetition, but also utilize association with related words, imagery and contextualization.   Second, students with better vocabulary learning achievement are good at getting unknown words' meaning, by means of guessing techniques, skillful use of dictionaries, and asking questions.   Third, more successful vocabulary learners pay more attention to the metacognitive aspect of vocabulary learning, through increasing exposure to English vocabulary, self-test, selective attention and regular review.   On the other hand, the individual strategies that has strongly negative correlations, suggesting that less

successful vocabulary learners favor utilizing actions, labeling physical objects and keeping vocabulary notebooks.

The High-scoring groups use the following six strategies significantly more often than the Mid-scoring and Low-scoring groups (i.e. H>M>L or H>M, H>L): Item 7 "guess from textual context," Item 20 "connect word to a personal experience," Item 26 "segment words into syllables when repeating," Item 41 "study the connection between spelling and pronunciation," Item 43 "use the vocabulary section in your textbook," and Item 49 "remember the word's part of speech." This finding clearly points out that the students in the highest level of vocabulary learning achievement pay much more attention to textual context, dividing words into syllables, active use of the learning materials, the matching between spelling and sound, word classes, and the personalization of information.

The Low-scoring group use the following nine strategies significantly less often than the Mid-scoring and High-scoring groups (i.e. H>L, M>L): Item 01 "analyze part of speech," Item 08 "bilingual dictionary," Item 09 "ask classmates for meaning," Item 18 "verbal repetition," Item 23 "test oneself with word tests," Item 37 "study the spelling of a word," Item 38 "study the sound of a word," Item 42 "say new word aloud while studying," and Item 47 "use reference books." This finding reflects that the students in the lowest level of vocabulary learning achievement pay much less attention to a word's sound, which is consistent with Wang's (2003) finding. Besides, they tend to be not very active in finding out an unknown words' meaning by analyzing word classes, asking classmates or consulting bilingual dictionaries, which agrees with Ahmed's (1989) finding.

The Low-scoring group uses the following ten strategies significantly less often than the High-scoring (i.e. H>L): Item 03 "analyze affixes and roots," Item 19 "use English-language media," Item 22 "written repetition," Item 24 "connect the word to

its synonyms and antonyms", Item 25 "group words together to study them", Item 28 "associate the word with other words which have the same Chinese translation," Item 36 "pay selective attention to words," Item 45 "use Keyword Method," Item 48 "remember affixes and roots," and Item 54 "learn the words of an idiom together."   It seems that most of the strategies involve deeper processing, such as association, grouping, and Keyword method.   Some strategies have something to do with word parts or multi-word "chunks."   Still some strategies involve increasing input and selective attention.

The variations in strategy use are most likely to be significant when the Low-scoring group is compared with the Mid-scoring or High-scoring groups, indicating the Low-scoring group's insufficient use of vocabulary learning strategies. On the other hand, only a small number of variations are found to be significant when the High-scoring and Mid-scoring groups are compared.   This is probably because it is not the frequency of strategy use that distinguishes these top two scoring groups, but the combination of strategies or the appropriateness of strategy use (Cohen, 1998).

According to the comparison of the top ten most frequently used strategies of the three scoring group, both the High-scoring and Mid-scoring groups use the determination strategy, Item 7 "guess from textual context," to find out an unknown word's meaning, but the Low-scoring group does not.   Instead, the Low-scoring group rely more on asking classmates or teachers for a new word's meaning.   In addition, although the three scoring groups employ verbal and written repetition very frequently, only the High-scoring use the strategy, Item 26 "segment words into syllables while repeating."   In brief, the comparison results again highlight that "guess from textual context" and "segment words into syllables" are of great importance to vocabulary learning.

6.1.3   The Responses to the Further Questions

The participants' responses to the further questions are summarized as follows:

First, the primary source of the participants' strategy learning is from school teachers, followed by reading books and cram school teachers.

Second, the major reason for the participants' strategy choice is because of convenience and ease of employment, followed by efficiency and longer retention.

Third, the strategies that the participants want to learn most have something to do with increasing natural input through interacting with native speakers and using English media.   They also hope to lean strategies related to verbal repetition and deep processing.   Furthermore, they express a desire to learn strategies concerning constantly learning lexical items and independently plan for vocabulary learning.

Fourth, some additional strategies offered by the participants are related to using English media, including learning on-line, reading English advertisements or labels, and watching English cartoons.   Some are related to mechanical repetition, including using verbal and written repetition at the same time and repeating after CD.

6.2   Pedagogical Implications

The current study sheds light on JHS students' use of vocabulary learning strategies and its relationship with vocabulary learning achievement.   According to the empirical findings of this study, several pedagogical implications are proposed.

6.2.1   Raising JHS Students' Awareness of Vocabulary Learning Strategy Use

Teachers should assist JHS learners to raise their awareness of vocabulary learning strategy use; that is, students must be made aware of the broad range of strategy options available to them.   The results of the present study indicate that JHS students only moderately use vocabulary learning strategies, in terms of overall strategy use, the use of five strategy categories, and the individual strategy use. Besides, according to students' responses to the further questions, teachers are the

major source of their learning of strategy use, which indicates that teachers play an important role in enhancing students learning strategies.

As a result, teachers should go beyond their traditional role of providing information and create learning environment in which JHS students can become acquainted with various kinds of vocabulary learning strategies. They have to integrate learning strategy training into regular classroom activities and guide students to recognize the effectiveness of vocabulary learning strategies. According to Wenden's (1991) recommendation, strategy training should be "contextualized" and "interactive." In other words, English teachers should provide authentic contexts for practicing strategy use and students should be given interactive guidance and feedback of supportive persons, such as teachers and peers. Niykos (1991) designs a Teachers Guide to learning strategy instruction, including the following six steps: (1) find out students' current strategies by means of diaries, interviews, or surveys; (2) model the new strategy or new strategies, telling students how and when to use; (3) give a rationale for each strategy presented; (4) provide ample practice with new strategies; (5) help students monitor the effectiveness of strategy use; (6) conduct sharing sessions in which students talk about their strategy use.

6.2.2　Considering JHS Students' Individual Differences: Taking Vocabulary
　　　　Learning Achievement as an Example

Teachers should take JHS learners' individual differences, such as vocabulary learning achievement, into account when recommending strategies. The results indicate that students with different levels of vocabulary learning achievement do show variations in their vocabulary strategy use. More specifically, the effect on strategy use by achievement level is most likely to be significant when the Low-scoring group is compared with the top two scoring groups, which suggests an extremely scant use of vocabulary learning strategies among the students in the lowest

scoring group.   It seems that the students with the poorest vocabulary learning achievement need more teachers' guidance to increase their strategy use.

Therefore, teachers should assist the poor vocabulary learners to make progress step by step.   First, teachers can introduce the strategies that the Low-scoring group uses significantly less often than the Mid-scoring group, helping them to make gradual progress toward the intermediate level of vocabulary learning achievement. For example, teachers can teach the Low-scoring students (1) how to make educated guesses through contextual clues, word parts, or word classes; (2) how to skillfully use dictionaries; (3) to pay more attention to the sound; (4) to engage in their learning materials in more active way; and (5) to take advantage of self-evaluation.

Second, teachers can introduce the strategies that the Low-scoring group uses significantly less often than the High-scoring group, helping students gradually advance toward higher levels of vocabulary learning achievement.   For example, teachers can teach them (1) pay attention to word parts; (2) how to make associations with related words; (3) focus on collocations; (4) to increase exposure; and (5) how to pay selective attention to words.

Third, teachers can introduce the strategies that the High-scoring group used significantly more often than the Mid-scoring group and Low-scoring groups, helping students become successful in vocabulary learning.   Teachers can explicitly instruct students (1) how to divide words into syllables; (2) to focus on the matching between sound and spelling; (3) how to guess from contextual clues; (4) to relate words to personal experiences; (5) to pay attention to word classes.

6.2.3   Instructing JHS Students to Use the "Shallow" and "Deep" Processing
        Strategies Together

Teachers should help JHS learners to increase using both the "shallow" and "deep" processing strategies.   They need to guide students to view these two types of

strategies as a supplement to each other, rather than a substitute for one other.   The results of the present study indicate that JHS students, in general, use more "shallow" processing strategies than "deep" processing ones.   However, according to the participants' responses to the further questions, they express a desire to learn deep processing strategies, such as connecting word to a personal experience or group words together within a storyline.   In addition, both the Pearson correlation and one-way ANOVA results indicate that vocabulary learning achievement has a strong relationship with not only the "shallow" processing strategies but also the "deep" processing ones.   More successful vocabulary learners use both "shallow" processing strategies (e.g. repetition) and "deep" processing strategies (e.g. association) significantly more frequently than less successful vocabulary learners.

Therefore, teachers should direct students to recognize the benefits of using both types of strategies and try to use them in combination.   Learners should be explicitly warned that "deep" processing strategies are only meant to complement rather than replace "shallow" processing strategies.   According to Schmitt & Schmitt (1993), a combination of these two types of strategies, beginning with more superficial ones and leading to deeper ones, may promote the best balance between speed of learning and long term retention.   In other words, greater amounts of "shallow" processing strategies should be introduced to beginner-level learners, gradually increasing toward more "deep" processing vocabulary learning as their language ability develops.   For example, teachers can first present vocabulary in various ways, such as focusing on the spelling and sound and analyzing the grammatical and morphological features, to strengthen students' short-term memory.   Then, to facilitate the long-term memory, teachers can guide students to elaborate the meaning by means of associating with synonyms or antonyms, imagery, and placing new words in context.

Although "deep" processing strategies might be cognitively so demanding that most JHS students may not be able to employ them yet (Schmitt, 1997), teachers still can introduce such potentially effective techniques to their students, make them know that these strategies are available to them, and encourage them to try out employing these techniques.

6.2.4   Guiding JHS Students to Use the "Guessing" and "Dictionary" Strategies in Combination

Teachers should facilitate student to employ "guessing strategies" and "skillful use of dictionaries" in combination.   The results of the present study show that both "guessing" (i.e. contextual clues, word parts, and word classes) and "dictionary" (i.e. bilingual) strategies have a strong relationship with learners' vocabulary learning achievement.   Besides, it is interesting to note that "guess from textual context" has the strongest association with learners' vocabulary learning achievement in which the High-scoring group uses it more frequently than the Mid-scoring group, who in turn uses it more frequently than the Low-scoring group.   In addition, contextual guessing it is usually used to supplement the other guessing strategies.   This highlights the significance of contextual guessing, which suggests that it is a very fundamental strategy that all students should learn how to employ.

Knight (1994) discovers that learners who use a dictionary as well as guess through context not only learn more words immediately after reading but also remember more after two weeks.   She also finds that high verbal ability students would look up a word even if they have successfully guessed its meaning.   Therefore, teachers can suggest students to first scrutinize the entire available information to guess the meanings of unknown words and then use dictionaries as a means of checking their guesses.   By consulting dictionaries, students can not only become more familiar with a finely tuned meaning or set of meanings of a word and but also

know how to actually use the word.

6.2.5　Providing Authentic Input and Communicative Interaction for Vocabulary
　　　Learning

　　　Teachers should provide students with more authentic input and communicative interaction for vocabulary learning.　The results of the present study indicate that the strategies that students want to learn most are "interactive with native speakers" and "use English-language media."　It seems that JHS students express a very strong desire to learn vocabulary in more natural and interactive way.　Besides, the results also reveal that these two strategies are strongly correlated with learners' vocabulary learning achievement.　According to Zimmerman (1997), interactive and communicative vocabulary activities can lead to better vocabulary learning.

　　　Teachers can teach English songs, movies, or stories in class to help students increase exposure to authentic input.　Then, they can guide students to discuss or negotiate the meaning of new words occurring in the authentic materials with their classmates.　Or teachers can require students to increase exposure to English vocabulary outside of the classroom, by asking them to find out their favorite English songs or stories, bringing them to class, and sharing them with classmates.　Although there are limited chances for students to interact with native speakers, teachers can integrate more interactive learning activities into classroom.　Students still can practice using vocabulary naturalistically through interacting with their classmates or through group-work.

6.2.6　Encouraging JHS Students to Take Charge of Their Own Vocabulary Learning
　　　Teachers should encourage students to take charge of their vocabulary learning and view vocabulary learning as a life-long process.　In other words, students must learn to take advantage of the full range of metacognitive strategies which aid them learn independently of teachers' support.　Kojic-Sabo & Lightbown (1999, p.190)

suggest that "learner initiative and independence are seen as to crucial factors related to higher level of achievement."   The results of the present study also reflect that JHS students' vocabulary learning achievement are found be strongly related to their use of metacognitive strategies, including self-evaluation, selective attention, increasing exposure, and spaced rehearsal.   Nevertheless, JHS students as a whole do not employ metacognitive strategies very frequently and they seem to be too dependent on their teachers.

As a result, teachers should instruct students how to make plans and organize their own vocabulary learning.   They can ask students to (1) write down how much free time they have after class; (2) set possible short-term objectives for themselves, such as learning 5 words each day; (3) select appropriate approaches to learn different words; (4) review newly learned lexical items periodically and persistently; (5) evaluate how well they have learnt; and (6) set long-term goals for their vocabulary learning.   As for increasing exposure to English vocabulary outside the classroom, teachers can encourage students to start with easier materials, such as reading English signs or advertisements.   And then they can recommend students to read English magazines or newspapers which are edited especially for JHS students.

6.3   Concluding Remarks

As Nation (1982) and Meara (1996) rightly observe, vocabulary learning is an on-going process.   "Being able to remember one meaning of a list of words within a week or two is easy, but developing a functional lexicon that contains morphological, semantic, syntactic, pragmatic, and emotional connections needs a gradual process that takes much more time and efforts" (Gu, 2003, p. 16).

Although language learners encounter a great difficulty in learning a large amount of vocabulary necessary to achieve fluency, they can help themselves learn more efficiently and effectively through adopting appropriate vocabulary learning

strategies.   According to Chamot (1987, p. 82), "second language learners are not mere sponges acquiring the new language by osmosis alone.   They are thinking, reflective beings who can consciously apply mental strategies to learning situations both in the classroom and outside of it."   As a result, teachers should put more emphasis on learner-centered instruction and learner empowerment, guide students to raise their awareness of strategy use, and explicitly instruct them how to employ a wide range of vocabulary learning strategies.   Through explicit strategies instruction, teachers can help students become more self-regulated ones who can approach vocabulary learning with confidence and select the most appropriate strategies to complete the learning task.

In brief, vocabulary learning strategies should be among the first considerations of English teachers who want to enhance students' vocabulary learning.   Utilizing appropriate strategies can make vocabulary learning quicker, easier, more effective, and more enjoyable.

6.4   Limitations of the Present Study and Suggestions for Further Research

Although this study provides several useful insights into the kinds of vocabulary learning strategies used by JHS students and their relationship with vocabulary learning achievement, it still has several limitations.   According to these limitations, some suggestions are offered for further studies.

First, the present study only recruits the participants from the same grade, i.e. the third grade, and from the same junior high school.   The application of the results to other populations with different educational backgrounds may be limited.   In order to make the findings more representative and generalized, further studies need to recruit more students from different grades at different junior high schools in Taiwan.

Second, the present study only employs the quantitative method to explore JHS students' vocabulary learning strategies.   The self-report questionnaire is the single

source of information in the present study.   It is not clear whether the participants truthfully answer the questions or not and whether they actually use the strategies or not.   Their responses may be just their beliefs or thoughts that they have about their use of strategies.   In order to investigate students' actual use of strategies, further research need to employ multiple techniques, combining quantitative materials with qualitative methods, such as classroom observations, think-aloud protocols, diaries, interviews, and so forth.   It would be more useful to correlate results from quantitative and qualitative methods to see how closely they relate to each other. Although such multiple sources are not feasible for this study, the findings of the present study still have shed light on JHS students' use of vocabulary learning strategies.

Third, the current study only investigates how JHS students' vocabulary learning strategy use is related to one single variable, i.e. vocabulary learning achievement. However, there are still other variables that might be related to the selection or use of vocabulary learning strategies, such as gender, age, learners' general English proficiency, motivation, learning style, majors and beliefs about language learning, etc. Further studies need to be conducted to investigate whether learners' strategy use is related to these variables.

Fourth, the current study makes a preliminary attempt at comparing the vocabulary strategy use among the students in different educational stages.   Some similarities in vocabulary strategy use are found when the participants in the present study are compared with the senior high school students (Wang, 2004) study and college freshmen (Liao, 2004); on the other hand, several differences found in their vocabulary strategy use.   However, the current study still could not provide adequate evidence to support that the differences are due to the factor of age because there are slight differences among the questionnaires used in the present study, Wang's study,

and Liao's study.   Thus, further studies can adopt a longitudinal approach to explore whether vocabulary learning strategy use actually changes as students grow older.

Fifth, the present study only explores JHS students' variations in vocabulary learning strategy use in terms of frequency of use.   The result shows that most variations are found to be significant when the Low-scoring group is compared with the Mid-scoring or the High-scoring groups.   However, few significant variations are found when the High-scoring and the Mid-scoring groups are compared.   To explore the actual differences between the High-scoring and Mid-scoring groups, further studies need to put other factors, such as the appropriateness, the flexibility, the combination, or the regularity of strategy use, into consideration.