CHAPTER 2

LITERATURE REVIEW

As Nation (2001) notes, vocabulary learning strategies are a part of language learning strategies which in turn are a part of general learning strategies. Hence, before discussing research specifically on vocabulary learning strategies, this chapter will review the literature on language learning strategies first.   Section 2.1 introduces the definitions of language learning strategies, different taxonomy schemes of language learning strategies, and various studies of the relationship between language learning strategy use and language performance[2].

Section 2.2 reviews the literature concerning vocabulary learning strategies, including the definitions of vocabulary learning strategies, various classification schemes of vocabulary learning strategies, and research in the association between vocabulary strategy use and language performance.

2.1   Language Learning Strategies

The study of language learning strategies has become an "explosion activity" (Skehan 1991, p. 285) since 1970s when the focus of teachers as well as researchers has shifted from the methodology to the learner.   Researchers and teachers began to notice that some students still could approach the language learning tasks in more successful ways than others regardless of the teaching methods or the learning environments.   It was the learners themselves that resulted in learning variations. Besides, under the influence of a cognitive view of learning, language learners were no longer viewed as passive recipients who only responded to what was taught, but as active participants who voluntarily act on new information in the learning process. Therefore, Hosenfeld (1979, p. 52) argued that "instead of focusing upon the teaching

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[2] According to Lan & Oxford (2003), language performance is a general term which refers to any of the following: language proficiency (i.e., performance in relation to general standards of competence), language achievement (i.e., performance linked to a specific curriculum), and language task behaviors (i.e., performance on specific language tasks).

act (or language stimulus) and viewing learning as adapting to this act, we should initially focus upon the learning act and view teaching as adapting to learning." This trend of "focus on learners" has inspired researchers to observe the behaviors and characteristics of good language learners (Rubin, 1975; Stern, 1975; Naiman et al., 1978). These studies demonstrated that successful learners did apply a variety of strategies that appeared to contribute to their success in language learning. Consequently, the "good language learner" studies have stimulated a growing body of research on language learning strategies.

2.1.1　Definitions of Language Learning Strategies

The definition of "language learning strategies" originates from that of general learning strategies which refer to special behaviors or thoughts used by learners to facilitate the obtaining, storage, retrieval or use of information (Rigney, 1978; Dansereau, 1985; Weinstein & Mayer, 1986). On the assumption that language learning is like other kinds of learning, students can also utilize strategies while learning a second or foreign language. Accordingly, language learning strategies have been defined as learning strategies used to enhance their progress in developing L2 skills and further, to attain proficiency or competence in the target language (Bialystok, 1983; Oxford, 1992/1993). In order to fully convey the excitement or richness of language learning strategies, Oxford (1990, p.8) expanded the definition by saying that "learning strategies are specific actions taken by the learner to make learning easier, faster, more enjoyable, more self-directed, more effective, and more transferable to new situations." She claimed that learning strategies had an important role to play in language learning because appropriate strategies resulted in improved proficiency and greater self-confidence.

Language learning strategies themselves are not inherently good or bad; they are neutral until the context in which they are used is thoroughly considered (Politzer &

McGroarty, 1985; Oxford, 2001).　Although there are still conflicting views

concerning the concept of language learning strategies, most researchers have

accepted that language learning strategies have the following characteristics: they are

goal-oriented, consciously deployed, amenable to change, observable (behavioral) or

non-observable (mental), contributing either directly or indirectly to learning, and

influenced by variety of factors. (Wenden, 1987; Oxford, 1990; Ellis, 1994).

2.1.2　Classifications of Language Learning Strategies

　　　　Since the late seventies, a number of researchers have devoted to identifying all

possible strategies used by L2 learners and endeavored to classify them in a

systematic way.　The results of these studies are summarized in Table 2.1.

Table 2.1 Classification Systems of Language Learning Strategies

Source	Strategy Categories	
Rubin (1975, 1981)	1. Direct strategies 2. Indirect strategies	
Naiman et al. (1978)	1. Active task approach 2. Realization of language as a system 3. Realization of language as a means of communication 4. Management of affect demands 5. Monitoring L2 performance	
Bialystok (1978)	1. Functional practicing 2. Formal practicing	3. Monitoring 4. Inferencing
O'Malley et al. (1985a; 1985b)	1. Metacognitive strategies 2. Cognitive strategies 3. Social-affective strategies	
Oxford (1990)	1. Direct strategies　1-1 Memory strategies 　　　　　　　　　　　1-2 Cognitive strategies 　　　　　　　　　　　1-3 Compensation strategies	
	2. Indirect strategies　2-1 Metacognitive strategies 　　　　　　　　　　　2-1 Affective strategies 　　　　　　　　　　　2-3 Social strategies	

Based on the research on good language learners' strategies, Rubin's (1975, 1978) introduced a dichotomy system that subsumes the identified strategies under two primary groupings: direct strategies and indirect strategies. The first category consisted of processes that may directly affect learning, such as clarification, guessing, memorization, and practice. The second category contained strategies that may contribute indirectly to learning, such as creating practice opportunities and using production tricks.

According to the interviews with good adult learners, Naiman et al. (1978) proposed an alternative classification scheme which consisted of five broad categories of learning strategies and a number of secondary strategies. The five main categories were common to all good language learners interviewed, including (a) an active task approach, (b) realization of language as a system, (c) realization of language as a means of communication and interaction, (d) management of affective demands, and (e) monitoring of second language performance.

Bialystok (1978) included four categories of learning strategies in her model of second language learning accounting for the interrelationship among input, knowledge, and output. She hypothesized that the type of strategy utilized by the learner depended on the type of knowledge[3] required for a given task. The four categories of strategies identified in her model were functional practicing (i.e., attempts to maximize exposure to language through communication), formal practicing (i.e., conscious study of the L2 or attempts to automatize already learnt explicit knowledge), monitoring (i.e., noting errors), and inferencing (i.e., guessing).

O'Malley et al. (1985a, 1985b) made the first attempt to propose a theoretically motivated taxonomy which was anchored in a cognitive theory of information processing. They identified a wide range of language learning strategies through a

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[3] There are three types of knowledge discussed in the model: explicit linguistic knowledge, implicit linguistic knowledge, and general world knowledge.

series of studies involving classroom observations, interviews with students and teachers, and think-aloud protocols.   Then, the strategies identified were categorized based on the classification framework proposed by Brown and Palincsar (1982) who formulated general learning strategies in an information-processing model which contains an executive (metacognitive) function as well as an operative (cognitive-processing) function.   Metacognitive strategies can be applied to virtually all types of learning tasks, whereas cognitive strategies are more directly related to a specific learning task and objective.   Furthermore, O'Malley et al. added a third category of strategies which concerned the influence of social and affective processes on learning.   Social/affective strategies involve interacting with another person to assist learning or using affective control to assist a learning task.   Finally, a tripartite classification scheme of language learning strategies was developed, including metacognitive, cognitive, and social-affective strategies.

Oxford (1990) proposed "perhaps the most comprehensive classification of language learning strategies to date" (Ellis, 1994, p.539).   Compiling an extensive list of strategies identified in early studies, Oxford aimed to subsume within her taxonomy virtually every strategy mentioned in previous literature.   Building on earlier classifications (Rubin, 1981; O'Malley et al., 1985a/b), language learning strategies were categorized into two major classes, direct and indirect, and subdivided into six strategy groups.   Direct strategies included memory, cognitive, and compensation strategies; indirect strategies consisted of metacognitive, affective and social strategies.   According to Oxford, direct and indirect strategies support each other and these six strategy groupings function as a mutual support network within which various types of strategies assist and connect with one another's effects in order to improve L2 learning.   The definition of each strategy category is specified as follows (Oxford & Crookall, 1989, p. 404):

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1. **Direct strategies** directly involve and deal with the target language.
   1-1 *Memory strategies* – techniques specially tailored to help learners to store new information and retrieve it later, e.g., grouping, imagery, rhyming, moving physically, etc.
   1-2 *Cognitive strategies* – skills that involve manipulation or transformation of the language material in direct ways, e.g., reasoning, analysis, note-taking, summarizing, and practicing in naturalistic settings.
   1-3 *Compensation strategies* – behaviors used to compensate for missing knowledge of some kind, e.g. guessing meanings from context and using synonyms and gestures to convey meaning.
2. **Indirect strategies** support and manage language learning.
   2-1 *Metacognitive strategies* – behaviors used for centering, arranging, planning, and evaluating one's learning, e.g., evaluating one's progress, planning for language tasks, consciously searching for practice opportunities, etc.
   2-2 *Social strategies* – actions involving other people in the language learning process, e.g., questioning, cooperating with peers, etc.
   2-3 *Affective strategies* – techniques which help learners to gain better control over their emotions, motivations, and attitudes related to language learning, e.g. reducing anxiety, self-encouragement and self-reward.

Oxford grounded her classification framework on the theory that the learner should be perceived as a "whole person" who used intellectual, social, emotional, and physical resources and was not merely the cognitive/metacognitive information-processing machine. Therefore, Oxford argued that her taxonomy was conceptualized in a broader way, including the social and affective sides of the learners as well as the more intellectual (cognitive) and "executive-managerial" (metacognitive). In addition, Oxford's classification system served an important and practical function. It provided the foundation for designing a questionnaire, the Strategy Inventory for Language learning (SILL), which has become the most popular instrument for assessing learners' use of language learning strategies to date.

In general, the classification systems of language learning strategies were constructed in a relatively diverse and incoherent fashion. Different researchers used different criteria to classify and label the identified strategies, causing inconsistencies

and mismatches across existing taxonomies.   There are systems related to successful

language learners (Rubin, 1982; Naiman et al., 1978), systems which are linguistically

based (Bialystok, 1978), systems based on the functions of cognitive psychology

(O'Malley & Chamot, 1990), and systems based on the "whole person" perspective

(Oxford, 1990).   "The proliferation of strategy systems has caused problems for the

researchers who believe it is important to compare results across studies" (Oxford &

Ehrmann, 1995, p. 363).   Therefore, the classification of language learning strategies

still needs further development and standardization.

2.1.3   Studies on the Relationship between Language Learning Strategy Use and

   Language Performance

  The use and selection of language learning strategies has been shown to be

affected by many factors, such as age, gender, nationality/ethnicity, learners' language

proficiency, motivation level, learning style, field of specialization, and so on (Oxford

& Nyikos, 1989; Ellis, 1994, p. 540-545).   Among all these variables, research on L2

learning has repeatedly demonstrated that there is a significant association between

learners' strategy use and language performance (Oxford & Nyikos, 1989; Oxford &

Burry-Stock, 1995; Green & Oxford, 1995).   The detailed findings about how

learners' strategy use relates to their language performance are going to be discussed

in the following.

2.1.3.1   Studies on "Good Language Learners"

  Early research on "good language learners" suggested the link between language

learners' strategies and language performance (Rubin, 1975; Stern, 1975; Naiman, et.

al, 1978).   Researchers observed what good language learners did to make them

successful and listed the special strategies and characteristics that were presumed to

be essential for the success of L2 learning.   For example, Rubin (1975) reported the

good L2 learners (1) were willing and accurate guessers, (2) had a strong drive to

communicate, (3) were often uninhabited, (4) focused on form by looking patterns and analyzing, (5) took advantage of all practice opportunities, (6) monitored their speech as well as that of others, and (7) paid attention to meaning.   Stern (1975) identified 10 features that marked out good language learning: (1) having a personally relevant learning style, (2) actively approaching the learning task, (3) being tolerant of the target language, (4) developing sufficient linguistic knowledge, (5) experimenting and planning, (6) attending to meaning, (7) practicing, (8) using the language to communicate, (9) monitoring, and (10) thinking in the target language.   According to Rubin and Stern, successful language learners not only employ cognitive strategies (e.g., practicing communicating in the target language) but also use metacognitive strategies (e.g. monitoring).   In subsequent studies, Naiman et al. (1978) added that good language learners realized a need to handle the affective demands arising from language learning (e.g., being able to laugh at mistakes).   Although the "good language learners" research provides insights into the kind of characteristics and strategies associated with successful language learning, it has been criticized for the emphasis on a single set of learners, i.e. the successful ones, without contrasting with less successful language learners.   It was still unclear whether "poor" learners did really tackle L2 learning in such different ways from good learners.   Therefore, subsequent studies have attempted to overcome this shortcoming by comparing the strategies used by both more and less successful learners.

Abraham & Vann (1987) and Vann & Abraham (1990) compared the language learning strategies used by successful and unsuccessful ESL university learners. Results of their research revealed that unsuccessful learners did employ strategies, sometimes even as frequently as their more successful peers, but the strategies were used in a random, unconnected, and uncontrolled manner.   On the contrary, more effective learners showed careful orchestration of strategies, targeted in a relevant and

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systematic way at specific L2 tasks.   They concluded that unsuccessful learners were not inactive, as had often been previously assumed, but seem to lack the metacognitive knowledge about task requirements that would allow them to flexibly select more appropriate strategies for the language task at hand.

2.1.3.2   Quantitative Studies Employing Statistical Procedures

Below are a number of quantitative studies which go deeper into the relationship between learners' strategy use and L2 proficiency by means of statistical correlation techniques.   They have sought to examine whether there are specific strategies that are statistically related to L2 proficiency.

O'Malley et al. (1985a) conducted a descriptive study in order to find out what learning strategies students used to facilitate their learning of English and to determine if the strategies varied depending on the level of proficiency or on the type of language tasks.   The subjects were 70 high school students enrolled in ESL classes, who are classified as at the beginning or intermediate levels by their schools. Through classroom observations and interviews with students and teachers, a wide range of learning strategies were identified and then classified into three main categories: metacognitive, cognitive, and social/affective strategies.   The results revealed that both beginning-level and intermediate-level high school students were able to describe their use of an extensive variety of learning strategies.   There were several interesting findings found in the study.   First, intermediate-level students (34.9%) reported using metacognitive strategies more frequently than beginning-level students (27.4%).   The researchers suggested that a certain basic proficiency in a second language might be a prerequisite for students to be able to manage and reflect on their own learning.   Second, analysis of cognitive strategies showed that students at both levels favored repetition and note-taking which required less active manipulation and transformation of the learning materials.   But some differences

were found between beginning and intermediate students in cognitive strategy use. Beginners tended to rely more on translation and imagery; on the other hand, intermediate students tended to use contextualization more frequently.   Third, in terms of social-affective strategies, the reported occurrences were similar at both levels.   Finally, analysis of the learning tasks showed that the most frequently used strategies were reported for discrete-point tasks such as vocabulary learning (16.6%) and pronunciation (13.8 %), which were less conceptually complex than integrative tasks such as listening comprehension and oral presentation.   In sum, the results of this study clearly showed that many differences in strategy use did exist in the two levels of students although there were some similarities.

Green and Oxford (1995) investigated how EFL learners' strategy use related to L2 proficiency level as well as to gender[4].   The participants were 374 university students who were placed in three course levels, Pre-basic, Basic, and Intermediate, according to their scores in a general proficiency test.   The instrument used to measure the strategy use was Oxford's SILL in which students were asked to respond to 50 statements, such as "I try to find patterns in English, on a 5-point Likert scale ranging from 1 (Never or almost never true of me) to 5 (Always or almost always true of me).   In overall strategy use, the results showed that students at higher proficiency level reported using strategies more frequently than lower level students.   A closer analysis indicated that although there was no significant difference between the Intermediate (M=3.15) and Basic (M=3.12) students, the two top proficiency levels, significant differences did occur between each of those two levels and the Pre-basic level (M=2.88).   As to the six categories of strategies, proficiency level had a significant effect for the cognitive, compensation, metacognitive, and social strategies, in which more proficient learners showed an increase in frequency of use.   Two other

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[4] The results about gender were not included in this literature review because the factor, gender, was not the emphasis of this present study.   For detailed information, please see Green & Oxford (1995).

categories of strategies, memory and affective strategies, displayed no significant difference among proficiency levels.   At the individual strategy level, about one third of the strategies were used more often by more successful students.   All or almost all of these strategies, such as starting conversations in English, watching TV or movies in English, and reading without looking up all new words, involved active use of the target language, with a strong emphasis on practice in natural or naturalistic situations. Finally, the researchers suggested that the relationship between strategy use and language proficiency was best visualized as ascending spiral in which active use strategies help students develop higher proficiency, which in turn proficient students became more capable of employing these active strategies.

Park's (1997) study provided evidence that language learning strategies are significantly associated with L2 proficiency in an Asian context.   The subjects were 332 EFL students at Korean universities in which their language learning strategies were measured by the SILL (ESL/EFL version) and L2 proficiency was determined by TOEFL.   Park divided the subjects into three groups according their strategy use: low-, medium-, and high-strategy groups and then each group's TOEFL scores were calculated.   Results showed that the relationship between language learning strategies and L2 proficiency was "linear"; that is, the more frequently students use strategies, the higher TOEFL scores they had.   Another finding was that all six categories of language learning strategies as well as overall language learning strategies were significantly correlated with the TOEFL scores, which suggested the importance of quantity of strategy use in L2 proficiency.   Moreover, results indicated that cognitive and social strategies were more predicative of TOEFL scores than the other four strategy categories.

With regard to the studies in Taiwan, both Klassen (1994) and Yang (1994a), using SILL to assess college students' strategy use, found out that language learning

strategies were used at a medium frequency level and compensation strategies were the most frequently used category.   Yang (1994b) undertook another study to explore how learner variables affect students' approaches to English learning.   She reported that students' perceived English proficiency level, compared to their classmates and native speakers, showed a significant effect on their use and choice of learning strategies.   The results revealed that the higher students perceived their language proficiency, the more frequently they would use various language learning strategies to assist their English learning.

2.1.3.3 Summary

Some general conclusions can be drawn from the above studies.   First, language strategy use is strongly associated with language performance.   And the relationship should be conceptualized as "bi-directional", as shown in Figure 2.1.

Figure 2.1 The relationship between learning strategies and learning outcomes

(Source: Ellis 1994, p. 530)
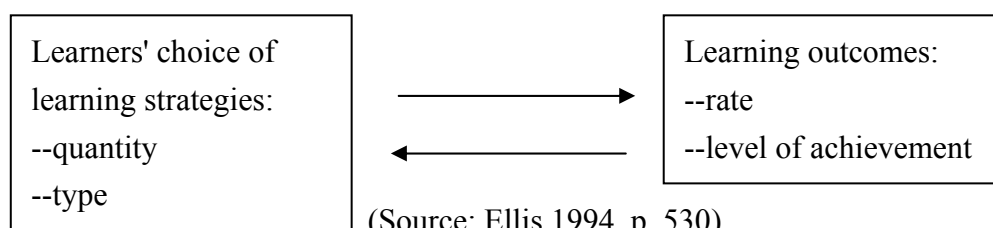
Research has revealed that strategy use both results from and leads to better language performance.   For example, Green & Oxford (1995) showed that students who were better in language performance reported greater strategy use, whereas Park (1997) demonstrated that higher level and frequency of strategy use contributed to better language performance.   Second, differences between more and less successful language learners have been found in the "range" and "number" of strategies used. More successful language learners use a greater variety and a greater number of learning strategies.   Third, it is not any individual strategy that is related to better performance in L2.   In fact, successful learners use a combination of strategies in a highly orchestrated way, matching those strategies to the demands of learning tasks.

2.2   Vocabulary learning strategies

Research into language learning strategies has found that more effective L2 learners usually tailor strategies to fit the requirements of the language task at hand, which indicates that the types of learning tasks have an important part to play in learners' strategy use.   Hence, in order to provide more immediate and precise pedagogical benefits, some current studies have advocated that more specific taxonomies should be constructed if learners' strategy use in different language skill areas or learning tasks is concerned (McDonough, 1999; Hsiao & Oxford, 2002).

Among all language skills or tasks, "the study of vocabulary-learning strategies is a promising area of enquiry.   This is because it is possible to define the learning targets and strategies very precisely" (Ellis 1994, p.554).   Besides, studies on general language learning strategies have found that strategies are specifically applicable to vocabulary learning.   It has been demonstrated that more frequent strategy use is reported for the task of vocabulary learning than for other language learning activities (Naiman et al., 1978; O'Malley et al., 1985a).   This might be due to the relatively discrete nature of vocabulary learning which makes it easier to apply strategies effectively (Chamot, 1987).   According to the above reasons, the present study is motivated to center on investigating the vocabulary-specific strategies.

2.2.1   Definitions of Vocabulary Learning Strategies

Vocabulary learning is aimed at not only remembering the lexical items but also using them automatically in a wide range of language contexts when the need arises (McCarthy, 1984).   Therefore, the concept for "knowing" a word and that for "using" a word should be both incorporated into the definition of vocabulary learning strategies.   As for the learning process of L2 vocabulary, Brown and Payne (1994, as cited in Hatch & Brown, 1995, p. 373) have identified five steps: (a) having sources for encountering new words, (b) getting a clear image, either visual or auditory or

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both, of the forms of the words, (c) learning the meaning of the words, (d) making a strong memory connection between the forms and the meanings of the words, and (e) using the words.   Accordingly, all strategies for learning L2 vocabulary, to a certain extent, are associated with these five steps.   Recently, Jiménez Catalán (2003, p.56) proposed a thorough definition for vocabulary learning strategies: knowledge about the mechanisms (processes, strategies) used to learn vocabulary as well as specific actions or mental operations taken by learners to (a) find out the meaning of unknown words, (b) retain them in long-term memory, (c) recall them at will, and (d) use them in oral or written mode.

2.2.2   Classifications of Vocabulary Learning Strategies

Research on vocabulary learning strategies is still in an embryonic state (Schmitt, 1997).   Most studies in this field have focused on investigating a small set of vocabulary learning strategies.   For example, some studies center on researching memory strategies or mnemonic techniques and their effect on retention (Cohen & Aphek, 1980; Pressley et al., 1982; Brown & Perry, 1991).   Some studies put emphasis on exploring the vocabulary strategies used in reading, such as guessing from the context (Huckin, Haynes, and Coady, 1993).   Only a few studies take a broader perspective to investigate vocabulary learning strategies as a whole, which provides more elaborate accounts of vocabulary learning strategies.   Table 2.2 summarizes the different classification systems of vocabulary learning strategies.

Table 2.2 Classification Systems of Vocabulary Learning Strategies

Source	Strategy Categories
Stoffer (1995)	1. Strategies involving authentic language use 2. Strategies used for self-motivation 3. Strategies used to create mental linkages 4. Memory strategies 5. Strategies used to organize words 6. Strategies involving creative activities 7. Visual/auditory strategies 8. Strategies involving physical action 9. Strategies used to overcome anxiety
Gu & Johnson (1996)	1. Metacognitive regulation 5. Rehearsal strategies 2. Guessing strategies 6. Encoding strategies 3. Dictionary strategies 7. Activation strategies 4. Note-taking strategies

Schmitt (1997)	1. Discovery strategies 1-1 Determination strategies (DET)
	                1-2 Social strategies (SOC)
	2. Consolidation 2-1 Social strategies (SOC)
	    strategies 2-2 Memory strategies (MEM)
	                2-3 Cognitive strategies (COG)
	                2-4 Metacognitive strategies (MET)

Nation (2001)	1. Planning 1-1 Choosing words
	            1-2 Choosing the aspects of word knowledge
	            1-3 Choosing strategies
	            1-4 Planning repetition
	2. Sources 2-1 Analyzing the word
	            2-2 Using context
	            2-3 Consulting a reference source in L1 or L2
	            2-4 Using parallels in L1 and L2
	3. Processes 3-1 Noticing
	            3-2 Retrieving
	            3-3 Generating

The first investigation of overall vocabulary learning strategies was conducted by Stoffer (1995).   She carried out a vocabulary strategy survey and then developed a Vocabulary Learning Strategy Inventory (VOLSI).   Using statistical factor analysis which provided an empirical basis for category assignment, Stoffer found that the 53

VOLSI items clustered into the nine major groups: (1) authentic language use; (2) self-motivation; (3) creating mental linkages; (4) memory strategies; (5) organizing words; (6) creative activities; (7) visual/auditory strategies; (8) physical action; and (9) overcoming anxiety.

Gu and Johnson (1996), based on previous quantitative and qualitative research (Ahmed, 1989; Gu, 1994; Oxford, 1990), developed a vocabulary learning questionnaire which aimed to elicit students' beliefs[5] about vocabulary learning and their use of a considerable number of vocabulary learning strategies (91 individual strategies in total). The strategies were grouped into two general parts: Metacognitive regulation and Cognitive strategies which in turn comprised six subgroups, guessing strategies, dictionary strategies, note-taking strategies, memory strategies (rehearsal), memory strategies (encoding), and activation strategies. Thus, there were seven major dimensions in the taxonomy. And each dimension had several categories under it. For example, metacognitive regulation was subdivided into two categories: selective attention and self-initiation. Guessing strategies contained two categories: using background knowledge/ wider context and using linguistic cues/ immediate context.

Schmitt (1997) proposed a very comprehensive taxonomy of vocabulary-specific strategies. The taxonomy consisted of 58 individual strategies which were compiled from the following three sources: vocabulary reference books and textbooks, Japanese intermediate level students' self-reports and teachers' experiences. According to the Discovery/ Consolidation distinction and Oxford's classification system, two major groups and five subcategories were distinguished. The definition of each strategy categories is elucidated as follows (Schmitt, 1997, p. 205-6):

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[5] In Gu & Johnson's questionnaire, students' beliefs about vocabulary learning were examined in the following three aspects: vocabulary should be memorized; vocabulary should be acquired in context; and vocabulary should be studied and put to use.

1. Strategies for the discovery of a new word's meaning
   1-1 **Determination strategies** (DET) are used by an individual when facing with discovering a new word's meaning without recourse to another person's expertise.
   1-2 **Social strategies** (SOC) use interaction with other people to find out a new word's meaning.
2. Strategies for consolidating a word once it has been encountered
   2-1 **Social strategie**s (SOC) use interaction with other people to improve vocabulary learning.
   2-2 **Memory strategies** (MEM) relate new material to existing knowledge.
   2-3 **Cognitive strategies** (COG) exhibit the common function of manipulation or transformation of the target language by the learner.
   2-4 **Metacognitive strategies** (MET) involve a conscious overview of the learning process and making decisions about planning, monitoring, or evaluating the best ways to study.

Based on the Discovery/ Consolidation distinction between vocabulary activities suggested by Cook & Mayer (1983) and Nation (1990), Schmitt divided vocabulary learning strategies into two major groups: Discovery strategies (i.e., those used for gaining initial information about new word) and Consolidation strategies (i.e., those used for remembering a word once it has been introduced).   The discovery strategy group comprised two strategy categories: determination and social strategies; the consolidation strategy group included four strategy categories: social, memory, cognitive and metacognitive strategies.   The social strategies were included in both groups because they can be used for both purposes.   Among these five strategy categories, four categories (i.e. social, memory, cognitive, and metacognitive strategies) came from Oxford's (1990) classification system because it seemed best able to capture the wide variety of vocabulary learning strategies identified.   And Schmitt created a new category labeled as determination strategies in that Oxford's system had no category which could adequately account for strategies used by learners for discovering a new word's meaning without asking for other people's help. In addition, since it is often unclear whether some strategies should be classified as

memory or cognitive strategies, Schmitt clarified the distinction between the two categories of strategies by using Purpura's (1994) classification which divides storing and memory strategies into six areas: (a) repeating, (b) using mechanical means, (c) associating, (d) linking with prior knowledge, (e) using imagery, and (f) summarizing. Schmitt considered strategies most similar to (a) and (b) as cognitive strategies since they are less obviously linked to mental manipulation; and those most similar to (c), (d), and (e) as memory strategies since they are somewhat closer to traditional mnemonic techniques which either organize mental information together or transform it in a way which makes it more memorable.

More recently, Nation (2001, p.218) developed a taxonomy which "tries to separate aspects of vocabulary knowledge (what is involved in knowing a word) from sources of vocabulary knowledge, and learning processes." There are three general classes of strategies distinguished in this classification scheme, as shown in Table 2.2. The first major category is "planning for vocabulary learning" which involves deciding on where to focus attention, how to focus the attention, and how often to give attention to them. The strategies in this category include choosing words, choosing the aspects of word knowledge, choosing strategies, and planning repetition. The second major category refers to "sources of vocabulary knowledge" which involves finding information about unfamiliar words. This category contains the strategies, such as analyzing the word, using context, consulting a reference source in L1 or L2, and using parallels in L1 and L2. The third major category concerns "learning processes" which involves ways of establishing vocabulary knowledge and making it available for use. This category consists of three types of strategies: noticing, retrieving, and generating.

Like the classification schemes of language learning strategies, the taxonomies of vocabulary learning strategies were developed in a relatively inconsistent way and

still need further standardization.   After comparing the above classification schemes, the present study chooses Schmitt's taxonomy as the main material for gathering information about Taiwanese JHS learners' use of vocabulary learning strategies. The reasons are explained as follows.   First, Schmitt's taxonomy not only contains an extensive list of vocabulary learning strategies but also is organized according to an established system of language learning strategies, i.e. Oxford's classification system of LLS.   Although Gu and Johnson's questionnaire included more comprehensive strategy items, i.e. 91 items, it might cost the participants too much time and energy to fill out the questionnaire.   According to Wang (1994), including too many items in a questionnaire can also be considered as inappropriate.   Second, Schmitt's taxonomy has been used to study Japanese learners of different ages, i.e. junior and senior high school students, university students and company employees.   It has been proved to be applicable to the sample of the present study, i.e. junior high school students. Most important of all, most studies in Taiwan have adopted Schmitt's taxonomy to explore learners' use of vocabulary learning strategies.   The use of Schmitt's classification allows comparison across the studies in Taiwan, making the results have greater explanatory power.

2.2.3   Schmitt's Taxonomy of Vocabulary Learning Strategies

Since Schmitt's classification system is chosen as the main material for data collection in the present study, this section is going to introduce this taxonomy in detail. As mentioned above, Schmitt's taxonomy consists of 58 individual strategies which are divided into two major groups: Discovery and Consolidation strategies and are subdivided into five strategy categories: Determination, Social, Cognitive, Memory, and Metacognitive strategies.   Table 2.3 displays the complete version of Schmitt's taxonomy of vocabulary learning strategies.

Table 2.3 Schmitt's Taxonomy of Vocabulary Learning Strategies (1997, P. 207-208)

Strategy Categories	Individual Strategies
Strategies for the discovery of a new word's meaning	
Determination Strategies	Analyse part of speech
DET	Analyse affixes and roots
DET	Check for L1 cognate
DET	Analyse any available pictures and gestures
DET	Guess from textual context
DET	Bilingual dictionary
DET	Monolingual dictionary
DET	Word lists
DET	Flash cards
Social Strategies	Ask teacher for an L1 translation
SOC	Ask teacher for paraphrase or synonym of new word
SOC	Ask teacher for a sentence including the new word
SOC	Ask classmates for meaning
SOC	Discover new meaning through group work activity
Strategies for consolidating a word once it has been encountered	
Social Strategies	Study and practise meaning in a group
SOC	Teacher checks students' flash cards or word lists for accuracy
SOC	Interact with native-speakers
Memory Strategies	Study word with a pictorial representation of its meaning
MEM	Image word's meaning
MEM	Connect word to a personal experience
MEM	Associate the word with its coordinates
MEM	Connect the words to its synonyms and antonyms
MEM	Use semantic map
MEM	Use 'scales' for gradable adjectives
MEM	Peg Method
MEM	Loci Method
MEM	Group words together to study them
MEM	Group words together spatially on a page
MEM	Use new word in sentences
MEM	Group words together within a storyline
MEM	Study the spelling of a word
MEM	Study the sound of a word

Table 2.3 Schmitt's Taxonomy of Vocabulary Learning Strategies (Continued)

Strategy Categories	Individual Strategies
Strategies for consolidating a word once it has been encountered	
Memory strategies	Say new word aloud when studying
MEM	Image word form
MEM	Underline initial letter of the word
MEM	Configuration
MEM	Use Keyword Method
MEM	Affixes and roots (remembering)
MEM	Part of speeches (remembering)
MEM	Paraphrase the word's meaning
MEM	Use cognates in study
MEM	Learn the words of an idiom together
MEM	Use physical action when learning a word
MEM	Use semantic feature grids
Cognitive Strategies	Verbal repetition
COG	Written repetition
COG	Word lists
COG	Flash cards
COG	Take notes in class
COG	Use the vocabulary section in your textbook
COG	Listen to the tape of word lists
COG	Put English labels on physical objects
COG	Keep a vocabulary notebook
Metacognitive Strategies	Use English-language media (songs, movies, newscasts, etc.)
MET	Testing oneself with word lists
MET	Use spaced word practice
MET	Skip or pass new word
MET	Continue to study word over time

2.2.3.1 Discovery Strategies

When encountering a word for the first time, learners can use either

determination or social strategies to figure out a new word's meaning.   According to

Schmitt, determination strategies facilitate gaining knowledge of a new word through

guessing from any available information, such as part of speech, affixes and roots, L1

cognates[6], and textual context.　Another way of initially finding a word's meaning on one's own is consulting reference materials, such as bilingual dictionaries, monolingual dictionaries, word lists, and flash cards.

　　Social strategies involve discovering a new word's meaning by asking someone else who knows, such as teachers or classmates[7].　Schmitt specifies that teachers can be asked to provide a variety of helpful information, such as L1 translations, synonyms, paraphrases of the definitions, and a sentence including the new word.　In addition, learners can discover unknown words' meanings through group work.

2.2.3.2 Consolidation Strategies

　　Once learners have been introduced to a new word, they make some effort to consolidate or remember the word by using social, memory, cognitive, and metacognitive strategies.　As for social strategies, Schmitt shows that learners can study or practice vocabulary by interacting with others, such as classmates or native speakers.　Besides, they can ask teachers to check their work for accuracy, such as flash cards or word lists.

　　Memory strategies which involve relating new words to existing knowledge comprise the largest number of strategies in Schmitt's taxonomy.　Schmitt reports that learners can memorize words through the following techniques.　First, they can use pictures or create their own mental images by means of personal experiences or the Keyword Method[8].　Second, they can associate new words with related words that they have already knows.　For example, new words can be connected to coordinates, synonyms or antonyms, gradable adjectives.　Or students can use

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[6] Cognates are words in different languages which have descended from a common parent word, such as *Mutter* in German and *mother* in English (Schmitt, 1997, p. 209).
[7] Schmitt points out that classmates can be also asked to provide help in various ways, but to condense the taxonomy, only the general item "Ask classmates for meaning" is listed.
[8] The Keyword Methods entails a learner think of a L1 word that sounds similar to the new L2 word, e.g. the Chinese phrases "踢球" for the English word "teacher" sounds.　Then a mental image combining the meanings of both words is created, such as a teacher is kicking a ball.

semantic maps or feature grids to study words.   Third, they can also link words together that have no sense relationships through Peg Method[9] or Loci Method[10]. Fourth, they can group words together by color, size, function, likes/dislikes, or any other feature that makes sense.   Fifth, they can paraphrase a word's meaning, use multi-word chunks (e.g. phrases or idioms), or put the words in a meaningful context (e.g. sentences or storylines).   Fifth, they can explicitly study a word's spelling or pronunciation.   Sixth, they can study the grammatical or morphological aspect of a word.   Finally, they can use cognates or physical actions to aid recall.

According to Schmitt (1997, p.215), "cognitive strategies in this taxonomy are similar to memory strategies, but are not focused so specially on manipulative mental processing; they include repetition and using mechanical means to study vocabulary." Repetition includes saying or writing a word over and over again, which are very common strategies in many parts of the world.   Mechanical means involve taking notes in class or making use of "study aids", such as word lists, flash cards, vocabulary sections in textbooks, labeling physical objects, tapes of word lists, vocabulary notebooks, etc.

Schmitt (1997, p.216) states that "metacognitive strategies are generally broad strategies, concerned with more efficient learning."   Learners use them to control and evaluate their own learning, by having an overview of the learning process in general.   To efficiently acquire an L2, students can seek chances to maximize exposure by using the L2 media.   They also can know when to pay attention to a word and when to skip or pass one.   In addition, they can organize their own

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[9] The Peg Method allows unrelated items, such as words in a word list, to be recalled by linking them with a set of memorized "pegs" or "hooks."   Learners first need to memorize a rhyme like "one is a bun, two is a shoe, three is a tree, etc."   Then they give each of the target words a number, for example "chair" is number one.   They create an image visualizing a bun (peg word) resting on a chair.
[10] To use the Loci Method, learners imagine a familiar location, such as a room. Then they mentally place the first item to be remembered in the first location, the second item in the second location, and so forth. To recall the items, they take an imaginary walk along the landmarks in the room and retrieve the items that were "put" there.

vocabulary learning through spaced word practice[11].   They can test themselves to see if progress is being made.   Most important of all, they can make conscious decision to persevere in their vocabulary learning by continuing study word over time.

2.2.3.3 Survey on Japanese Students

By using this taxonomy of vocabulary learning strategies, Schmitt undertook a survey on 600 Japanese junior and senior high school students, university students, and company employees.   A number of interesting findings arose in Schmitt's research.   First, the results showed that using bilingual dictionary was the most popular strategy.   And other common strategies were verbal repetition, written repletion, and studying the spelling. In general, Japanese learners emphasized more on meaning and form (spelling and pronunciation) and still applied "shallow" strategies, such as repetition.   Second, the pattern of strategy use did change as the participants became older.   Some learning strategies were more beneficial at certain ages than others, and that learners naturally matured into using different strategies.   For example, older people tended to apply strategies required deeper mental processing such as the Keyword Method, connecting the target word to personal experience, and word association.   In conclusion, Schmitt's research was of great importance in that he proposed a comprehensive taxonomy of vocabulary learning strategies, indicated the change of strategy use over age, and suggested to take cognitive maturity into account when strategies were recommended.

Based on Schmitt's taxonomy, Kudo (1990) also conducted a survey on Japanese senior high school students' use of vocabulary learning strategies.   The study discovered several interesting findings.   First, cognitive strategies were used most commonly, while social strategies were used least commonly.   Second, the cognitively shallower strategies, such as rote-learning and take notes, were employed

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[11] The "principle of expanding rehearsal" suggests that learners should review new material soon after the initial meeting and then gradually increasing intervals (Baddeley, 1990, p. 156-8).

more often than the deeper cognitive processing strategies, such as semantic mapping or Keyword method.   He speculated that the latter strategies might be more cognitive demanding; thus, they were too difficult for most senior high school students to employ.   Third, bilingual dictionaries were "usually" used; electronic dictionaries were "occasionally" used; and monolingual dictionaries were "seldom" used.   Finally, metacognitive strategies were not actively used.   In particular, the participants indicated that they did not use media, such as the radio, the Internet, or newspapers.

2.2.4   Studies on the Relationship between Vocabulary Learning Strategies and
         Language Performance

Like research on language learning strategies, a number of studies in the field of vocabulary learning strategies make attempts at exploring how learners' approaches to lexical learning are related to their general L2 proficiency or vocabulary knowledge.

2.2.4.1 "Good" and "Poor" Learners' Vocabulary Learning Strategies

Ahmed (1989) undertook the pioneering work to investigate how differently the "good" and "poor" learners approach their lexical learning.   The data were gathered from 300 Sudanese learners of English through observation on think aloud tasks and a structured interview.   Ahmed used a cluster analysis[12] technique to isolate five groups of learners typified by the pattern of their strategy use.   Three groups were classified as "good" learners and two as "poor (underachieving)" learners.   The results indicated that the good learners were more conscious of the semantic relationships between new and learned L2 words, while the poor learners viewed each word as a discrete item unrelated to previously learned words.   Besides, the good learners were more aware of what they could learn about new words, paid more attention to collocation and spelling, and were more conscious of contextual learning. By contrast, the "poor" learners, characterized by their apparent passiveness in

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[12] A statistical technique is used for finding relatively homogeneous subgroups in a population.

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learning, refused to use the dictionary and almost always ignored unknown words. Generally, good learners used a wider range of strategies than poor learners and tended to manage their strategy use more actively.

2.2.4.2 The Relationship with Vocabulary Leaning Achievement

In order to obtain a more complete picture of how students tackle the task of vocabulary learning, Sanaoui (1995) conducted a series of intensive longitudinal studies which involved an exploratory inquiry with 50 adult ESL learners, 4 case studies of ESL learners, and 8 case studies of FSL learners. The research identified two distinct approaches to vocabulary learning, a "structured" and an "unstructured" approach, which were conceptualized as two extremes of a continuum on how much vocabulary learning is organized by individual learners. Sanaoui saw her subjects fitting into two major groups: those who clearly demonstrated strong tendencies towards a "structured" approach at one end of the continuum and those showed strong tendencies towards an "unstructured" approach at the other end of the continuum. The characteristics of these two distinctive approaches were summarized in Table 2.4.

Table 2.4 Features of structured and unstructured approaches to vocabulary learning

	Structured Approach ⬅➡	Unstructured Approach
Opportunities for learning vocabulary	self-created independent study	reliance on course minimal independent study
Range of self-initiated activities	extensive	restricted
Records of lexical items	extensive (tend to be systematic)	minimal (tend to be ad hoc)
Review of lexical items	extensive	little or no review
Practice of lexical items	self-created opportunities in and outside classroom	reliance on course

(Source: Sanaoui, 1995, p. 24)

As shown in Table 6, learners who employed a "structured" approach systematically planned their vocabulary learning and set criteria for the selection of words. They

took control of the learning rather than rely on what the language course provided. They take their initiatives in creating opportunities for vocabulary learning by listening to the radio, watching videotapes, speaking with friends and so on.   They kept systematic records of their vocabulary learning by using notebooks and lists. They reviewed their records several times a week and took their records with them for review.   And they deliberately sought out opportunities to practice using the items they had learned.   On the other hand, learners who followed an "unstructured" approach relied primarily on classroom instruction and did not know what words to focus on.   They kept few records of vocabulary items and often did it randomly, such as scribbling on the back of handouts or on various pieces of paper.   And the records were seldom reviewed and practiced.

Additionally, due to the concern for the potential effects of these two distinct approaches on students' actual learning of vocabulary, Sanaoui (1992) conducted a questionnaire survey on 74 FSL students.   When students' scores on a vocabulary achievement test were compared with the approaches they used, the results indicated that learners who adopted a structured approach were shown to be more successful in retaining vocabulary taught in their classes than those who employed an unstructured approach.   It was therefore concluded that learners' approaches to vocabulary study were an important factor in predicting the outcome of their vocabulary learning and that a structured approach was related to enhanced lexical acquisition.   Although Sanaoui's study provided useful insights into learners' approaches to vocabulary learning, it appeared that the simple structured/ unstructured categorization was inadequate to account for the actual diversity of learners' strategy patterns (Kojic-Sabo & Lightbown, 1999).   For example, in Sanaoui's study, she could not account for those students who showed characteristics of both approaches and thus eliminated them from analysis.

Lawson & Hogben (1996) observed what strategies were being used by 15 university students in Australia while they attempted to learn twelve new Italian words. Through a think-aloud procedure, they found that the most frequently used strategies involved some form of repetition of the new words and their meanings, while strategies involving analysis of word features (e.g., spelling, affixes, and word classes) and elaborative acquisition procedures (e.g., use of context, paraphrase, mnemonics, etc.) were used infrequently. In order to examine the differences between more and less successful students' strategy use, the subjects were classified into two groups, the top-scoring group and the low-scoring group, according to their scores on a word meaning recall test. The results showed that although both groups made considerable use of repetition strategies, the students in the high-scoring group used a greater range of strategies on average and used these strategies much more frequently. Besides, the top-scoring group tended to be consistent in whatever strategies they employed, while the bottom-scoring group exhibited more limited and inconsistent strategy use. Accordingly, the researchers suggested that "one element of success in learning foreign language vocabulary is the consistent and skillful use of individually congenial strategies rather than the employment of some particular fixed set of strategies" (p.127).

2.2.4.3 The Relationship with Vocabulary Size and General English Proficiency

Gu and Johnson (1996) conducted a relatively large-scale questionnaire survey to investigate the vocabulary learning strategies used by 850 university EFL students in China and to explore their relationship with language learning outcomes. The results first showed that the participants employed a wide range of strategies in lexical learning and they generally did not dwell on memorization. On the contrary, they used more meaning-oriented strategies than rote strategies in learning vocabulary.

Second, it was demonstrated that some vocabulary strategies had a positive relationship with language learning outcomes when learners' reported strategy use were compared with their scores on two tests, a vocabulary size test and a general English proficiency test.   The results indicated that self-initiation and selective attention, the two metacognitive strategies, were positively and significantly correlated with both vocabulary size and general proficiency.   This suggested that learners would be more successful in learning L2 if they could take responsibility of their learning by relating learning to personal needs and goals and if they could make their own decisions about what vocabulary was important for them.   At the cognitive level, contextual guessing, skillful use of dictionaries for learning proposes (as opposed to looking up for comprehension only), note-taking, paying attention to word formation, contextual encoding, and intentional activation of new words all positively correlated with the two test scores.   However, visual repetition (e.g., repeating a new word by writing it again and again) correlated negatively with both vocabulary size and general proficiency.

Third, when performing a cluster analysis to classify learners by their strategy profiles and learning outcomes, the researchers identified five types of students' approaches to vocabulary learning: Readers (the most successful group), Active strategy users, Non-encoders, Encoders, and Passive strategy users (the least successful group).   The successful learners were those who used extensive reading as means to learn vocabulary (Readers) and those who actively employ a wide range of strategies (Active strategy users); on the contrary, students of lower proficiency strongly believed in memorization and placed the greatest emphasis on visual repetition of word lists (Passive strategy users).   This provided evidence for that it was their choice of strategy combination rather than individual strategies that resulted in learning difference.

Fan (1999) conducted a research on university students in Hong Kong, aiming at exploring the frequency of use, the perceived usefulness and the actual usefulness of vocabulary strategies.   First, the results showed that the overall mean for the frequency of use was 3.06 (3=*sometimes*, 4=*often*) and the overall mean for the perceived usefulness was 3.40 (3=*quite useful*, 4=*very useful*).   This revealed that the students only sometimes used vocabulary strategies, although they considered it is quite useful to employing these strategies.   Second, the Hong Kong learners did not use repetition strategies more often than other kinds of strategies, nor did they consider repetition particularly useful in learning L2 vocabulary.   Third, there was a significant relationship between vocabulary strategy use and vocabulary size.   The students were classified into three scoring groups, i.e. high, middle, low, according to their scores on a vocabulary size test.   The most proficient students in English vocabulary used various kinds of strategies significantly more often than the less proficient students.   In particular, they used more sources, guessing, dictionary, and known words strategies than the less proficient students.

2.2.4.4 The Relationship with Academic Vocabulary Knowledge and General English
    Proficiency

Kojic-Sabo & Lightbown (1999) surveyed 47 ESL and 43 EFL adult learners' approaches to vocabulary learning by use of a questionnaire and investigated their relationship to success.   The questionnaire adapted from Sanaoui's (1992) work consisted of the following five aspects: (a) time, (b) learner independence, (c) vocabulary notes, (d) review, and (e) dictionary use.   Through a cluster analysis, eight different profiles of students' approaches to lexical learning were identified. Then students' performance on two tests, a test of academic vocabulary knowledge and a test general English proficiency, were compared among the eight clusters to determine the relationship between strategy use and success in language learning.

The results revealed that there was a strong relationship between strategy use and learning outcomes.　First, the amount of strategy use was strongly associated with levels of success in language learning.　More frequent and elaborate strategy use was associated with higher levels of achievement, whereas lack of self-reported effort on the students' part was linked to poor performance.　Second, the two measures, time and learner independence, not only are closely associated with the two most successful groups, but also showed strongest correlation with success in vocabulary learning and higher overall English proficiency.　The researchers therefore suggested that "learner initiative and independence, along with the amount of extracurricular time spent on language (vocabulary) learning, are seen as two crucial factors related to higher level of achievement" (p.190).

2.2.4.5 Studies on EFL Learners in Taiwan

With regard to the studies in Taiwan, Chen (1998) followed Schmitt's survey procedures to investigate the vocabulary learning strategies of 174 Taiwanese college students and 81 senior high school students and then compared the results with the Japanese learners' strategies identified by Schmitt (1997).　Some similarities were found between Japanese and Taiwanese EFL learners' use of vocabulary learning strategies.　In terms of the discovery strategies, both the Chinese and Japanese learners reported that bilingual dictionary was the most favorite way of discovering a new word's meaning.　In addition, guessing from textual context was also found to be very popular among the two populations.　As for the consolidation strategies, both groups believed that some relatively shallow strategies, i.e. written and verbal repetitions, to be the most helpful learning strategies.　Moreover, they both paid close attention to forms and form-sound matching, such as saying a new word aloud, studying the spelling of a word, and studying the sound of a word.　On the other hand, there were some differences found between Japanese and Taiwanese EFL

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learners' use of vocabulary learning strategies. For example, the Japanese learners seemed to believe monolingual dictionary to be very helpful, while the Chinese learners seemed less convinced that monolingual dictionary is indeed important. Besides, the Chinese students showed preference for a particular social strategies (i.e., interact with native speakers), but the Japanese learners did not.

Liao (2004) also adopted Schmitt's taxonomy to survey the vocabulary learning strategies used by 625 Taiwanese college students. Among the five strategy categories, the results showed that the participants used determination strategies most frequently, while metacognitive and social strategies were the two least frequently used categories. As for the individual strategies, the students reported using electronic dictionaries most often. The strategies coming next involved written or verbal repetition, bilingual dictionaries, guessing from context, studying the sound or spelling, using the textbook's vocabulary section, learning an idiom together and asking classmates. These frequently used strategies were similar to those found in Chen's survey. Both Chen's and Liao's studies provided useful insights into Taiwanese EFL learners' use of vocabulary learning strategies; however, they did not probe into its connection with language performance.

Wang (2004) not only investigated the frequencies of use of different vocabulary learning strategies, but also explored the relationship between strategy use and vocabulary size. She used the two instruments, Schmitt's vocabulary learning strategies questionnaire and Nation's vocabulary levels test (1990), to collect data from 271 senior high school students. The results first showed that cognitive strategies were the most common category, whereas metacognitive and social strategies the least common categories. Second, the senior high school students favored using strategies related to "rote repetition" and they paid much attention to "the form of a word". This finding again lent support to the previous research of

Chen (1998) and Liao (2004).   Third, students' strategy use was significantly correlated with their vocabulary size.   That is to say, the students who scored higher on VLT tended to used vocabulary learning strategies more frequently.   Moreover, it appeared that good learners tended to learn words in context (e.g. guessing from context, using new words in sentences, and reading English novels or magazines) while poor learners tended to learn words in isolation (e.g. written repetition, word lists, and flash cards).

2.2.4.6 Summary

Three general conclusions can be drawn from the above studies concerning the relationship between vocabulary learning strategies and language performance.   First, the use of vocabulary learning strategies has been proved to have a strong relationship with students' vocabulary knowledge as well as their general L2 proficiency.   Second, from the perspective of quantity, more successful L2 learners not only employ a wider range of vocabulary strategies but also use them more frequently.   Last but not the least, from the perspective of quality, successful vocabulary learners are independent and active learners who are able to flexibly utilize a variety of strategies, systematically organize their own learning, skillfully use dictionaries, pay attention to context, and persistently practice target words.