ABSTRACT

Title: LANGUAGE LEARNING STRATEGIES PROFILES OF EFL ELEMENTARY SCHOOL STUDENTS IN TAIWAN

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Research in the last three decades on second and foreign language learning strategies has witnessed prolific and vigorous growth. Numerous studies around the world have contributed to both theory and teaching by showing fruitful results supporting the significant role of language learning strategies for effective and successful language learning. Factors related to language learning strategy use range from cultures and educational contexts to individual learner variables, such as gender, motivation, learning styles, years of learning, proficiency, and achievement. The majority of investigations have focused on young adult and adult learners, with fewer studies exploring learning strategy use by children at the elementary school level.

This current study investigating Taiwanese elementary school students' strategy use bears significance in the following four areas. (a) It has a large-size sample of 1,191 participants. (b) It includes four major geographical areas of Taiwan: north, central, south, and east. (c) It explores eight independent variables: geographical area, gender, father education, mother education, liking of learning English, self-rated English proficiency, self-choice of studying English at a private institute, and prior English learning. (d) It employs three research instruments for data collection: a questionnaire, a vocabulary

performance task, and student interviews.

By listening to the voice of Taiwanese children through the questionnaire, the performance task, and the interviews, this dissertation has provided new and more comprehensive information about young learners' strategy use. The results provide implications for both theory and pedagogy. For example, to facilitate children's English language learning, teachers need to further understand the importance of vocabulary learning. Woven into regular language instruction, teachers should also start teaching students how to use both vocabulary learning strategies and general learning strategies. The goal is to help students develop strategies for effective and enjoyable learning so that they will be better equipped to cope with the challenges of language learning.

LANGUAGE LEARNING STRATEGIES PROFILES OF EFL ELEMENTARY SCHOOL STUDENTS IN TAIWAN

By

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DEDICATION

This dissertation is dedicated to Gu-Yang Ju, my father-in-law, Sai-Hwa Chen, my deceased mother-in-law, Su Lan, my father, and Mei-Hsio Chow, my mother. I appreciate their unselfish and everlasting love, patience, and support.

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CHAPTER 1

INTRODUCTION

I have been a passionate and enthusiastic learner of English ever since I first started learning English in junior high school. I paid specific attention to the teacher's pronunciation, repeatedly sounded words out loud, took notes in class, copied sentence examples from the dictionary, spent extra time on the grammar exercises, and even tried to speak English to any foreigners I ran into on the streets. While reflecting on my own language learning history as an assignment for one of the graduate courses taken in my doctoral studies, I vividly recalled an incident in senior high school when I passed my own bus stop for the opportunity of conversing with an American woman on my way home one night. Back in the 1980's, there were not many American souls wondering around on the streets of Taipei.

My four years of university life marked a very significant period for my English language learning experience. There was a high percentage (more than 80%) of English speaking faculty in the English department where I was studying as a English major. All of a sudden, I found myself in an authentic environment where I was able to use what I had been studying for the past six years (in junior and senior high) for real and meaningful communication with most of my American teachers and professors. With such access to the English language, I found myself developing what Cummins (1980) would term as *Basic Interpersonal Communication Skills (BICS)*, i.e., social language for interaction, such as ordinary greetings and leave-takings; and *Cognitive Academic Language Proficiency (CALP)*, i.e., the vocabulary, forms, and pragmatics necessary for succeeding in an academic setting. Although the traditional Grammar Translation Method

still dominated language teaching and learning in Taiwan in the 1980's, I was still able to make the best use of what was available around me for further development in English learning. I faithfully filled in all the blanks for the language laboratory exercises while listening to short stories by Edgar Allen Poe. I volunteered English-language answers whenever I could in class. I took strong initiative in speaking English with my teachers. When I was a junior, I initiated the play "Our Town" by the famous American playwright Thornton Wilder in our department. I auditioned and got the part of Chavale in "Fiddler on the Roof" for our senior graduation play. I simply enjoyed all the wonderful opportunities for learning and using English. It was the best part of my whole life at the time.

I certainly was and still am crazy about the language. My learning never stops as I try to grasp any opportunity to learn authentic, real-world English. Once, years after I became an English teacher myself, I felt very excited because of what I had learned from an English radio program on a Friday evening when I was driving home from the university where I was teaching. It was a program from the International Community Radio Taipei (ICRT), which was for decades the only English-language radio station available for Taiwanese students learning English. The radio announcer said something about practicing safe sex, and at the end she wrapped it up with "Don't forget your rubber!" I had thought I knew what condoms and rubbers were, but until I heard the ICRT program while driving that evening, I did not know that "condom" and "rubber" meant the same thing. Students could not learn about this from the English textbooks!

In a different example from another program on ICRT, the host was talking about a ball game and mentioned a term called "fair-weather fan". I knew what a "fair-weather

friend" was and figured out what a "fair-weather fan" must have meant given the context of the ball game. I was just thrilled about being able to figure it out the new usage by myself.

While I enjoyed all the positive experiences in learning and using English, I also remembered my classmates in junior and senior high school and at the university, who did not do so well in English. They could not pronounce the words correctly. They had a hard time understanding the grammar rules explained by the teacher. They felt anxiety and pressure in studying English. They scored poorly on the quizzes and exams. I wondered to myself, "What are the reasons for the discrepancy between me and most of my peers in our English learning experiences in school?"

When I was a student in school, I did not know the terms "learning strategies" or "learning strategy instruction," although I certainly used strategies for learning English. As I reflect on the instructional practices of all of my English teachers, I cannot recall any explicit and systematic instruction of specific strategies or skills for learning English during my ten years of studying English in school. Occasionally the teachers reminded us of some useful techniques when the need arose, but this did not occur in any planned, organized way. The strategies I applied to my own school language learning came from three sources: a few were demonstrated or explained in an ad hoc way by my teachers, others came from classmates, and most were simply self-initiated.

My need to understand the characteristics that made me different from my peers in language learning became more urgent when I started my career as an English teacher in 1987. Frustration was a constant reality as I witnessed students' infelicity in English learning. I was at a loss myself, not knowing which learning strategies could best help my

students.

Beginning in 1992, I taught English to university students full-time. On a part-time basis from 1987 to 1991, I taught English to adults (four years) and later to children in private English schools (five years). From 1998 until 2001, I was intensively involved as a teacher trainer in teacher training programs for preparing elementary school English teachers. From my experiences, I realized that children need to be taught about how to approach language learning at a young age.

However, it was not until I started my doctoral program here at the University of Maryland that I began to learn about language learning strategies and how they are related to successful language learning. I then began to reflect for the first time on my own learning experience and consider what made me different from the less successful English language learners. I was determined to delve into the issues by focusing my dissertation on the topic of learning strategies, particularly for elementary school learners.

Background of the Study

Language learning strategies are defined as specific methods or techniques used by individual learners to facilitate the comprehension, retention, retrieval and application of information for language learning and acquisition (Oxford, 1990). In the past two decades, dozens of studies have contributed to our understanding of strategies employed by Taiwanese EFL students at the level of adults, college/university students, and secondary students. However, only four prior studies (Hsu & Huang, 2004; Kung, 2003; Lin, 2001; Su, 2003) focused on Taiwanese elementary school EFL students' language learning strategies. Hsu and Huang (2003) examined 163 sixth graders' language learning strategy use and its

relationships with gender and personality traits. Kung (2003) investigated 172 EFL elementary school students' vocabulary learning strategies and the link between those strategies and overall English proficiency. Lin's (2001) case study explored vocabulary learning strategies applied by seven elementary school students. Su (2003) focused on language learning strategies used by 932 fifth and sixth grade students and their language learning experience. These and other studies are discussed in Chapter Two.

My dissertation study is so far the largest-scale investigation of young children's language learning strategies in Taiwan to date. This study is intended to provide a much greater insight into the instructional needs of young Taiwanese language learners by exploring factors affecting these young learners' strategy use and the role of vocabulary learning in their English learning experience.

With the official implementation of English education starting at the elementary school level in the Taiwan school system in 2001[1], English language education has become a heated topic in Taiwan, not just in the field of education but also throughout society. Many commentators talk about the pressure parents are under to ensure that their child gets a "proper" English education. Typically parents react to this pressure by mandating outside-of-school English education for their children, regardless of whether any given child enjoys it. One study by the Child Welfare League in Taiwan puts the number of children who study English outside school at 80.6% in Taipei, 71.5% in Taichung, and 77.3% in Kaohsiung (M. Butler, personal communication, June 11, 2004). These figures indicate the degree to which parents in the cities (and many children) seek outside help with their English.

As the pressure to learn English mounts, the language is still treated as a difficult puzzle that needs to be mastered rather than as a tool for communication. While the pedagogical

[1] Prior to 2001, English was officially introduced in Taiwan in the middle school grades.

pendulum in Taiwan has officially shifted from the traditional Grammar Translation Method to the Communicative Language Teaching Approach, most English language classrooms continue to be places where students are expected to memorize textbooks rather than practice communication. In such classrooms, the teacher is at the center of all that happens, and little room is left for students to become independent or active learners. This situation calls out for what Nunan (1998) refers to as a shift from “teacher-centered practice” to “learner-centered pedagogy.”

It is also crucial to point out the differences in learning between an ESL and an EFL context. In an ESL situation, there is a need to use English in an authentic setting for a communicative purpose. Such environment provides and promotes opportunities for language use and therefore generates use of language learning strategies. In other words, an ESL context fits what Krashen would term as a context for language acquisition. In contrast, an EFL setting is where English is learned in the classroom for a limited period of time each week and there is no immediate purpose for using English for communicative functions. Such context, like in Taiwan, for language learning does not encourage or generate language learning strategy use. It is therefore very meaningful to investigate learning strategy use by EFL elementary school students and more of this will be reviewed in chapter 2.

In such a situation as this, much can be learned from carefully studying the strategy of Taiwanese children learning English. Armed with such studies, one can look at ways of showing learners how to take control of and be more responsible for their own learning. Through such studies, it is hoped that language learning strategies will play a key role in creating more efficient and successful learning experiences.

Statement of the Problem

Recent research on language learning strategies has witnessed prolific and vigorous growth in the past few decades in both second and foreign language contexts. Numerous studies around the globe have heightened the world's awareness of language learning strategy use and of factors affecting learners' strategy choice. Empirical evidence has also lent strong support to the significant relationships between (a) language learners' strategy use and (b) a variety of factors such as proficiency, achievement, motivation, gender, learning styles, learning environment and language tasks (Chamot & El-Dinary, 1999; Chamot & Kupper, 1989; Dreyer & Oxford, 1996; Green & Oxford, 1995, Park, 1997; Watanabe, 1990).

While most studies have focused on adolescent and adult learners, researchers have also taken a new interest in children in elementary schools (Chamot & El-Dinary, 1999; Gunning, 1997; Kiely, 2002; Lan & Oxford, 2003). Like their older counterparts, young children also face the challenges of learning a second or foreign language. Chamot and El-Dinary (1999) suggested that children not only use an array of strategies to cope with language learning, but are also capable of articulating the strategies used. However, not many studies have focused on elementary school students' English-learning strategy use in an EFL learning environment, i.e., a location in which English is not the major language of everyday communication.

As noted earlier, only a few studies have focused on the strategies that young Taiwanese children use to learn English. These studies, while commendable, leave the following gaps:

- lack of large-scaled investigation
- finite geographical area for study
- lack of task-based instrument for data collection
- limited scope of independent variables affecting children's strategy use

- lack of a holistic methodological approach

The current study was needed to fill in the knowledge gap that exists regarding the strategies of Taiwanese elementary school children learning English. It does so by . . .

- including a large-scale sample of 1,191 elementary school students
- covering four major geographical areas in Taiwan (North, Central, South and East)
- employing a vocabulary performance task
- investigating eight independent variables: geographical area, gender, father's education, mother's education, liking of leaning English, self-rated English proficiency, self-choice of studying English at a private institute, and prior English learning
- adopting a mixed-method design that applies both quantitative (a questionnaire) and qualitative (vocabulary performance task and additional interview) methods.

Purpose of the Study

The purpose of this study is to investigate the relationships between Taiwanese elementary school students' language learning strategy use and various factors that might correlate with or directly influence their strategy use. The variables focused on here include the geographic area, gender, parents' educational background, liking of English, prior English learning, self-rated English proficiency and self-choice of studying in a private English institute. As a by-product, the study is likely to raise the strategic awareness of both the teachers and the learners in Taiwan. According to the guidelines of the New Nine-Year Curriculum of Junior High and Elementary School Education published by the Ministry of Education in Taiwan (2000), there are three objectives for

English education: (a) Develop and cultivate students' basic communicative competency, (b) Develop and cultivate students' interest and strategies (skills) in learning English, and (c) Promote students' understanding of native and foreign cultures. Since strategy use has been emphasized explicitly here as one of the national curriculum objectives for English education, it heightens the importance and significance of this study. Through the findings of this study, I hope to provide empirical evidence to highlight the relationships between students' language learning strategy use and the targeted factors and further provide implications for pedagogical practice.

Research Questions

The following research questions guide the current study:

Question 1: What does the Background Questionnaire tell us about students' geographic area, gender, prior English learning experience, self-choice of English learning, proficiency self-rating, degree of liking English, and their parents' educational background?

Question 2: For the entire group of students, what is the total strategy-use mean (i.e., the overall mean frequency on the entire Taiwanese Children's SILL)?

Question 3: For the entire group of students, what are the strategy-use means for each of the strategy categories?

Question 4: How do these overall EFL results compare to those found in other learning strategy studies involving elementary school children?

Question 5: For the entire group of students, what are the five most and the five least used strategies?

Question 6: Are there significant relationships among the following variables: strategy use (total us and use by strategy category), geographic area, gender, parents' educational background, prior English learning experience, self-choice of English learning, proficiency self-rating and degree of liking English?

Question 7: What additional information do 12 students' vocabulary performance task and strategy interviews provide beyond that offered by the strategy questionnaire given to the whole sample?

Significance of the Study

With the Taiwanese English educational issues mentioned above in the Background section, it is also important to realize that most Taiwanese educational research is focused on teaching methodologies, class size, classroom management, alternative assessment, phonics, and storytelling (Dai, 1999). The current study will point out a new direction, that of language learning strategies. Many research findings indicate the value and necessity of strategies for language learning (Chamot & O'Malley, 1996; Oxford, 1990; Oxford & Leaver, 1996), but little work has been done on elementary school EFL students' language learning strategies. As noted under the Problem Statement, this study is intended to close a major research gap by presenting the language learning strategy profiles of Taiwanese elementary school students. By continuing research along existing

lines but expanding it to young learners in an EFL context, the study is designed to contribute to the existing body of literature.

Furthermore, the study will have many implications for strategy instruction for elementary school teachers in EFL situations in Taiwan and beyond. Several strategy instruction models have also been created to provide step-by-step strategy training for teachers to incorporate in their language classrooms (Chamot & O'Malley, 1994; Dickinson, 1987; Kidd & Marquardson, 1996; Oxford, 1990; Palincsar & Brown, 1984). Strategy instruction should be able to help teachers in Taiwan or in other EFL countries better understand their students' needs, including the necessity of equipping students with the right tools for language learning.

Definitions of Key Terms

ESL – English as a Second Language. According to Richards et al. (1992), ESL refers to "the role of English for immigrant and other minority groups in English-speaking countries who use English at school and at work" (p. 124). In a general educational context, it is a term used to describe learners who speak English as a second language as opposed to the native language they speak at home.

EFL – English as a Foreign Language. In Richards et al. (1992, pp.123-124), EFL refers to "The role of English in countries where it is taught as a subject in schools but not used as medium of instruction in education nor as a language of communication (e.g. government, business, industry) within the country." For example, English is taught in Taiwan as a foreign language.

L1/L2 – L1 stands for a person's first language or mother tongue. L2 stands for the person's second language or the target language someone has learned or wishes to learn.

Language learning strategies – Basically, language learning strategies are steps taken by students to enhance their own language learning. A more detailed explanation of language learning strategies, shown earlier in this chapter, indicated that these strategies are specific methods or techniques consciously used by individual learners to facilitate the comprehension, retention, retrieval and application of information for language learning and acquisition (Oxford, 1990).

Learner autonomy – This is also known as self-directed learning, which refers to the learner's ability to take responsibility for his/her learning. This is one of the expected outcomes when students apply language learning strategies.

SILL – *Strategy Inventory for Language Learning*, a questionnaire designed by Oxford (1990) to investigate learners' frequency of use of many language learning strategies, clustered into six strategy categories (mentioned above).

Strategy - A detailed plan for achieving success in situations such as war, politics, business, industry or sport," and, of course, learning. Thus, planfulness or goal-orientation is an essential part of any definition of "strategy."

Target language – The language being learned, regardless of whether it is a second or foreign language.

TESOL – Teaching (of) English to Speakers of Other Languages.

Bushiban – A term in Chinese for private institutes where students take classes outside of school for different subject learning, including English.

Rationale for the Research Design

It is hoped that the long-lasting debate between quantitative and qualitative research will be reconciled through the methods taken in this current study. I am intended to employ multiple research methods for the purpose of triangulating quantitative and qualitative data sources. By employing a mixed-method design (Creswell, 2003), I expect that data from quantitative methods (using the *Taiwanese Children's SILL*) and qualitative methods (using students' interviews) will be complementary and will therefore generate a more comprehensive picture of the learning strategy profiles of young Taiwanese EFL learners.

Limitations of the Study

This study cannot be generalized beyond young Taiwanese learners of EFL. Great care has been taken in sampling from the major geographic regions of Taiwan and in representing effectively the different educational and socioeconomic groups by means of the choice of schools, but naturally one can never be totally certain that the sample matches the target population (young Taiwanese learners of EFL) on every variable of interest.

Conclusion and Overview of Forthcoming Chapters

In this chapter, I introduced the background for the study, described the problem, indicated the purpose of the study, and listed the research questions that intended to guide the investigation. The significance of the study was also stated, followed by a list of definitions of the key terms that will be used in this study. I also provided a rationale for

choosing a mixed-method design and a statement of limitations.

Chapter 2 is a review of empirical research conducted on language learning strategies around the world. It cites studies done across all age groups but focuses primarily on children's language learning strategies in Taiwan and in other countries, such as the United States, Canada, and Ireland.

Chapter 3 provides a detailed description of the procedures of the two-phased, mixed-method design. I begin by describing the rationale for choosing multiple methods for data collection and then depicts the educational setting for the study, followed by specific instrumentation used for both phases. Data collection and data analysis procedures are also described for each phase. I pay special attention to explaining the reasons for the revisions of the *Taiwanese Children's SILL* (Lan, 2003) and describing in detail the content of this questionnaire, as well as that of the *Background Questionnaire*.

Chapter 4 and Chapter 5 report the results of the quantitative and qualitative data collected in both Phase I and Phase II. Chapter 4 describes the results based on the *Taiwanese Children's SILL,* which also includes a Background Questionnaire. Chapter 5 presents results based on the vocabulary performance task and the student interviews. Chapter 6 discusses major findings, provides implications for theory, pedagogy and recommends directions for future research.

CHAPTER 2

LISTERATURE REVIEW

Introduction

This chapter provides a comprehensive review of the literature on language learning strategies (LLSs) in various contexts, at different age levels, and with a variety of factors related to the use of strategies by language learners. It first defines LLSs, presents theoretical underpinnings from cognitive and social-cognitive psychology, and then describes the roles of learning strategies in second or foreign language contexts. An extensive literature review on children's use of all types of language learning strategies is then presented, followed by a detailed review of research on children' LLSs in Taiwan.

Language Learning Strategies

LLSs have been one of the most researched topics in the field of second and foreign language education for three decades, since Rubin (1975) wrote an article on the subject. Numerous studies have contributed to our understanding of the important roles that LLSs play in the learning and acquisition of a second or foreign language. This section defines LLSs, describes their characteristics, presents several models of classification, and provides empirical evidence for the significant roles LLSs play in facilitating language learning and promoting learner autonomy.

Presentation and Analysis of Definitions

The term "strategy" is defined by Cambridge University Dictionary Online (http://dictionary.cambridge.org/, Retrieved 3/10/05) as: "a detailed plan for achieving success in situations such as war, politics, business, industry or sport," and, of course,

learning. Thus, planfulness or goal-orientation is an essential part of any definition of "strategy." Chapter 1 has already indicated this.

Planfulness as a feature of learning strategies is reflected in various terms used by different researchers. These terms include "goal," "intention," "purpose," "conscious action," "awareness," or "control." For instance, Pressley and McCormick (1995) argue that learning strategies are consciously "controllable" (p. 28) as means for learners to achieve their learning goals. Even if none of the terms above is explicitly used in a given definition of learning strategies, the form of the definition of "learning strategy" is usually something like this: "A learning strategy is 'X [in order] to achieve Y.'" This form naturally implies a goal, purpose, or intention.

Several key definitions of learning strategies have been given by a number of leading figures in the second and foreign language field. For instance, Tarone (1983) defines a learning strategy as "an attempt to develop linguistic and sociolinguistic competence in the target language -- to incorporate these into one's interlanguage competence" (p. 67). (Interlanguage refers to the type of language produced by nonnative speakers in the process of learning a second language or foreign language). As noted earlier, strategies always involve goals or purposes. The goals expressed by Tarone in this definition are to attain various competencies in the language: "develop linguistic and sociolinguistic competence" and "incorporate these into one's interlanguage competence." This definition, focusing on the linguistic arena, does not emphasize learner autonomy, cultural understanding, or other aspects of language learning.

O'Malley and Chamot (1990) define LLSs as "the special thoughts or behaviors that individuals use to help them comprehend, learn, or retain new information" (p. 1). This

definition differs from Tarone's in two ways. First, it tells us that LLSs can be either observable (behaviors)) or unobservable (thoughts). Second, it clearly spells out the goals: strategies are to help students achieve comprehension and learning new information.

Oxford (1990) provides one of the most comprehensive definitions, as follows:

> [Language learning strategies are] operations employed by the learner to aid the acquisition, storage, retrieval, and use of information…; specific actions taken by the learners to make learning easier, faster, more enjoyable, more self-directed, more effective, and more transferable to new situations. (Oxford, 1990, p. 8)

In Oxford's (1990) definition, several student-intended goals are evident. These are related to aspects of learning and use of information, as well as to the changed nature of learning when learning is enhanced by strategies ("easier, faster, . . . more self-directed . . ."). This definition thus expands the list of goals presented by O'Malley and Chamot (1990).

As noted above, there is currently little or no debate about consciousness as an essential feature of learning strategies. However, there comes a time for some learners at which a given strategy is no longer consciously employed or is perhaps no longer needed. After strategies are no longer consciously used, they can no longer be called "strategies." Cohen (1998) and Oxford and Cohen (1992) assert that when strategies become habitual and automatic, i.e., when learners no longer have the awareness of using them but

continue to use these mental or observable behaviors automatically, these "former strategies" should be called "processes." It was Oxford's definition that will be adopted for the current dissertation study.

Characteristics

Based on the above discussion, it is believed that certain characteristics do exist for LLSs. Oxford (1990) describes these characteristics as features which:

1. contribute to the main goal, which, for many learners, is communicative competence.
2. allow learners to become more self-directed and independent learners.

In the communicative approach, achieving communicative competence is the ultimate goal. According to Canale and Swain (1980), four components constitute the construct of communicative competence:

1. Grammatical competence: knowledge of lexical items and of rules of morphology, syntax, sentence-grammar semantics, and phonology
2. Sociolinguistic competence: knowledge of the sociocultural rules of language
3. Discourse competence: knowledge of grammatical competence above the level of a single sentence
4. Strategic competence: knowledge of both verbal and nonverbal strategy use to compensate for communication breakdowns

Oxford, Lavine and Crookall (1989, pp30-32) state four communicative principles that promote and foster language learning strategies:

1. Communicative competence as the main goal: All language learning strategies can be used appropriately to achieve grammatical, sociolinguistic, discourse, and strategic competence.

2. Dealing communicatively with forms and errors: Despite the emphasis on tolerance of errors in the communicative approach, many language learning strategies, such as self-monitoring and self-evaluating, help learners avoid errors. Affective strategies, such as self-encouragement, also help with lowering anxiety and frustration.
3. Four skills: A broad definition of communication should encompass all four language skills, i.e., listening, reading, speaking, and writing Development of communicative ability in these four areas creates the need to apply various language learning strategies.
4. Meaning, context, and authentic language: Authentic language with meaning is a key to real, everyday communication. Compensation, affective and social strategies certainly will be crucial tools for achieving the discourse competence necessary for communicating in authentic, meaningful situations.

Learner autonomy is another important goal for the application of language learning strategies. By definition, "learner autonomy" refers to the learner's willingness and ability to take greater responsibility for his or her own learning, the competence to use strategies for accomplishing a variety of learning tasks, and the flexibility to transfer strategies to novel learning tasks (Hsaio & Oxford, 2002). "Learner autonomy" is also closely related to the concept of self-regulation in cognitive psychology (Hsaio & Oxford, 2002, p. 369). All of the metacognitve strategies emphasize planning, organizing, evaluating, and monitoring to help learners manage and control their own learning and thus achieve greater learner autonomy. In fact, all strategies, when used by the learner to meet a goal, lead to increased autonomy.

Theoretical Systems for Classifying Strategies

Researchers face the issues of classifying and categorizing strategies used by language learners. Bialystok (1978) presents a model that includes four types of strategies: (a) functional practicing, (b) formal practicing, (c) monitoring, and (d) inferencing. Functional practicing refers to strategies used for a functional purpose, such as completing a transaction at a store. Formal practicing and monitoring involve strategies employed for language practice in the classroom, such as verbal drills and noting errors. Inferencing means guessing meaning from contexts. She provides a clear model which emphasizes both learning in a formal setting and that in a real-life situation. It is obvious that she emphasizes the cognitive and metacognitive aspects of learning in her model. However, the social and affective components were not addressed.

Naiman et al. (1978)'s taxonomy contains five broad categories of strategies that they asserted to be used by all good language learners: (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. Their classification scheme was built on data collected from interviews with a group of 34 proficient adult language learners Following Rubin's line of research, their scheme characterizes many important traits and techniques used by these successful language learners. However, there seems to be a lack of theoretical foundation in second language acquisition or cognition according to O'Malley and Chamot (1990)

Rubin's (1981) model of LLS makes a distinction between direct and indirect strategies. Direct strategies, according to Rubin, are those that contribute directly to the

learner's language learning and include: (a) clarification/verification, (b) monitoring, (c) memorization, (d) guessing/inductive reasoning, (e) deductive reasoning, and (f) practice. Indirect strategies are those that benefit language learning indirectly: (a) creating opportunities for practice, and (b) using production tricks such as using circumlocutions, synonyms, or formulaic interaction. Rubin's model was based on her observations of the learners, particularly the good language learners. As a pioneering researcher in the LLSs research, Rubin's model certainly makes contribution to outlining the important strategies used by successful language learners.

Chamot and O'Malley (1990, 1996) proposed a three-part strategy taxonomy based data collection using interviews and think-alouds by ESL young adult learners..

1. Metacognitive strategies: planning (advance organization, organizational planning, selective attention, self-management), monitoring (monitoring comprehension and production), and evaluating (self-assessment)
2. Cognitive strategies: Resourcing (finding and using appropriate resources), grouping, note-taking, elaboration of prior knowledge, summarizing, deduction/induction, imagery, auditory representation and making inferences
3. Social/affective strategies: questioning for clarification, cooperation and self-talk

According to O'Malley and Chamot, their work draws theories in cognitive science, particularly in information processing theory which will be discussed later. It is important to note that their classification was not only theory-based but also has been fairly accepted by both teachers and researchers in the field.

All of these researchers made strenuous efforts in describing, interpreting and classifying various strategies. These taxonomies provide insights into the rich repertoire

of potential LLSs. Even though these classifications were useful, there was a need to develop a more comprehensive classification system.

Based on her synthesis of previous research and on factor-analytic, questionnaire-based studies of LLS among adult learners, Oxford developed one of the most widely accepted classification taxonomies in the language learning area. She initially adopted a version of Rubin's direct/indirect distinction but rapidly dropped this distinction when it proved theoretically unsustainable and not particularly useful to practitioners (R. Oxford, personal communication, March 10, 2005). Oxford's (1990, 2001) model of language learning strategies consists of six categories: memory strategies, cognitive strategies, compensation strategies, metacognitive strategies, affective strategies, and social strategies. Each of these is defined below and also illustrated with examples

Memory strategies. Memory strategies are specific devices (mnemonics) used by learners to make mental linkages that will allow new information, most often vocabulary, to enter and remain in long-term memory. Examples of memory strategies are to *make associations with what has already been learned, to draw pictures to help remember new words,* and to *repeatedly pronounce or write new words in order to remember them.* Although memory strategies could easily be viewed as cognitive strategies, their purpose is limited to memorization and involves mostly surface processing (Biggs, 1988). Prior research shows that memory strategies operate differently from many cognitive strategies in terms of frequency of use (Oxford, 1996; Lan & Oxford, 2003).

Cognitive strategies. Cognitive strategies help learners process and use the language for learning or for accomplishing a task involving the language, e.g., *watch TV in English, listen to radio/CDs in English, use English computer programs*, and *find similarities*

between first and second languages. Compared with memory strategies, the purpose of cognitive strategies is not simply memorization but instead deeper processing and use of the language (see Biggs, 1988, for deep and surface processing). This category is commonly used for research on second language learning (see Cohen, 1998, O'Malley & Chamot, 1990; Oxford, 1990, 1996).

Compensation strategies. Compensation strategies are intended to make up for missing knowledge while listening, reading, speaking, or writing. For example, use gestures or body language (for speaking), rephrase (for speaking or writing), ask for help (for listening, reading, speaking, or writing) and make guesses based on the context (for listening and reading). (Note: The last strategy could also be listed as a cognitive strategy, but it is included here as a compensation strategy because it makes up for a gap in knowledge.) (See Oxford, 1990, 1996).

Metacognitive strategies. Meta means "above" or "beyond," so metacognitive means "beyond" the cognitive. Metacognitive strategies encompass the planning, organizing, evaluation, and monitoring of one's own language learning, e.g., *organize time for learning, check one's progress,* and *analyze one's mistakes and try not to make them again.* This category is widely used in the second language field (e.g., see O'Malley & Chamot, 1990).

Affective strategies. Affective strategies help the learner deal with his or her own emotions, motivations, and attitudes while (or about) learning English. Examples of such strategies are *take risks, try to relax when feeling anxious about learning,* and *reward oneself for succeeding*. This category, sometimes combined with social strategies, is often involved in strategy work in second language learning (Oxford, 1990, 1996).

Social strategies. Social strategies refer to how learners interact with other people in the context of learning languages and related culture. Social strategies include, among others, *ask someone to speak slowly, practice with others* and *show interest in learning about the culture of English-speaking countries*. This category, sometimes combined with affective strategies, is often part of strategy research (Oxford, 1990, 1996).

As noted in the model shown above, Oxford broke down the social/affective category of O'Malley and Chamot (1990) into two categories, social and affective, and included more strategies in these two categories. The O'Malley and Chamot model contained only a few strategies in the social/affective category, implying by comparison with metacognitive and cognitive categories that social/affective strategies were not very important. The Oxford model's increased emphasis on social and affective strategies accorded with research from cognitive and educational psychology (Oxford, 1990, 2001). Furthermore, Oxford's model united the whole range of compensation strategies for making up for missing knowledge. Other LLS models had unsystematically scattered compensation strategies into categories such as cognitive strategies (see O'Malley & Chamot, 1990), communication strategies (e.g., Bialystok, 1978), and language use strategies (Cohen, 1998).

Despite any advances provided by this model, Oxford cautioned that "there is not complete agreement on how many strategies exit; how they should be defined, demarcated, and categorized: and whether it is – or ever will be – possible to create a real, scientifically validated hierarchy of strategies" (1990, p.17).

Hsaio's confirmatory factor analysis compared the six-category model to two other LLS models (O'Malley & Chamot, 1990; Rubin, 1981) and found that it explained

significantly more of the variance in learners' strategy use than did the other two models, as reported in detail in Hsaio and Oxford (2002). Oxford's model has been used by researchers and teachers around the world. Her *Strategy Inventory for Language Learning* (1990), based on this model, has been translated into 23 languages and used in more than 120 dissertations and theses.

Language Learning Strategies and Cognitive Theories

Weinstein and Mayer (1986) defined learning strategies (LS) broadly as "behaviors or thoughts that a learner engages in during learning that are intended to influence the learner's encoding process" (p. 315). Mayer (1988) more specifically defined LS as "behaviors of a learner that are intended to influence how the learner processes information" (p. 11). As mentioned earlier, LLSs are about processing information in an effective way in order to achieve successful outcomes for language learning. Whether it is LSs in educational psychology or LLSs in second or foreign language acquisition, there is obviously a link between LLSs/LSs and information processing theory in cognitive science.

As O'Malley and Chamot stated in their work on learning strategies and second language acquisition (1990), "The role of learning strategies in the acquisition of information generally can be understood by references to the information processing framework for learning" (p.17). According to this framework, when new information is acquired, it is stored in the short-term memory, i.e., the working memory which holds a limited amount of information for only a short period of time. Long-term memory, on the other hand, has an unlimited capacity regarding how much or how long information can

reside (Siegler, 1991). Most information is stored in long-term memory as either declarative knowledge or procedural knowledge (Anderson, 1983). Declarative knowledge refers to what we know or can declare, such as facts about people and places. Procedural knowledge refers to what we know about how to do something, such as knowing how to drive a car. Procedural knowledge is stored in memory as production systems which consist of a series of steps that include a condition and an action (O'Malley & Chamot, 1990, 1994). For example,

> If my goal is to memorize a new word,
> then I need to find out the meaning of the word first.

In order to meet the goal of memorizing a new word in the condition statement, the "I" must find out the meaning of the word by taking actions such as referring to a dictionary. Declarative knowledge is best learned by exerting existing memory structure or schemata and activating prior knowledge. Procedural knowledge is most effectively learned through practicing a complex procedure that is meaning-based and goal-oriented. Based on Anderson's work (1983), O'Malley and Chamot (1990) proposed that learning strategies be viewed as cognitive skills, which in Anderson's theory, can be "described as a set of productions that are compiled and fine-tuned until they become procedural knowledge" (p.43). Anderson described three stages of skill acquisition: the cognitive stage, the associative stage, and the autonomous stage. During the cognitive stage, learners acquire mainly declarative knowledge which can be verbally described. In the associative stage, errors are gradually detected and eliminated. Connections among the

components of the skill are consolidated. At this stage, declarative knowledge is gradually taking a procedural form. In the final autonomous stage, performance of the skills become improved, refined, and automatic, through much practice (pp. 25-26). O'Malley and Chamot later developed their three-category strategy model (metacognitive, cognitive and social-affective strategies) based both on Anderson's cognitive theory and their own research findings. (See the previous section on strategy classification).

O'Malley and Chamot concluded that "learning strategies are complex procedures that individuals apply to tasks; consequently, they may be represented as procedural knowledge which may be acquired through cognitive, associative and autonomous stages of learning" (p. 52). Nyikos and Oxford (1993) also employed information processing theory as an early framework to account for how learners process "new information via prior knowledge, schemata, or scripts" (p.11), although they expanded their theoretical foundation of LLS to include social-cognitive theory of Vygotsky (see Nyikos, 1996, Oxford, 1996; Scarcella & Oxford, 1992).

Language Learning Strategies and Social-Cognitive Psychology

Vygotsky's social-cognitive psychology, also known in some circles as social constructivism, provides a very important tenet of the roles of LLSs in facilitating second and foreign language acquisition. According to Vygotsky, an individual's cognitive system is a result of social interaction (Oxford, 1997). Such interaction is vital for the development of language acquisition both in formal learning conditions and in natural settings. Based on his theory of the *Zone of Proximal Development*, a learner will be able to perform at a level beyond the limit of his or her potential with the scaffolding of a

teacher or a more capable peer (Vygotsky, 1978). With such scaffolding and assistance, the learner then gradually becomes more independent in his learning. As the learner becomes increasingly equipped with what it takes to be an independent and autonomous learner, the scaffolding should be gradually removed.

The scaffolding provided by the teacher in the learning process encompasses all kinds of support to facilitate and enhance learning (for specific details, see Scarcella & Oxford, 1992). Language learning strategies are precisely a kind of scaffolding that teachers can provide. In other words, teachers can teach students new strategies and can help them sharpen their existing ones. Equipped with LLSs through instruction, learners will be able to employ them on their own to continue their learning process even with the absence of the teacher's support. After all, teachers will not be there for learners after they leave the learning environment; however, with the gain of "self-control and autonomy through strategy use" (Oxford & Nyikos 1989), learners will be able to continue their journey in the learning of either a second or a foreign language.

Piaget's Developmental-Cognitive Theory and Children's Language Learning

One of the most influential researchers into children's cognitive development is Piaget, whose work has contributed tremendously to our understanding of how children develop. According to his stage model, there are four major stages that mark children's cognitive development: (a) the sensorimotor period (birth to roughly two years), (b) the preoperational period (roughly two years to six or seven years), (c) the concrete operations period (roughly six or seven years to eleven or twelve years), and (d) the formal operations period (roughly eleven or twelve years onward). In the sensorimotor period, children learn

to operate physically by interacting with the environment. In the preoperational period, they learn to internally represent static states at a one-dimensional level. In the concrete operational period, "they become able to manipulate mentally their internal representations" (Siegler, 1991). In the formal operational period, children or adolescents are capable of mental operations in a reversible way. "Each one has his own ideas (and usually he believes they are his own) which liberate him from childhood and allow him to place himself as the equal of adults" (Inhelder & Piaget, 1958, pp. 340-341)

The target group in the current dissertation study ranges in age from 11 to 12 years old, which falls in the latter part of the concrete operations period and the beginning part of formal operations. Depending on the cultural and educational background, most or many children at these two stages become able to master many concepts and are able to think in possible alternatives. According to Piaget, children at the formal operations period are able to "think in terms of all possible outcomes, to relate actual outcomes to these logically possible outcomes, and to plan ahead" (Siegler, p. 56). It is very important to realize that children at this age are capable of thinking in both concrete and abstract terms and their cognitive development allows them to possess a sense of metacognition in terms of thinking own about their thinking and planning ahead.

Review of Research on Language Learning Strategies

Numerous research studies on L2 learning strategies have been conducted in Taiwan. Almost all of this research (with the exception of a college study by Wu, 2001) has concerned EFL learning. Among 24 research articles, theses, and dissertations written on L2 learning strategies, 11 focused on college/university students, six on senior high school

students, three on junior high school students, and four on elementary school students. The various themes investigated by Taiwanese researchers have included learning strategy use as associated with motivation (Ho, 1999; Liao, 2000; Peng, 2001), attitudes (Ho, 1999; Yang, 1992, 1993), learning styles (Hsu & Huang, 2004; Ko, 2001; Tsao, 2002), gender (Luo, 1998; Peng, 2001; Wang, 2002), and proficiency (Chen, 2001; Ho, 1999; Shieh, 1995; Wu, 2000). Some of the studies found that the concept of employing learning strategies was still new to many junior and senior high school students in Taiwan (Jong, 2001; Ko, 2001; Liao,1999).

This section integrates key Taiwanese studies along with studies from other countries and locations. Where possible, I have emphasized Taiwanese studies to provide a context for the present investigation. The topics covered in this review are:

- general results on strategy use in foreign versus second language contexts
- secondary school, college, university, and adult strategy studies
- studies on young children's strategy use

Strategy Use in Foreign Versus Second Language Contexts

In a comparison of strategy use patterns of 47 ESL and 43 EFL adult learners, some strategies seemed to "come more easily" (Kojic-Sabo & Lightbown, 1999, p. 189) to ESL learners than to EFL learners. The differences in learning environment played a clear role in these learners' strategy use. Existing research results suggest that the number and frequency of use of L2 learning strategies is usually higher in a second language setting (see, e.g., Rossi-Le, 1989) than in a foreign language setting (see, e.g., Park, 1994; Yang, 1994). Second language learners are surrounded by the language that is being learned and

often find that they must employ the language to survive; therefore, they use many learning strategies. In contrast, foreign language learners have less need for the language on a daily basis and often do not develop or use as many learning strategies. For a more complete discussion of frequency of strategy use in foreign versus second language contexts, see Green and Oxford (1995).

Secondary School, College, University, and Adult Strategy Studies

This section presents strategy investigations that have involved students from secondary schools, colleges, universities, or adult education institutions. In this section, "secondary school" refers to both junior and senior high schools. Here we present results from these various groups of students about (a) strategy use in relation to language performance, (b) gender differences in strategy use, and (c) strategy use as related to motivation, beliefs, and attitudes. Only statistically significant results are shown for studies that tested for significance (i.e., almost all the studies).

Strategy Use in Relation to Language Performance

In this research review, language performance is a general term referring to any of the following: language proficiency (i.e., performance in relation to general standards of competence but not in relation to a specific curriculum), language achievement (i.e., performance linked to a specific curriculum), and language task behaviors (i.e., performance on specific language tasks). Research on L2 learning strategies over the decades has indicated significant linkages between strategy use and language performance. According to the research, quantity and appropriateness of strategy use are associated with successful completion of

language tasks and with higher overall language achievement and proficiency (Chamot & El-Dinary, 1999; Chamot & Küpper, 1989; Dreyer & Oxford, 1996; Green & Oxford, 1995; Gu & Johnson, 1996; Kim, 2001; Ku, 1995; O'Malley, Chamot, Stewner-Manzanares & Russo, 1985; Oxford, 2000; Park, 1997; Watanabe, 1990).

An important proportion of the variance in L2 proficiency was explained by the use of learning strategies in various studies using the *Strategy Inventory for Language Learning* or a derivation of that instrument: 51% (Kato, 1996), 58% (Takeuchi, 1993), 53% (Dreyer & Oxford, 1996), and 40% (Oxford & Ehrman, 1995). Taken together, these results suggest rather consistently positive relationships, ranging from mild to somewhat strong, between strategy use and L2 proficiency.

Although some studies (e.g., Phillips, 1990) found a curvilinear relationship between strategy use and language performance, with intermediate-performing learners employing learning strategies more often than low-performing or high-performing learners, most studies have uncovered a positive, linear relationship between strategy use and language performance. In various studies, language performance levels have been based on scores on norm-referenced or criterion-referenced tests (Bremner, 1999; Green & Oxford, 1995; Phillips, 1990), scores decided by teachers (Chamot & El-Dinary, 1999; Chamot & Küpper, 1989; Kiely, 2002), or self-ratings by learners (Wharton, 2000).

Fleming and Walls (1998) examined foreign language learning strategies of six "good language learners" in two mainstream secondary schools in a British city. The pupils completed foreign language learning tasks and participated in semi-structured interviews about the learning strategies they used. Results showed that the learners

employed metacognitive strategies, especially planning, and a range of cognitive strategies for understanding and using the language. Findings were used to profile a set of strategies used by good language learners and to suggest implications for the National Curriculum for Modern Foreign Languages.

Many Taiwanese studies at the secondary school level and above investigated the linkage between strategy use and language proficiency. These studies lent support to the hypothetical significant relationship between the two variables (Chen, 2001; Lin, 1999; Luo, 1998; Shieh, 1995; Tsao, 2002; Wang, 2002; Yang, 1992, 1996, 1999). In other words, high-proficiency learners studying EFL in Taiwan tended to report significantly more frequent use of learning strategies than medium- and low-proficiency learners.

Here are a few specific Taiwanese examples in which strategy use was significantly related to language proficiency. Chen (2001) studied the EFL strategy use of 276 junior college students in central Taiwan and found that the high-proficiency learners showed a more frequent use of strategies than the low-proficiency group. Compensation and memory strategies were found to be the most and least frequently used strategies, similar to the result found in Yang's study (1992).

In Wang's (2002) study of 301 Taiwanese senior high EFL learners, a significant relationship arose between strategy use and listening proficiency. In general, more effective listeners applied more strategy use than did less effective listeners. More effective listeners exhibited significantly higher strategy use, employing strategies such as planning, monitoring, self-evaluating, practicing, processing both top-down and bottom-up, note-taking, grouping, summarizing, and socially interacting. In contrast, less

effective listeners, compared with more effective listeners, tended to rely more on translation for listening comprehension.

EFL listening strategies were also the topic of Lin's (1999) investigation of 258 students from six senior high schools in two major cities in the south of Taiwan. Students' listening was rated as high-, intermediate-, and low-proficiency based on scores on the Michigan Listening Comprehension Test. High-proficiency learners applied

listening strategies more frequently and flexibly, including using comprehension monitoring and problem solving, in comparison to the strategy use of low-proficiency learners, who depended more on native-language clues.

Wu (2000) investigated the strategy use of 108 Taiwanese college students studying Japanese. Wu administered a translated version (in Japanese) of the *SILL* (Oxford, 1990) and found that high-proficiency Taiwanese learners of Japanese used more learning strategies with greater frequency than did less proficient learners.

Gender Differences in Strategy Use

Numerous studies have discerned gender differences in language learning strategy use in both ESL and EFL contexts (Ehrman & Oxford, 1989; Green & Oxford, 1995; Oxford & Nyikos, 1989; Sy, 1994; Yang, 1993; Zoubir-Shaw & Oxford, 1995). In most of the studies in which gender differences emerged, the results showed that females reported using L2 strategies significantly more often than males. For instance, Politzer (1983) found that female ESL learners employed more social strategies than male learners. Among university students learning foreign languages, females used more

formal, rule-based practice strategies and more strategies to elicit input in conversation (Oxford & Nyikos, 1989). In research on EFL students in China, Sy (1994) concluded that females reported greater use of cognitive, metacognitive, and social strategies than their male counterparts. Oxford (1993a, 1993b) offered many possible biological and sociocultural reasons for gender differences in L2 strategy use. Ehrman and Oxford (1989, p. 8) pointed to documented "female superiority in verbal aptitude and social orientation, as well as possible sex differences in integrative (socially-based) motivation" and in psychological type.

However, gender differences are not necessarily universal. For instance, Taiwanese studies showed mixed results concerning the relationships between gender and strategy use. Wang (2001) investigated 301 Taiwanese senior high school EFL learners' listening comprehension strategy use. In Wang's research, female listeners reported more frequent use of strategies than male listeners. Compared with male listeners, females planned their listening, employed both top-down and bottom-up processing, took notes, and asked others for help significantly more often. However, no gender significance was found in Taiwanese studies by Luo (1998) and Peng (2001).

Strategy Use Associated with Motivation, Attitudes, and Beliefs

Research shows that EFL strategy use was significantly related to learners' motivation, attitudes, and beliefs about language learning and about learning strategy use. Yang (1996) investigated the strategy use of 68 Taiwanese university students. Data collected both from Yang's *English Learning Questionnaire*, a slightly revised version of Oxford's *SILL* (1990), and group interviews indicated that the students were able to "improve the use of their learning strategies through awareness-raising in group

interviews and informal strategy instruction" (Yang, 1996, p. 204). Awareness-raising included discussion about beliefs concerning language learning and learning strategies.

In a study of 505 Taiwanese university students, Yang (1996) reported that the students' self-efficacy about learning English – that is, the learner's belief that he or she can be successful in learning English – was closely related to the use of most kinds of learning strategies. Those who had greater English self-efficacy used strategies more frequently, especially strategies for functional, communicative practice. In addition, the study showed that Taiwanese students' beliefs about the value and nature of learning spoken English were significantly related to the use of formal, oral-practice strategies.

Also in Taiwan, Peng (2001) explored the relationship between EFL learning motivation and strategy use. A total of 326 senior high school students participated in this study. Significant differences were found between strategy use and each motivational aspect (namely, motivational intensity, intrinsic motivation, extrinsic motivation, and requirement motivation). Requirement motivation meant learning the language because of being forced to do so. Requirement motivation was significantly but negatively correlated with strategy use, as well as learners' achievement. Thus, high school students who had to study English (requirement motivation) used strategies significantly less often and performed more poorly than students who were motivated to learn English. Gender difference was not identified in this study.

Liao (2000) conducted a central-Taiwanese junior high school study on EFL learning motivation and strategy use. Data were collected using multiple methods, including questionnaires, semi-structured interviews, and classroom observation. Three

questionnaires were administered: the *Motivational Intensity Questionnaire* (Gardner 1985), the *Motivational Questionnaire* (Schmidt & Kassabgy, 1996), and Oxford's *SILL* (1990). Findings indicated that students lacked deep motivation to learn English and, when motivated at all, tended to be extrinsically motivated. Most of the students did not frequently report using a wide range of categories of EFL learning strategies. Students' low English-learning motivation was significantly correlated with their low use of learning strategies.

Relationship between Strategies and Learning Styles

Ko's Taiwanese study (2002) investigated how 161 junior high students' EFL learning strategies were affected by the students' perceptual learning style preferences. Participants completed two questionnaires, adapted from Oxford's *SILL* (1990) and Reid's *Perceptual Learning Style Preference Questionnaire* (1987). Results showed that students with a multiple style and students with a visual/nonverbal style had higher English achievement than students with other style preferences. Regarding overall strategy use, no significant difference was found among groups with different perceptual style preferences. Kinesthetic/tactile-style learners used significantly more memory-related, compensation, and social strategies than did other style groups. Visual/nonverbal and multiple-style learners used significantly more affective strategies than other style groups. However, students' strategy use was not at a high frequency level in general.

Young Children's L2 Learning Strategies

This section focuses primarily on the strategy use of young children of elementary-school ages. It consists of (a) young children's use of different types of strategies and (b) the link between young children's strategy use and proficiency. Table 2.2 at the end of the chapter summarizes these studies.

Young Children's Use of Various Types of Strategies

This part deals with the kinds of strategies employed by young children in various studies: cognitive and error-avoiding strategies, strategies for initiating conversations and interacting socially, private-speech strategies, vocabulary-learning strategies, and multiple strategies.

Young children's use of cognitive strategies (e.g., overgeneralization, analogy) and error-avoiding strategies (e.g., simplification)

Investigations of young learners' L2 learning strategies have often focused on natural or semi-structured oral communication as a window into the learning strategies these students use. For instance, Bautier-Castaing (1977) examined the learning of French syntax by 60 Francophone children, as well as 75 children of various nationalities who were learning French as a second language (FSL) and had been in France for less than nine months. Participants were aged four to eight. French utterances were gathered and analyzed according to types of errors in French syntax during a test in which pictures were used as conversation-prompts. Frequent learning strategies among the FSL students included cognitive strategies, such as overgeneralization of linguistic rules and analogy,

and error-avoiding strategies, such as simplifying structures. Bautier-Castaing asserted that these strategies reflected the "creative construction" process, in which language learners actively construct their concept of the new language.

In a study of young children's language development, Hopper (1972) expanded on the learning strategy of overgeneralization of linguistic rules (see Bautier-Castaing above) and showed how this strategy is linked to successive differentiation of exceptions to the overgeneralized rules. Although this was not an L2 study, Hopper's description is relevant to the L2 situation. The sequence goes as follows. The child discovers a meaning or function to be communicated, along with a way to communicate it. Subsequently, the child overgeneralizes this rule to many situations. The child receives feedback on overgeneralization and sorts out those events in which the communication was effective and in which it was not. Based on this, the child formulates a new rule to deal with the unsuccessful overgeneralization. The new rule is then overgeneralized, and the child learns from other people's responses about whether the new rule fits. This cycle keeps on going, and gradually the child's linguistic knowledge becomes more specialized, detailed, and helpful.

Young Children's Use of Conversation-initiation Strategies and Social-interaction strategies

In a study of first-grade Spanish speakers in the U.S., Wong Fillmore (1976) found a student, Nora, who was far superior to the other children in learning ESL. By the end of the school year, Nora had learned more English than many of her peers would in two years or more. Nora's distinguishing characteristic was that she seized every possible opportunity to use her English skills when interacting with other children. She initiated

more interaction with native English speaking peers than did the other Spanish-speaking children. She used guessing frequently. Nora gave the impression that she could speak English fluently by employing whatever she knew and not worrying about details. This kept her in conversations that would otherwise have ended, and it allowed her oral proficiency to continue to grow as she was included in conversations and activities. In this study, most ESL learners initiated far fewer interactions with native speakers than did Nora.

Not surprisingly, a different study by Wong Fillmore (1985) found that many Chinese ESL learners with imperfect or weak English skills were reluctant to initiate conversations with native English speakers. Since not all young ESL students are likely to initiate conversations with their native English-speaking peers, native English-speaking children must often start conversations, with ESL learners responding. Hirschler (1994) studied interactions initiated by five native English-speaking preschool children in a classroom that was comprised half of native English speakers and half of ESL learners (speakers of Spanish or Khmer).

Just as Wong Fillmore found wide variation in how often ESL learners initiated classroom discussion with native English speakers, Hirschler's native English speakers varied greatly in how often they initiated talk with ESL learners. The mean was once every 15 minutes during the time they spent together. Although responding to a native speaker's overtures can be a very important learning strategy, ESL learners responded less than half the time, which Hirschler partly explained by saying that some native-speaker utterances were not designed to elicit responses or were too long for ESL

learners to respond to. Native English-speaking girls, compared with their male peers, spent far more time with ESL learners and much more often encouraged ESL learners to speak. This coincides with other research, summarized by Garvey (1990), suggesting that young girls, compared with young boys, show greater communicative competence and attentiveness to their partners' speech. According to Hirschler, native English-speaking children who want to help second language learners should be trained in strategies such as repetition, restatement, and request for clarification. Although Hirschler did not mention it, these same behaviors are useful learning strategies for L2 learners (O'Malley & Chamot, 1990; Oxford, 1990).

In yet another investigation of the oral ESL development of children from Hispanic and Chinese backgrounds in grades three to five, Wong Fillmore, Ammon, McLaughlin, and Ammon (1985) found that Chinese students did best in classrooms that were strongly teacher-directed, while Hispanic students appreciated more opportunities to interact with native English-speaking peers. The two ethnic groups used various types of different learning strategies, with Chinese students relying on strategies that did not involve social interaction and Hispanic students preferring socially-based strategies. In this study of elementary-school children, as in many investigations involving older L2 learners (see Oxford, 1996), choice of learning strategies was related to linguistic/ethnic background.

Chesterfield and Chesterfield (1985) examined the ESL learning strategies of 14 young Mexican-American children in a bilingual classroom. Their definition of strategies was based on an expanded concept of oral communication strategies developed by Elaine Tarone (1981). The children in the Chesterfield and Chesterfield study were observed

over a focused period of days at the beginning and end of a preschool year, as well as in the first grade. The study found that these children frequently used observable language learning strategies, often involving social interaction, and that strategy use comprised a large proportion of these children's activities. The researchers proposed a hierarchical development (natural order) of children's language learning strategies. This study of learning strategies, based as it was on Tarone's categories, was possible because these Hispanic students were comfortable with social interaction.

Young Children's Use of Private-speech Strategies, Especially During the Silent Period

However, lack of social interaction does not necessarily indicate that an L2 learner is not learning the language or not using learning strategies. Many learning strategies may be employed during a so-called "silent" period (cessation of verbal communication with native speakers) that often occurs early in the course of L2 development, as demonstrated in a study by Saville-Troike (1988). In this study, nine ESL learners (Chinese, Japanese, and Korean native speakers, aged three through eight) experienced a silent period. Video recordings with radio microphones under natural conditions revealed that most of these children, although not interacting in English with native English speakers or others, employed private speech (talking to oneself) for learning English. The private-speech learning strategies they used during this so-called silent period were: (a) repeating others' utterances, (b) recalling and practicing, (c) creating new linguistic forms, (d) substituting expressions using a mental paradigm, (e) expanding expressions based on syntactic knowledge, and (f) rehearsing for later overt social performance. The quantity and quality of the private speech of these children were related to the following: (a) level of cognitive

development, (b) difficulty of the learning task, (c) social orientation, (d) learning style, and (e) linguistic elements being learned.

Young Children's Use of Multiple Strategies

As part of a six-year longitudinal study of French, Spanish, and Japanese elementary immersion programs in the United States, Chamot and El-Dinary (1999) identified learning strategies used by more effective and less effective young learners in elementary school. Teachers were asked to rate their elementary immersion students as high-, average- and low-proficiency students. Additional data were collected using think-aloud interviews with 44 third- and fourth-grade students. Through their studies, the researchers concluded that the children, no matter what their proficiency level, were capable of describing their thinking and learning process in detail, thus showing that "metacognitive awareness begins at quite an early stage" (Chamot & El-Dinary, 1999, p. 331).

Young Children's Task-related Strategy Use

Pinter (2000) investigated task-related strategy use by 20 ten-year-old Hungarian children learning English as a foreign language. These children were paired up for four communication tasks: (a) Picture recognition – speaker A described his pictures while speaker B identified the pictures among his distractors, (b) Spot the difference - speakers A and B worked together on discovering differences between their sets of pictures, (c) Describe and draw – speaker A described his picture to B who had to draw it, and (d) Picture reconstruction – speakers A and B worked together to complete their pictures from the information obtained from each other. A total corpus of about 13,000 words was

gathered from the children on the four tasks. Three major findings emerged from the data analysis (p.16):

1. Learners used L1 in order to double check words or expressions not available in L2, and to engage in task-related discourse to establish common ground about the task before carrying it out. Task 4 in particular prompted a lot of use of the L1, but the tendency is the same everywhere.
2. Learners appealed for assistance from the adult present with queries that were not absolutely essential for carrying out the task. They made use of the constant availability of the adult to satisfy their curiosity.
3. Learners built patterns by repeating what they were comfortable with over and over again. They played safe and tried to exploit a given phrase as much as possible. This was especially noticeable for tasks 3 and 4.

Pinter concluded with three suggestions for future research: (a) the data should be further analyzed from various other perspectives, such as the communication strategies used, the quality of the meaning negotiations, and other features of the spoken output, (b) it would be crucial to compare/contrast this data with baseline data yielded in L1 on the same tasks to clearly isolate the effects of a foreign-language medium, and (c) the results should be handled with caution since the interactions were carried out under very special circumstances, out of the classroom, with an adult present all the time. Nonetheless, Pinter's study did provide information on what strategies children applied when performing communication tasks.

Young Children's Strategy Use in Relation to Proficiency

This section looks more closely at young children's strategy use as associated with L2 proficiency. Research cited earlier indicated that for some young learners, (e.g., those from Hispanic backgrounds), greater proficiency was associated with more frequent use of social strategies, including initiating or participating in peer interaction (Chesterfield & Chesterfield, 1985; Wong Fillmore, 1976; Wong Fillmore et al., 1985). However, one study showed that Chinese learners performed better without the use of social interaction strategies (Wong Fillmore et al., 1985).

In the Chamot and El-Dinary (1999) United States study described above, a close relationship emerged between strategy use and proficiency. More proficient foreign language learners in the elementary grades reported using more strategies – and more task-appropriate ones – than did average-proficiency or low-proficiency learners. On a reading task, high-proficiency learners focused more on sophisticated learning strategies, such as using background knowledge and making inferences, while low-proficiency learners depended on the strategy of phonetic decoding.

Based on a three-year Pilot Project for Modern Language (PPML) in Irish primary schools, Kiely (2002) examined the strategy use of fifth- and sixth-grade students. She interviewed 12 foreign language learners whose proficiency levels were defined as high, average, and weak, based on language teachers' ratings. Four items were included in the interviews: (a) *I learn new words by*. . . , (b) *I understand best when*. . . , (c) *I remember by*. . . , (d) *I enjoy learning best when*. . . . Children's responses were successfully categorized according to O'Malley and Chamot's (1990) three strategy categories:

cognitive, metacognitive, and social-affective. However, findings failed to support the expectation of a linear relationship between learners' proficiency and their strategy use. Average-proficiency learners reported using strategies most frequently while high-proficiency learners reported the lowest frequency. Possibly a curvilinear pattern was present, as found in Phillips' (1990) study, but this was not investigated. In Kiely's study, low-proficiency learners relied more on cognitive strategies, while high-proficiency students used more social-affective strategies.

Gunning (1997) investigated 107 fifth-grade Francophone students learning ESL in Québec, Canada. Students' ESL proficiency was identified as high, medium, or low based on the results of two criterion-referenced tests. To assess language learning strategies, Gunning employed the *Children's Strategy Inventory for Language Learning* or *Children's SILL* (Gunning, 1997, adapted from the original *SILL*, Oxford, 1990). Gunning kept the original *SILL* structure but reduced the number of items, simplified the wording, and made sure that all items related to children's real-life experience. I gathered Children's *SILL* data and conducted a semi-structured interview with a subsample of 20 students. Results showed significant differences in strategy use according to children's proficiency levels. High-proficiency learners, compared with the other students, employed a greater number and greater variety of learning strategies. This pattern was similar to that found in numerous studies of adolescent and adult language learners. ln Gunning's study, high-proficiency learners differed from medium- and low-proficiency groups in the frequent use of affective (emotion- and motivation-related) learning strategies, leading to the conclusion that helping children develop such strategies might reduce children's language-learning anxiety and increase their proficiency. Unlike

many studies with the original *SILL*, Gunning's investigation did not identify significant gender differences in the use of learning strategies.

Taiwanese Children's Learning Strategies

A growing interest in children's language learning strategy use has been triggered mainly due to the formal implementation of English education in the elementary schools since 2001. This section focuses on five studies that have been conducted to date which consists of elementary school students' vocabulary learning strategies and learning strategies in relation to gender, proficiency, personality traits, liking of English and various English learning experiences.

Elementary School Students' Use of Vocabulary-learning Strategies

There are two Taiwanese elementary-school studies exploring EFL children's vocabulary learning strategies to date. One of them was conducted by Lin (2001), who examined the vocabulary learning strategies of seven Taiwanese learners in a case-study design. Although this investigation had only a small sample, it provided very useful results, to be explained in some detail. The students in Lin's (2001) elementary-school study were all learning EFL at a private English institute, and all had had at least one year of experience learning English there. They had no English instruction in their elementary school. This study used multiple data collection methods, including classroom observation, written records, oral interviews, and think-aloud protocols. Two vocabulary tasks were used in the think-aloud protocols. One was to memorize the newly taught words of each lesson and the other was to preview the reading text to be taught. Data was employed to create a frequency profile of strategy use for each student.

I counted the frequency of use of each vocabulary learning strategy and the number of times each individual student used it. No statistical analysis was run. Seventy-three vocabulary learning strategies were identified and categorized into 18 major strategies: four metacognitive strategies (preparing in advance, selectively attending to specific details, monitoring, and self-managing), 11 cognitive strategies (writing repeatedly, speaking repeatedly, segmenting words, applying phonics, making associations, using resources, making inferences, predicting, elaborating, recalling, and one other strategy, which actually consisted of three: note-taking, reading aloud, and reading target vocabulary once), and three social-affective strategies (asking for help, cooperating with others, and testing each other).

According to Lin (2001, p. 141), many of the studies conducted with older learners (e.g., Green & Oxford, 1995; Gu & Johnson, 1996; Kojic-Sabo & Lightbown, 1999) found that learners' vocabulary size or overall language proficiency was related to the following four aspects of vocabulary learning: (a) skillful use of the dictionary, (b) self-initiation in learning, (c) willingness to spend time on vocabulary learning, and (d) active practice of newly learned words outside of the classroom. Lin's study, however, showed that "all the [young] participants fell short in the above four aspects." For example, when using a dictionary, the students checked only for the definition in Chinese instead of looking at word usage or examples of English words in sentences. Students' vocabulary learning was limited to "rote memorization" (p. 145). Students' lack of opportunity to use newly taught words outside of the classroom was attributed to (a) the characteristics of the participants' English assignments and vocabulary quizzes and (b) the EFL environment.

Another interesting result from this study was the fact that only one participant used note-taking as a strategy to learn vocabulary. In contrast, note-taking was found to be one of the most frequently used strategies by adult learners (e.g., Cortazzi & Jin, 1993; Gu & Johnson, 1997; Kojic-Sabo & Lightbown, 1999; Sanaoui, 1995). Lin suggested that elementary school teachers should (a) provide direct and explicit instruction in vocabulary learning strategies, (b) refine and develop vocabulary learning strategies, and (c) devise appropriate vocabulary assignments and vocabulary quizzes, and (d) promote opportunities for encountering and practicing new English lexical items.

The other Taiwanese study focusing on elementary school students' vocabulary learning strategies was done by Kung (2003) who investigated the correlations between students' vocabulary learning strategy use and their proficiency levels. Like Lin (2001), Kung also employed multiple instruments for her data collection, including a proficiency test, a questionnaire, and an interview. She used a random sampling of 172 sixth grade students from an elementary school in Taipei first, she administered a proficiency test, and based on the results selected two groups of students, one with 32 proficient learners, and the other with 32 less proficient learners. These students filled out a vocabulary learning strategy questionnaire based on Schmitt's framework (1997) and Lin's research (2001). Finally, 12 students from each group were chosen and a structured interview was conducted.

According to the findings of the questionnaire, it was found that the more proficient learners used vocabulary learning strategies significantly more often than the less proficient learners. The interviews also revealed similar results which validated the significant relationships between students' vocabulary learning strategy use and their

English proficiency levels. In addition, the interviews also provided important information concerning students' strategy use in tackling with vocabulary learning: These 24 students reported using a rich array of various strategies for learning vocabulary. Compared to the less proficient learners, more proficient learners made much more use of different resources, such as English storybooks and magazines for vocabulary learning, and therefore reported using more strategies for those situations. More proficient learners also applied more strategies in mastering the correspondence between the spelling and speech sounds by using K.K. phonetic symbols or phonics to memorize English words. Additionally, the more proficient learners memorized English words more effortlessly and spent less time than the less proficient learners. Furthermore, more proficient learners employed strategies such as connecting the target English words with interesting Chinese sounds, grouping the words that sounded alike, using the target word to make a sentence, and self-testing to see if they had memorized the new words. Another important finding was the fact that these more proficient learners were all attending private English institute and thus had more prior learning than the 12 less proficient learners (except for one student).

Kung further provided implication for instructional practice: (1) Teachers should provide strategy instruction to facilitate their young learners' vocabulary learning, particularly in enhancing low proficient learners' phonetic awareness; (2) EFL teachers should keep encouraging students to use the strategies that the students had already been using, despite that these were cognitively shallower strategies like verbal and written repetition; (3) Reasonable demand on students' habit formation of memorizing vocabulary should come from teachers and parents; (4) EFL teachers should offer their

students with materials in different contexts to help cultivate their vocabulary learning strategies; and (5) With the positive correlations between students' vocabulary learning strategies and their English proficiency, the importance of the role of vocabulary in students' English learning can not be overemphasized.

Elementary School Students' Strategy Use Associated with Their Learning Experience

One of the most recent and large-scale studies investigating Taiwanese children's language learning strategies was conducted by Su (2003), who included 932 5th and 6th grade students from eight elementary schools in Taipei, Taiwan. Her study focused on the students' strategy use and their language learning experience by employing two sets of questionnaires: the background questionnaire and the *Language Learning Strategy Inventory* (*LLSI*) adapted from Oxford's *SILL* (1990). According to the results, it was found that the students reported using all six types of strategies for learning English. Gender differences also emerged, with girl students using significantly more strategies than boys did. Statistical significance was also found in six of the seven variables of interest: (a) years of studying English, (b) years of studying English outside of school, (c) years of living in English-speaking countries, (d) experience of traveling abroad, (e) level of parental support, and (f) general level of enjoyment in learning English. The only variable that did not yield any significant results was students' experience of studying English in English-speaking countries. Su then concluded with six pedagogical implications: (a) language instructors must confront the existence of language learning strategies in all learners, regardless of age; (b) language instructors should understand students' language learning experience; (c) it is essential for boy students to be made aware of the importance of language learning strategies; (d) early formal English

language instruction maybe helpful for students' use of language learning strategies; (e) it is important for language instructors to bring real-life situations to their language classroom; (f) it is crucial to motivate students and engage them in joyful learning and thus promoting language learning strategy use.

Elementary School Students' Strategy Use in Relation to Gender and Personality Differences

The most up-to-date Taiwanese study investigated the relationships between elementary school students' learning strategy use in regard to gender and personality differences. Hsu and Huang (2004) included a random sample of 163 sixth grade students from six elementary schools located in central Taiwan. Three instruments were employed for data collection: (a) Oxford's *SILL (199),* (b) Lai's *Personality Assessment,* and (c) a semi-structured interview. Since the researchers were only interested in the indirect strategy use by the students, they adopted part D, E, and F of the *SILL* version 7.0 with a total of 29 items. The Personality Assessment was used to identify whether the students belonged to the extroverted or introverted type of personality. After analyzing the results of the questionnaires, six students from each school (a total of 36) were selected based on gender and personality traits. Their findings were congruent with the other three studies on Taiwanese elementary school students' learning strategy use (Hsu & Huang, 2004; Lan & Oxford, 2003; Su, 2003): students reported using a medium to low range of strategy use, and gender differences existed, with girls using significantly more strategies than boys. In terms of personality traits, it was found in their study that the extroverted students employed significantly more strategies than the introverted students did. The study concluded with two implications for classroom teachers: first, they should

incorporate language learning strategy instruction in the classes and second, they should take into account the students' personality traits in strategy instruction.

Taiwanese Children's Strategy Use Versus Gender, Proficiency and Attitude toward Learning English

In research that served as a pilot study for the current research, Lan and Oxford (2003) investigated a group of 379 sixth grade students (202 boys, or 53%, and 177 girls, or 47%) learning EFL in a public elementary school in the northern part of Taiwan. The original *Taiwanese Children's SILL* (Lan, 2003) was administered, and quantitative data were collected and analyzed. The results showed consistent evidence of positive linear relationships among students' strategy use and three variables, namely gender, proficiency and attitudes toward learning English. The findings showed that (a) Taiwanese elementary-school students were already using all six categories of strategies (Oxford, 1990) but the frequency use was in the medium range; (b) Taiwanese students rarely used metacognitive and social strategies; (c) less than one-fourth of the students reported liking English; and (d) girls tended to use more strategies than boys in all six strategy categories. The implications provided by this study for pedagogical practice includes (a) integrating cooperative learning, (b) boosting students' motivation, (c) using various resource and methods to promote EFL learning, (d) accommodating gender differences in strategy use, and (e) incorporating strategy instruction. Table 2.2 presents three Taiwanese studies on elementary school students learning strategy use.

Table 2.1.
Major Studies on Children's Learning Strategies

Study	Bautier-Castaing (1977)	Wong Fillmore (1985)	Chesterfield & Chesterfield (1985)	Saville-Troike (1988)	Gunning (1997)	Chamot & El-Dinary (1999)	Anstrom (2000)	Kiely (2002)	Lan & Oxford (2003)
Location of Study	France	U.S.	U.S.	U.S.	France	U.S.	U.S.	Ireland	Taiwan
Language Learning Environment	Both French (L1) & FSL	ESL & English/ Chinese bilingual	English/ Spanish Bilingual program	ESL	ESL	Foreign language immersion	Foreign language immersion	FL	EFL
Participants	Age 4-8, 60 Francophone & 75 FSL	50 kindergarten students	14 G1 students	9 age 3-8 nursery & elementary school students	107 G5 Francophone students	44 G3 & G4 students	143 G4 G5 & G6 students	12 G5 & G6 students	379 G6 students
Native Language	French and varied	Mainly Chinese	Spanish	Chinese Korean Japan	French	English	Mainly English	English	Chinese
Research Focus	Language learning strategy use	SLA & L1/L2 use	Language learning strategy use	Language learning strategy use through private speech	Language learning strategy use & proficiency	Language learning strategy use & efficiency	Language learning strategy use & self-efficacy	Language learning strategy use & proficiency	Language learning strategy use & proficiency/ gender/ liking English
Task-based	N	N	N	N	N	Y	N	N	N
Strategy Assessment Methods	Conversation test	Systematic observation	Systematic observation	Audio & videotaped classroom observation	Questionnaire (*Children's SILL*)[2] & semi-structured interview	Think-alouds interview	Two questionnaires (*ILSQ* & *ISEQ*) [3]	Interview	Questionnaire (*Taiwanese Children's SILL*)[4]

[2] *Children's SILL- Children's Strategy Inventory for Language Learning* (based on Oxford's *SILL* in 1990)
[3] *ILSQ - Immersion Learning Strategies Questionnaire*, *ISEQ - Immersion Self-Efficacy Questionnaire*
[4] *Taiwanese Children's SILL- Taiwanese Children's Strategy Inventory for Language Learning* (based on Gunning's *Children's SILL* in 1997)

Table 2.2
Comparison Among Five EFL Taiwanese Studies on Elementary School Students' Language Learning Strategies

Study	Lin, 2001	Kung, 2003	Su, 2003	Lan & Oxford 2003 Pilot study	Hsu & Huang, 2004
Location of study	Taichung, Taiwan (Central region)	Taipei, Taiwan (Northern region)	Taipei, Taiwan (Northern region)	Hsin-Ju, Taiwan (Northern region)	Taichung Taiwan (Central region)
Instrumentation	Classroom observation, written records, oral interviews, think-aloud protocols	Proficiency test, *Vocabulary Learning Strategy Questionnare*i	Questionniares : Background questionniare, Langualge Learning Strategy Inventory (*LLSI*, Su 2003)	Questionnaires : Backgroudn questionnaire, *Taiwanese Childre's SILL* (Lan, 2003)	Questionnaires : Background questionnaire, Part D.E. & Fof *SILL,* version 7.0 (Oxford, 1990) student interview
Participants	7 elementary school students (aged 11-12)	172 sixth graders	932 fifth-and sixth-graders	379 sixth-graders	163 sixth-graders
Gender	3 boys, 4 girls	88 boys, 84 girls	Not indicated	202 boys, 177girls	90 boys and 73 girls
Research focus	What vocabulary learning strategies were used and how, when and why they were used by students	What vocabulary learning strategies were used by students, Proficiency	Gender, years of studying English, years of studying English outside of school, years of living in English-speaking countries, experience of traveling abroad, level of parental support, general level of enjoyment in learning English, experience of studying English in English-speaking countries	Gender, proficiency, liking of learning of English	Gender, personality traits
Overall strategy use	73 vocabulary learning strategies were found	N/A	2.9 on the *LLSI* (Medium use)	2.9 on the *Children's SILL* (Medium use)	3.0 on the *SILL* (Medium use)
Findings on gender	N/A	N/A	Statistical significance existed (girls>boys)	Statistical significance existed (girls>boys)	Statistical significance existed (girls>boys)
Findings on proficiency	N/A	Statistical significance existed	N/A	Statistical significance existed	N/A

Conclusion

I provided definitions by key researchers on language learning strategies and then drew a theoretical framework from both cognitive and social psychology. A review of empirical studies conducted on language learning strategies around the world was then presented, with a special focus on the Taiwanese studies. I then provided a detailed literature review on children' language learning strategies in the United States, Canada, and Ireland. Further research on the strategies used by elementary school students from Taiwan concluded the chapter.

CHAPTER 3

METHODOLOGY

Introduction

This chapter provides a comprehensive description of the research methodology employed in the current study. I first present the rationale for using a mixed-method design and then describe the educational setting of the study. Details of the methodologies for both Phase I and Phase II are then described, including participants, instrumentation, data collection, and data analysis procedures.

The current study investigates language learning strategy use by EFL elementary school students in Taiwan. It is intended to first explore the strategy profiles and factors that might affect and shape the profiles, and then probe into the specific strategies students use on an authentic vocabulary task. In order to achieve these two purposes, the following research questions, reiterated here for ease of reading, are designed to guide the inquiry:

Question 1: What does the Background Questionnaire tell us about students' geographic area, gender, prior English learning experience, self-choice of English learning, proficiency self-rating, degree of liking English, and their parents' educational background?

Question 2: For the entire group of students, what is the total strategy-use mean (i.e., the overall mean frequency on the entire Taiwanese Children's SILL)?

Question 3: For the entire group of students, what are the strategy-use means for each of the strategy categories?

Question 4: How do these overall EFL results compare to those found in other learning strategy studies involving elementary school children?

Question 5: For the entire group of students, what are the five most and the five least used strategies?

Question 6: Are there significant relationships among the following variables: strategy use (total us and use by strategy category), geographic area, gender, parents' educational background, prior English learning experience, self-choice of English learning, proficiency self-rating and degree of liking English?

Question 7: What additional information do 12 students' vocabulary performance task and strategy interviews provide beyond that offered by the strategy questionnaire given to the whole sample?

These questions entail investigations on both a macrocosmic, whole-group profile of the participants' language learning strategy use and a microcosmic, individual presentation of the specific vocabulary learning strategies generated from the performance task. Thus a mixed-method design was initiated.

Rationale for a Mixed-Method Design

The current study employs a mixed-method design, which includes both

quantitative and qualitative research methods. According to Creswell (2003), this is an inquiry strategy that is focused on "converging or triangulating different quantitative and qualitative data sources" (p. 210). Such a design integrates both approaches, which complements each other to provide a much more detailed and comprehensive picture of that which is being explored.

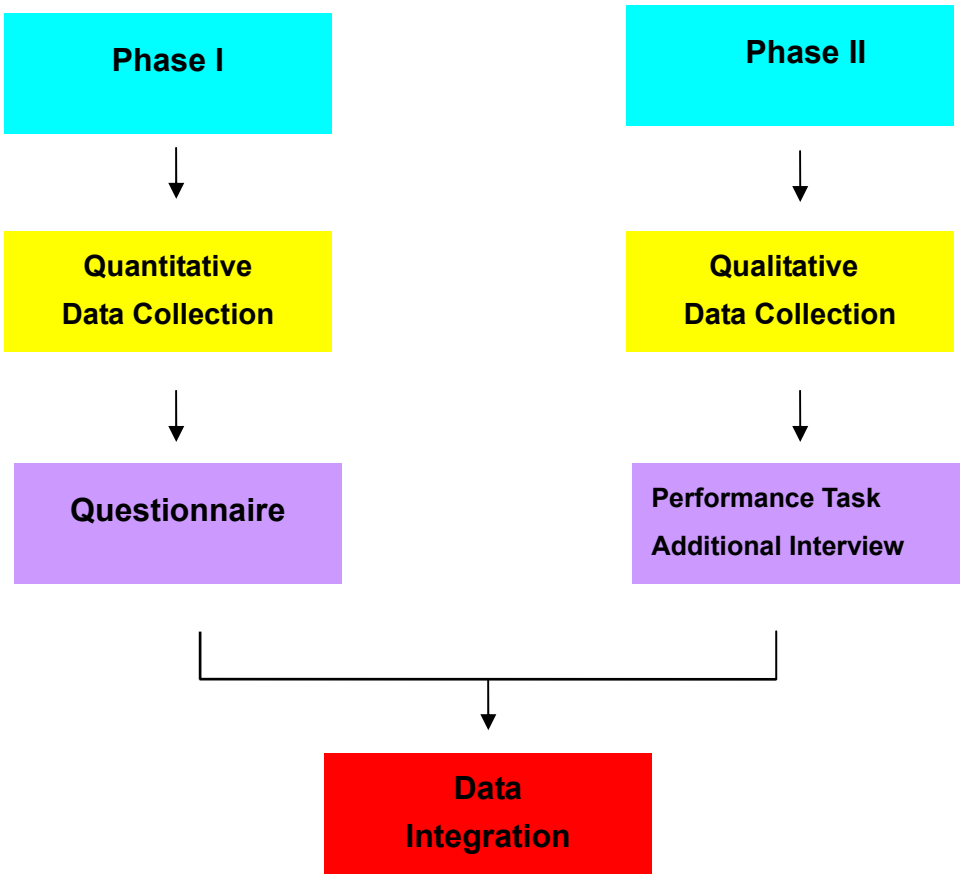
When planning this study for the first time, I set out to employ something similar to what Creswell (2003) calls a "sequential explanatory model," a type of mixed-method design in which quantitative data collection would be undertaken prior to qualitative data collection. With the priority being placed on the quantitative data (e.g., a questionnaire given to the whole sample), the qualitative data (e.g., the vocabulary performance task and interviews conducted with a subsample) were meant to explain and elucidate the quantitative data, thus deepening our understanding and interpretation of the results.

It was not until I collected the qualitative data from the vocabulary performance task and the interviews and started analyzing these data that I realized the unexpected richness of the qualitative side of the study. The momentum and significance of the qualitative side were undeniable. The qualitative findings were able to play more than just a complementary role in explaining and elucidating the quantitative results. In fact, the qualitative outcomes were abundantly rich in and of themselves. Although

the qualitative results were unexpected, I had to adjust to this dramatic turn by shifting from the explanatory model to the "triangulation model," which gives equal priority to both quantitative and qualitative data.

For the purpose of obtaining data that will enhance the knowledge of Taiwanese children's use of language learning strategies, I conducted a two-phased study. In Phase I, the *Taiwanese Children's Strategy Inventory for Language Learning* (otherwise known as *The Taiwanese Children's SILL*, Lan, 2004) was administered to 1,191 elementary school students in the higher elementary-school grades. Phase II involved both a vocabulary performance task and an additional student interview to obtain qualitative data. It was crucial to use the *Children's SILL* questionnaire in Phase I to develop the general profile of learning strategy use by the entire group of students, but the 12-student subsample involved in Phase II's vocabulary performance task and interview provided a different and equally important focus. Not until the stage of interpretation were both types of data integrated. Figure 3.1 shows the two phases of this study.

Figure 3.1 Two Phases of This Study



Educational Setting for This Study

English education was mandated starting in the fifth and the sixth grades by the Taiwan Ministry of Education in 2001. However, many schools, especially those in the metropolitan cities, actually teach English to all students from grade one to grade six. Students usually receive two 40-minute English classes each week. There is no placement according to students' English ability levels in most schools, including the participating schools. However, as mentioned previously, it is a general social practice

for parents to send their children to private English language schools both before and after they start their mandated English education in the elementary schools. The percentages of students attending private language schools are as high as 80.6% in Taipei, 71.5% in Taichung and 77.3% in Kaohsiung, as mentioned earlier. Most teachers teaching English have to be certified by the Ministry of Education in Taiwan or at least have taken some teacher education programs for English language teaching. It was intended that the study involve schools throughout the country. I had built contacts with some of the participating schools through conducting teacher development workshops in the past.

Methodology for Phase I

Phase I of the study involved administering the *Taiwanese Children's SILL* questionnaire to 1,191 fifth and sixth grade students. Below is the detailed methodology for Phase I.

Participants in Phase I

In order to reach the statistical power parameters and be able to generalize to the target population, which in this case is Taiwanese elementary school students learning English, the study included four groups of students (approximately 300 each) from six elementary schools located in northern, central, southern, and eastern regions of Taiwan. Table 3.1 below presents the structure of the sample for Phase I.

Table 3.1.

Regions, Students, and Schools in Phase I

Region of Taiwan	Number of students	Number of schools from which students will be selected	Comments
North	315	1	A suburban school located outside of the city
Central	306	1	A suburban school located outside of the city
South	279	1	A suburban school located outside of the city
East	291	3	Small-sized suburban schools outside of the city
Total	1,191	6	

I also just focused on the higher grades for the following two reasons. First, formal English education started in 2001, and therefore some students had only limited experiences in learning English. Focusing only on students in the higher elementary grades ensures that the students would have had formal English education for an extended period, with the majority in this study having at least three full years. Second, students in the higher elementary grades would be better able to talk about

their learning strategies than would students in the middle or lower elementary grades.

The selection of students was made based on the following criteria:

1. Age - Upper grade (fifth and sixth grades) elementary school students were targeted in this investigation.
2. Sex - Both male and female students were included and in a balanced ratio (613 boys and 578 girls).
3. Socioeconomic status - The investigation primarily focused on students from the middle socioeconomic level, which reflects the general population.
4. Geographic area - The study attempted to reflect the geographical areas of Taiwan, namely the north, central, south, and east, as noted earlier.

It is important to understand how geographic areas interact with socioeconomic status in Taiwan. Most of the participants from the schools in the northern and the central regions tend to have a similar, middle-class socioeconomic background. They are located on the outskirts of the metropolitan cities, i.e., the suburban areas. Students from the school in the south, however, belong mainly to the working class, with many parents working in the neighboring industrial area. Students from the schools of the east coast belong to middle and lower socioeconomic background. The schools are located in the more rural area compared to the other three geographical areas.

Instrumentation in Phase I

The original *Taiwanese Children's SILL* was translated into Mandarin from Gunning's Children's SILL (1996), which was in turn adapted from the high school and adult version of the SILL (Oxford, 1990). In all three SILL versions, each item describes one strategy. All items have five-point Likert-scale responses: 1 = never or almost never, 2 = usually not, 3 = sometimes, 4 = often, 5 = always or almost always. A verbatim example of a strategy item is as follows: I make a drawing, either in my head or on paper, to help me remember a new word.

The original *Taiwanese Children's SILL* (Lan, 2003) was used in a pilot study; (Lan & Oxford, 2003). To further refine this instrument as a valid and reliable research instrument, I formed the *Taiwanese Children's SILL* Review Committee in spring of 2004. The purpose of the Review Committee was to revise, add, and eliminate any strategy items in the *Taiwanese Children's SILL* so that the questionnaire would optimally measure the language learning strategies of young Taiwanese EFL learners in their specific learning contexts. The Mandarin-speaking members of the Review Committee were also expected to read the English version of the *Taiwanese Children's SILL* and the Mandarin version to check translation quality and make any suggestions. The nine expert committee members included:

- Dr. Rebecca Oxford - the author of the original *Strategy Inventory for Language Learning* (Oxford, 1990) and of many internationally refereed articles on language learning strategies.
- Ms. Pamela Gunning - the author of the *Children's Strategy Inventory for Language Learning* (Gunning, 1997) and of strategy instruction books and videos for use by teachers in Canada.
- Dr. Nae-Dong Yang - a Taiwanese researcher who has done much research on language learning strategies and published articles in internationally refereed journals.
- Dr. Tsung-Yuan Hsiao - a Taiwanese researcher and statistician who has also published articles on language learning strategies in internationally refereed journals.
- Mr. Michael Butler - an experienced English teacher who has spent more than ten years teaching English to children in Taiwan.
- Ms. Barbara Lin - an experienced teacher who has been teaching EFL in a Taiwanese elementary school for more than five years.
- Ms. Betty Huang - an experienced teacher who has been teaching EFL in both private language schools and public elementary schools for the past eight years in Taiwan. She also just received her master's degree in Children' English

Education at National Taipei Teachers' University.

- Ms. Stella Huang - an experienced teacher and teacher trainer in EFL elementary schools.
- Ms. Yardly Rong - an experienced teacher who has been teaching EFL in a Taiwanese elementary school for more than five years.

I contacted the members for reviewing, discussing and revising the strategy items based on a list of guiding questions (e.g., see Appendix B). The Review Committee supported the construct validity of the *Taiwanese Children's SILL* by carefully ensuring that the questionnaire effectively measured the construct of children's language learning strategies. The committee also verified the content validity of the questionnaire by checking (a) whether the questionnaire included an appropriate, representative sample of the set of all possible items measuring different types of children's language learning strategies and (b) whether the items were worded clearly and effectively enough in Mandarin to measure the chosen strategies. The committee suggested minor rewording of a few items; this rewording has recently been done. The Review Committee also critiqued the *Background Questionnaire* and added items as needed.

Throughout the pilot study, concurrent validity of the *Taiwanese Children's SILL* had already been supported through statistically significant relationships with

(a) degree of liking English, (b) level of English proficiency, and (c) gender (Lan, 2003; Lan & Oxford, 2003). These results had been anticipated based on both theory and prior empirical studies conducted by other researchers.

Reliability of the *Taiwanese Children's SILL* was also assessed in this dissertation study. Cronbach alpha was used to check reliability.

The *Taiwanese Children's SILL* was categorized into six parts: Part A, memory devices, primarily for vocabulary learning and not necessarily involving deep processing; Part B, cognitive strategies, which involve deep processing of information; Part C, compensation strategies, which make up for missing knowledge; Part D, metacognitive strategies, which involve planning and evaluating one's own learning; Part E, affective strategies, which students use to manage their emotions and motivation; and Part F, social strategies, which involve learning with others. The questionnaire was revised based on comments and feedback from the Review Committee, with special attention to issues of simplicity, comprehensibility, and contextual appropriateness.

A number of revisions were made in both the inventory and the background questionnaire based on feedback from the Review Committee and the previous pilot study. Certain items were replaced and others were separated into two items to make the ideas clearer to the students. Overall, the most important principles in analyzing

the questionnaire included (a) whether the items truly reflect the learning experiences of the Taiwanese elementary school students, (b) whether the meanings are comprehensible to the fifth and sixth grade students, (c) whether each item is placed appropriately based on Oxford's six-category taxonomy (1990) and (d) whether the inventory has the most appropriate format for young children at the elementary level. Revisions are delineated below.

Revisions in Part 1 of the Questionnaire (Memory Strategies)

Two items were taken out: *I associate the sound of a new English word with a sound or a word that I already know* and *I mime words to remember them*. These two items were deleted based on the feedback from students in the pilot study. Many students said that "acting out words" sounded "awkward and silly," and therefore they rarely did that. Four new items were added in Part 1. These items were: *I learn a new word in a sentence*; *I use flash cards to memorize new words*; *I memorize a new word by repeatedly writing it on paper;* and *I memorize a new word by repeatedly saying it out loud*. The first two items were included because they each represent very important strategies for vocabulary learning, particularly within the Communicative Language Teaching approach. The last two items were added because they generally reflect the memory strategies used by Taiwanese elementary school students, as

shown by the results of the pilot study as well as on feedback from the Review Committee.

Revisions in Part 2 of the Questionnaire (Cognitive Strategies)

One item, *I often repeat new expressions that I have learned,* seemed to be redundant with another item, *I review often,* and was therefore taken out. The item *I practice what I learn with my parents* seemed to be more like a social strategy and was therefore moved to Part 6. One item that expressed two strategies, *I read books in English or I work with English computer programs,* was broken into two items.

Revisions in Part 3 and Part 4 of the Questionnaire (Compensation Strategies and Metacognitive Strategies)

No items were revised here except for the wording in Chinese to make it more understandable to the students.

Revisions in Part 5 of the Questionnaire (Affective Strategies)

One of the Review Committee members pointed out that there were actually three different ideas embedded in an item on the *Taiwanese Children's SILL*. This item was a direct translation from the original *Children's SILL* by Gunning (1996). The item was *I am ready to take risks, guess the meaning of a word or a sentence, and*

try to speak English even if I make mistakes. Putting three ideas, e.g. *take risks, guess meaning,* and *try to speak English even if I make mistakes,* into one single item would confuse the students. Therefore, for the purpose of the this study, this item was changed to *I will try to speak English even if I am afraid I will make mistakes.*

Revisions in Part 6 of the Questionnaire (Social Strategies)

No items were replaced, but two were revised based on the suggestions of the Review Committee. The item *I work with my classmates to practice my English* was changed to *I practice English with my parents, siblings, or classmates.* The item *I am very interested in and willing to learn about the American culture* was changed to *I am very interested in and willing to learn about the cultures of English-speaking countries.* Reviewers also suggested adding specific examples of English speaking countries, such as America or England, so that students would better comprehend the meaning of the item.

In the newly revised *Taiwanese Children's SILL,* after input from the Review Committee, as in Gunning's *Children's SILL*, memory strategies (Part 1) included the following seven behaviors: *make links with what I already know, draw a picture in my head or on paper to remember a new word, learn a new word in a sentence, use flash cards to memorize words, review often, and memorize new words by repeatedly*

writing and *saying them out loud*. As mentioned earlier, memory strategies are designed to help the learner to create schemata (mental frameworks) that will allow new information, mainly vocabulary, to enter and remain in long-term memory.

Cognitive strategies (Part 2) encompassed these nine techniques: *try to imitate native speaker's accent, practice the sounds of the English alphabet, watch TV in English or listen to English tapes or CDs, read books in English, work with English computer programs, try to find occasions outside of school to practice English (cram schools, tutors), look for similarities in pronunciation between Chinese/Mandarin and English, try to understand the main idea of what I read or hear without translating word for word,* and *try to figure out rules of English grammar.* Cognitive strategies help learners process and use the language.

Compensation strategies (Part 3), intended to make up for missing knowledge, included the following four items: *guess the meaning of a new word based on the rest of the sentence, use gestures to express what I want to say, ask for help,* and *find a different way to say what I want to say (synonym, description, etc.).*

In the metacognitive strategy category (Part 4) were the following five behaviors: *organize my time so I can study English often (not just for a test), look for chances to practice English, listen closely to someone who talks to me in English, check my*

progress in English, and *analyze my mistakes and try not to make them again.* Metacognitive ("beyond the cognitive") strategies are aimed at planning, organizing, and evaluating learning.

Three strategies were included in the affective category (Part 5): *try to relax if I am anxious because of speaking English, try to speak English even if I make mistakes,* and *reward myself for succeeding.* Affective strategies help the learner manage emotions and motivation.

Finally, the social strategy category (Part 6) contained three items: *ask the speaker to speak more slowly, repeat, or clarify what was said, practice English with parent, siblings or classmates,* and *am interested in and willing to learn information relating to cultures in which English is the spoken language.* Social strategies involve learning with others or learning about societies where native speakers of the language live.

The original adult version of the *SILL* (Oxford, 1990), on which the *Children's SILL* and the *Taiwanese Children's SILL* were based, has strong reliability, with Cronbach alpha usually in the range of .89 to .98, depending on the setting and the type of respondents. As mentioned earlier, the reliability of the *Taiwanese Children's SILL* will be analyzed and reported later. Predictive and concurrent validity of the

adult *SILL* have been demonstrated in terms of statistically significant relationships with other measures of learning strategies and (as theory and empirical research have shown) with learning styles, motivation, proficiency, and other relevant variables.

Background Questionnaire

The purpose of the Background Questionnaire was to elicit students' personable information, such as gender, grade and parents' education. Additionally, it also asks for information regarding students' English learning experience, such as years of prior English learning, self-rated English proficiency, degree of liking English, and their favorite school subjects.

In response to the Review Committee's comments, several revisions were made to the *Background Questionnaire*. For example, father's and mother's educational background were added, for these variables are often important in regard to students' learning. Another major change was to add specific options from which to choose for the last two open-ended questions: *What are your favorite English class activities?* and *What are the most difficult things for you in learning English?* Most Review Committee members felt that it would be much better to spell out specific options from which students can choose and to also offer a blank line for them to write down the ones that are not listed.

Therefore, the final version of the *Background Questionnaire* attached at the end of the *Taiwanese Children's SILL* includes questions which generate information such as gender, grades, parents' educational background, years of learning English in the private English institutes, three favorite school subjects, degree of liking English, favorite English class activities, and difficulties faced when learning English.

Data Collection Procedures for Phase I

I contacted the principals of the desired schools first by phone and then by letter to obtain their consent for conducting the investigation in their schools (see Appendix C for the letter to the principal). This letter to the principal covered Phases I and II of the study. To better guarantee the support of the principals as well as the teachers of the student participants, I offered to the principals a one- to three-hour workshop to the teachers who are interested in learning more about language learning strategies. This offer was not only a friendly gesture but was also intended to help the teachers better understand the focus of the study.

Before Phase I data collection, I prepared guidelines (see Appendix D) for teachers who administered the *Taiwanese Children's SILL*. The guidelines included complete information about the purpose and benefits of the study, the protection of anonymity and confidentiality, and the steps involved. The purpose of the guidelines was to detail the specific steps teachers needed to take during the actual administering

of the questionnaire.

I also gained Institute Review Board (IRB) approval for this study. I also sought parental permission through the IRB's Parental Permission Form for the Questionnaire and assent from the students through the IRB's Student Assent Form for the Questionnaire. Both forms are discussed later in this chapter. After parental permission was gained, teachers explained to the students the purpose and the procedures of the questionnaire. Teachers assured students that my intention was to understand how they learned English. Teachers explained to the students that (a) answers they put down would not affect their grades or their teachers' impressions; (b) questionnaire results would represent groups rather than individuals; (c) I was not going to look at individual students' questionnaire results; and (d) student participants would eventually be helping teachers improve their English teaching and helping all Taiwanese students learn English more effectively. Students were encouraged to ask questions at any time during the process. Students whose parents had signed the Parental Permission Form took the *Taiwanese Children's SILL*. The whole process took about 25-30 minutes, including the teachers' explanation, the distributing and collecting of the questionnaire, and the actual time spent completing the questionnaire.

Data Analysis Procedures for Phase I

Data collected from the questionnaire was analyzed using the Statistical Package for Social Science (SPSS). Data analysis procedures for this phase of the study included calculating descriptive statistics, including means and standard deviations for the whole sample and for subgroups related to geographic area, gender, and other key variables (Newton & Rudestam, 1999).

Pearson correlations were used to identify the strength and the direction of the relationship between any two continuous variables (e.g., strategy use and prior years of English learning). Pearson correlations cannot be used when one of the two variables of interest is nominal (categorical), i.e., gender. (There are, however, various non-parametric correlation techniques corresponding to situations in which one of the variables of interest is nominal or ordinal.) As is known to most people in the field, correlation does not imply causality, but it does provide a picture of relationships.

Analysis of variance (ANOVA) was an analytic tool for Phase I. Although ANOVA, when first created, was applied in experimental studies to test the effects of the treatment condition as compared to the non-treatment condition on a dependent variable, the use of ANOVA expanded to nonexperimental studies, where it has been frequently used for many years (Johnson 2001; Kerlinger 1986). In both experimental and nonexperimental studies, ANOVA is used to identify significant differences

between group means when the independent variable(s) is/are nominal (categorical) and when the dependent variable is continuous. In *experimental* studies that use ANOVA, causality can be inferred when significance occurs (i.e., the independent variable can be said to significantly influence or affect the dependent variable in some way), unless there are some uncontrolled extraneous variables lurking in the background. However, in *nonexperimental* investigations that employ ANOVA, no causality can be imputed regardless of statistical significance (i.e., a significant relationship between the independent variable and the dependent variable does not mean causality). The use of ANOVA in nonexperimental studies is criticized when researchers mistakenly attribute causal relationships in such studies (Johnson, 2001). However, when researchers take pains to impute no causality, the use of ANOVA in nonexperimental designs is perfectly acceptable, according to top statisticians in the social and behavioral sciences (e.g., Johnson, 2001; Keppel & Zedeck, 1989; Kerlinger, 1986).

It is important to be very explicit about the appropriate uses of correlation and ANOVA in nonexperimental studies. Correlation and ANOVA are excellent for providing information about relationships, but they do this for different types of variables in combination. As noted earlier, correlation depicts the degree and direction of the relationship between two continuous variables. ANOVA, on the other hand,

tests the significance of relationships between a categorical independent variable (or more than one categorical independent variable) and a continuous dependent variable. Importantly, the main difference between correlation and the use of ANOVA in a nonexperimental study "is the scaling of the independent and/or dependent variable (and not the manipulation of the independent variable) . . . ." (Johnson, 2001, p. 4).

Another important statistical procedure employed in this study was a multiple regression analysis. According to Newton and Rudestam (1999), multiple regression is used for analyzing data in order to explore "the relationship between multiple continuously distributed independent variables and a single dependent variable" (p. 248). In the current study, I have used multiple regression to identify among all the eight independent variables the best predictors of learning strategy use by the target students.

Methodology for Phase II

Phase II involved vocabulary performance task and additional interviews with a subsample of students who had participated in Phase I. Below is the detailed methodology for Phase II.

Participants in Phase II

Phase II involved a vocabulary performance task and a student interview with a number of students who had participated in taking the questionnaires. The students

were randomly selected based on their proficiency level rated and determined by their English teacher according to the participants' performance and grades in the subject. Three students were randomly selected from each of the four geographical areas. Only one school was chosen from the three in the eastern region based on convenience and availability. Table 3.2 shows the selection of students for interviews.

Table 3.2

Number of Students Selected in the Four Geographical Areas

Geographic Areas	Number of students selected based on teacher-rated proficiency levels		
	High	Medium	Low
North	1	1	1
Central	1	1	1
South	1	1	1
East	1	1	1
Total number of students		12	

Instrumentation in Phase II

The Taiwanese *Children's SILL* from Phase I has already provided a general profile of upper elementary school students' strategy use in an EFL context. However, the vocabulary performance task and student interview from the Phase II subsample offered equally useful data of a different nature. Standardized interview protocols

were used for each student interview session, which would be approximately 50 minutes long. This period included (a) 10 minutes for vocabulary performance task training and practice, (b) 20 minutes of the actual vocabulary performance task and (c) 20 minutes for a semi-structured interview. Parental Permission Forms and Student Assent Forms gained the appropriate permissions and assents to conduct Phase II. More information on these forms is found later in this chapter.

Vocabulary Performance Task

I started out thinking that I was using a think-aloud as a way of eliciting students' strategy use for a vocabulary task. A "think-aloud" is a research technique designed for participants to "express their thoughts or strategies while they do a language task or soon thereafter" (Anderson & Vandergrift, 1996, p. 3).

It was not until later did I realize that it was actually a vocabulary performance task rather than a think-aloud that I had conducted with the 12 participants. By nature of the performance task, the students were asked to verbalize their thinking process either during or after they were engaged in the process of memorizing the eight vocabulary. It was basically not a true think-aloud because the students did not take initiatives in self-reporting what was going through their mind. Since the students had never had such an experience thinking out loud and reporting what strategies they were using throughout the process, I mainly asked questions during or after the

process such as “Are you done with the first word? Tell me how you memorized the word.” “Did you just look at the word or did you spell it silently in your mind?”

In the current study, the vocabulary performance task was chosen as the task for two reasons. First, based on more than 12 years’ teaching experience, I realized how important vocabulary learning is to most of the learners. Second, from my experience in conducting two language learning strategy and strategy instruction workshops, I knew that vocabulary tasks usually eliciting many different strategies employed by the learners.

I have also taken Cohen (1998)’s suggestions regarding using materials that fit the characteristics and the proficiency levels of the students as well as using task conditions that are close to authentic situations. Since each school used different textbooks from an approved list by the Ministry of Education, I decided to use the textbook used by the first school I encountered in the dissertation study. To my surprise, the first school (in central region) was using the *Go Superkids* series which I had involved in as a project coordinator for the adaptation form the original *Superkids* series. I flipped through the book that was to be used in next semester in the sixth grade by the current fifth grade students and randomly picked one unit for practice and another one for the actual vocabulary performance task (see Appendix E). The eight vocabulary words on the two pages in the textbook was used to elicit students’

thought process regarding which specific strategies they used to perform the task.

It was not until I started conducting the performance task with Frankie, the high-proficiency student, did I realize that the eight words from the textbook were simply too easy for an advanced learner like him. I immediately made a decision to come up with a list of words that were more difficult in terms of the length and the numbers of syllables of the words. I was indeed not prepared for such a situation. The list of more difficult vocabulary words was termed the "challenge words" list (see Appendix F) to be used by all the high-proficiency students in each school. As suggested by Oxford, Cho, Leung, and Kim (2004), I tried to match the task difficulty level, which in this case was most related to the difficulty of vocabulary words, with the students' language ability to best elicit the strategy use by the participants.

Besides the levels of difficulty, another main difference between the two lists of words was that the easier words came from a textbook which had pictures illustrating on the page and above the words, while the challenge words had no pictures. Such a difference might pose issues later in comparing the three proficiency levels. On the other hand, students at the level do read texts without pictures, so this in itself might be considered a replication of an authentic classroom reading task for high proficiency students.

Following the guidelines above, the performance task was conducted in

Mandarin due to the students' limited English proficiency. A training session was given prior to the actual vocabulary task, for none of the participants had had such an experience before. They were given some practice as a warm-up to get them ready for the formal process.

It is also crucial to point out that the current study's use of task-based strategy assessment complements the general *SILL* (or any other typical, no-language-task strategy assessment tool) and provides a highly detailed, contextualized picture of strategy use (Hsiao & Oxford, 2002) of a subsample.

Student Interviews

After the vocabulary performance task portion was complete, the 12 students participated in an additional interview conducted by me in a casual, relaxed atmosphere. The interview questions focused on the specific strategies they used to study as well as their habits and experience in learning English. (See Appendix G for the questions in the additional interview as well as the performance task procedures.) I had previous experience interviewing elementary school students for a project sponsored by the Education Bureau of Taipei City Government in 1998 and 1999 and therefore was confident about the interviewing process. In addition, I had experience interviewing students in a pilot study on language learning strategies (Lan & Oxford, 2003).

Data Collection Procedures for Phase II

Both the vocabulary performance task and the additional interviews were audio- and video-taped throughout the process. The audio tapes were later transcribed into English and the video tapes were used for later viewing for the purpose of observing students' physical response to the vocabulary performance task and interviews.

Data Analysis Procedures in Phase II

Vocabulary Performance Task

Data analysis for the vocabulary performance task was based on one of the coding categories suggested by Bogdan and Biklen (1998). "Strategy Codes" is a technique employed in qualitative research to code strategies i.e., "the tactics, methods, techniques, maneuvers, ploys, and other conscious ways people accomplish various things" (p.175). Such usage was self-explanatory, since the purpose of the performance task was, in fact, to identify and elicit the specific strategies students used to memorize the vocabulary.

Data collected from the vocabulary performance task (on audiotapes and videotapes) were transcribed and translated from Mandarin to English. All transcripts were entered into the computer. I paid special attention to the students' physical responses shown on the video tapes because what appeared to be a silent period on the audio tape was evidenced by the videotape for certain physical reactions related to the

strategy use. For example, some students simply stared at the vocabulary and did silent mouthing and others did not even move their mouths at all. One of the students (Alex) kept rolling his eyes without making a sound and a move while he was silently spelling out the words in his mind. (Such information would not have been revealed if I had not asked him directly.)

Each strategy use that was identified, whether with a physical action or not, was recorded in a table for each student. All the strategies were then labeled to be grouped into different categories. I also jotted down notes on the margins of the strategy table for each student to better categorize each strategy later. Thus was how the 35 strategies were put into six categories. For the purpose of calculating the frequency of strategy use, each strategy item was counted based on how many times it was used and how many students actually used it. For an example of a complete transcription and translation of the vocabulary performance task, please see Appendix H.

Additional Interview

Interview data were analyzed using a version of the grounded theory approach, in which multiple themes emerged through repeated readings of the data. This process created emergent categories rather than merely using *a priori* categories (Creswell, 2003). Again, I also wrote down notes and ideas on each student's transcripts in order to form specific themes at the final stage of the data analysis. For an example of a

complete transcripts of the interview, please see Appendix I.

Limitations to Methodology

This study presents the some limitations in terms of it methodological approach. First, I was the only person that has checked the translation of the qualitative data, i.e., the vocabulary performance task and the interview. Since the participants were fifth grade elementary school students, I was not really able to do "member checking". However, in the future a back translation by an experienced colleague should avoid such limitation.

Second, in order to accommodate to the different proficiency levels, I had to developed two different sets of contents for the vocabulary performance task, namely, the eight vocabulary from the textbook and that of the so called "challenge words." Some might think it is controversial in making comparisons between two groups by using different contents for the task. On the other hand others would agree that such limitation is hard to avoid if one has to attend to the different proficiency levels.

Information and Consent Forms for Phases I and II

All forms included the purpose, the procedures, the risks, the benefits, and the confidentiality involved in the study. They also stated that all participants were voluntarily involved in the study, could ask questions at any time, and could withdraw from the investigation at any time.

Phase I Forms

In Phase I, the Parental Permission Form for the Questionnaire was employed to obtain permission for the children to take the *Taiwanese Children's SILL.* This was necessary because all of the participants were children under the age of 18 years. The Student Assent form was used to ensure that students wanted to take the questionnaire. See Appendices J and K for the Parental Permission Form for the Questionnaire and Student Assent Form for the Questionnaire.

Phase II Forms

There were two forms for Phase II. For student interviews to occur, parents signed the Parental Permission Form for Student Interviews, and students signed the Student Assent Form for Student Interviews. See Appendices L and M for both of these forms.

Conclusion

This chapter provided a detailed description of the methodology employed in the two-phased study. The rational of choosing a mixed-method design was given and the shift from an explanatory model to a triangulation model was explained. Both quantitative and qualitative research methods were described. The results of Phase I will be reported in Chapter 4 and those of Phase II will follow in Chapter 5.

CHAPTER 4

RESULTS OF PHASE 1

Introduction

This chapter reports the results of Phase I of this study: quantitative results from the 31-item *Taiwanese Children's Strategy Inventory for Language Learning* (*Taiwanese Children's SILL*, Lan, 2003), adapted from the *Strategy Inventory for Language Learning* (*SILL*, Oxford, 1990) and the seven-item Background Questionnaire. The results will be presented based on the research questions that guide the current study. I will compare some of the results with my own pilot study as well as with a Canadian study which also explored the language learning strategies used by elementary school learners of English.

The factor-analytically-derived taxonomy of strategies developed by Oxford (1990) provides the basic framework for the six strategy categories in the *Taiwanese Children's SILL*. Based on results from the questionnaire, I will present the overall strategy use, strategy use for each of the six strategy categories and strategy use for key individual items. The following sections report the results according to each research question.

Question 1: What does the Background Questionnaire tell us about students' geographic area, gender, prior English learning experience, self-choice of English learning, proficiency

self-rating, degree of liking English, and their parents' educational background?

There are two parts in the Background Questionnaire. Part One includes students' information about their gender, school name, grade level, and father's and mother's educational background. Part Two consists of seven questions which focus on information about their English learning experience:

1. Years of prior English learning, if any
2. Self-choice of studying in a private English institute
3. Favorite subjects in school
4. English proficiency self-rating
5. Liking of English
6. Favorite English class activities
7. Most difficult parts of learning English.

The following sections report the results of each part for each question.

Geographical Background Information of the Participating Schools

In order to get a sample that would be as representative as possible in Taiwan, I decided to get about 300 students from each of the geographical areas including one school each from the north, the central and the south regions of Taiwan. Due to the small size of schools on the east coast, three schools were recruited. As Table 4.1 shows, the number of participants from each area is quite evenly distributed.

Table 4.1

Geographical Background Information of the Participants

Geographical areas	Frequency	Percent	Valid percent	Cumulative percent
North (School No.1)	315	26.4	26.4	26.4
Central (School No.2)	306	25.7	25.7	52.1
South (School No.3)	279	23.4	23.4	75.6
East (Schools No. 4, 5, 6)	291	24.4	24.4	100.0
Total	1191	100.0	100.0	

Parents' Educational Background

As indicated in Table 4.2, 65.5% of the participants' fathers graduated from high school or below, and 31.2% of the participants had fathers with a college degree. Only 3.3% of the participants reported that their fathers had graduate degrees. What is worth noticing here is that such information could be hard to obtain, since 11.1% of the students did not know the educational level of their fathers. A similar situation was also found for mothers' educational levels.

Table 4.2

Fathers' Educational Background

Educational levels	Frequency	Percent	Valid Percent	Cumulative percent
High School	694	58.3	65.5	65.5
College	330	27.7	31.2	96.7
Graduate school	35	2.9	3.3	100.0
Total	1059	88.9	100.0	
Missing System	132	11.1		
Total	1191	100.0		

Table 4.3 shows the mothers' educational background information of the students who participated in this study. The majority (72.6%) reported that their mothers graduated from high school or below while one fourth of the participants' mothers (25.4%) had a college degree. Only 2% of the sample indicated a graduate degree by their mothers. There seemed to be a parallel between the results from the findings on the fathers' educational background and those of the mothers' educational background.

Table 4.3

Mothers' Educational Background

Educational levels	Frequency	Percent	Valid percent	Cumulative percent
High school	770	64.7	72.6	72.6
College	270	22.7	25.4	98.0
Graduate school	21	1.8	2.0	100.0
Total	1061	89.1	100.0	
Missing system	130	10.9		
Total	1191	100.0		

Prior English Learning Experience

The Background Questionnaire asked students how long they had studied English. This specific question is one of my foci of interest because of the general Taiwanese social values placed on the importance of sending children to study in a private English language institute. According to the results shown in Table 4.4, more than 77% of the participants had studied English in a private English institute before and many of them actually were still studying there. It will be very useful for us to find out if such experiences had any significant relationship to students' language learning strategy use and their English achievement later in their academic careers. In Taiwan the high number of parents who enroll their children in private English institutes seems to indicate that they feel additional studies outside of school might guarantee the potential success of their children's English language learning.

Table 4.4
Prior English Learning Experience

Years of prior English learning	Frequency	Percent	Valid percent	Cumulative percent
Never	266	22.3	22.5	22.5
1-12 Months	239	20.1	20.2	42.7
1-3 Years	484	40.6	40.9	83.5
Over 3 years	195	16.4	16.5	100.0
Total	1184	99.4	100.0	
Missing data	7	.6		
Total	1191	100.0		

Self-Choice in Studying in Private English Institutes

When students were asked whether they would decide of their own will to go to a private institute to study English, approximately half (50.7%) said yes, while the rest (49.3) said no, as shown in Table 4.5. This reflects extreme student ambivalence over the value of studying in English private institute after regular school hours. This is a very interesting result, which, we will see later is related to the overall learning strategy use.

Table 4.5

Self Choice in Studying English in Private Institutes

Self-Choice of English learning	Frequency	Percent	Valid percent	Cumulative percent
No	578	48.5	49.3	49.3
Yes	595	50.0	50.7	99.9
Total	1173	98.5	.1	100.0
Missing data	18	1.5		
Total	1191	100.0		

Degree of liking of Learning English

The participants were asked to indicate their degree of liking or not liking English on a five-point scale. The results show that 43.3% of the students thought English was OK, i.e., they neither liked nor disliked learning English, while 18.3% said that they liked it and 36.8% said that they disliked it. In other words, slightly more than one third of the participants reported not liking English as shown in Table 4.6.

Table 4.6

Degree of Liking of Learning English

Degrees of liking English	Frequency	Percent	Valid percent	Cumulative percent
Like very much	125	10.5	10.7	10.7
Like	93	7.8	7.9	18.6
OK (neither like nor dislike)	516	43.3	44.0	62.6
Dislike	299	25.1	25.5	88.1
Dislike very much	139	11.7	11.9	100.0
Total	1172	98.4	100.0	
Missing data	19	1.6		
Total	1191	100.0		

Self-Rating of English Proficiency

One of the questions asked students to rate their general English proficiency on a three-point scale: (a) good or very good, (b) OK, or (c) poor. Table 4.7 revealed the self-rated proficiency levels. Three quarters (75%) rated their proficiency level as OK. About 10.8% believed that their English was poor and 14.2% reported that their English proficiency was quite good.

Table 4.7

Self-rating of English Proficiency Levels

English Proficiency	Frequency	Percent	Valid percent	Cumulative percent
Poor	128	10.7	10.8	10.8
OK	889	74.6	75.0	85.8
Good or very good	169	14.2	14.2	100.0
Total	1186	99.6	100.0	
Missing data	5	.4		
Total	1191	100.0		

Favorite Subjects in School

I was also interested in learning about where English would stand in relation to students' three favorite subjects in school. The results show that the participants as a whole reported a total of nine favorite school subjects, including Chinese, math, English, social studies, science, physical education, computers, art, music and health. Interestingly enough, physical education was ranked as their first choice for favorite subject by 35.1% of the participants with the highest mean score of 1.50. The second favorite subject was computers, with a mean of .83, followed by Chinese as a third, with a mean of .78. English, among all the subjects, was rated as the fourth favorite subject, with a mean score of .59. I will explore the reasons behind such findings in the discussion chapter. For detailed information, please see Table 4.8.

Table 4.8

Means & Ranking of the Favorite Subjects in the Descending Format

Subjects	Physical education	Computers	Chinese	English	Science	Music	Math	Social Studies	Art	Other	Health
Mean	1.50	.83	.78	.59	.53	.51	.45	.33	.30	.10	.04
First favorite subject	35.1%	11.5%	14.3%	8.2%	7.7%	7.1%	5.7%	4.3%	4.5%	1.1%	0.0%
Second favorite subject	16.9%	18.4%	12.1%	10.5%	9.6%	9.5%	8.7%	5.8%	5.4%	1.5%	1.0%
Third favorite subject	11.2%	11.9%	11.4%	13.0%	10.7%	10.4%	10.7%	9.0%	5.2%	3.7%	1.8%

Most Popular English Class Activities

It was also important to find out about the kinds of class activities most often conducted by the teachers, and the students' response to such activities. After all, teaching and learning are like two sides of a coin, and classroom activities play a key role in understanding how teaching and learning occur. Table 4.9 provides the means and the ranking of each activity.

Table 4.9

Means and Ranking of Favorite Class Activities in Descending Order.

Activity	Game	Compe-tition	Quiz	Reading	Listening	Songs chants	Video	Conver-sation	Wri-ting	Pronun-ciation
Mean	4.04	2.49	1.29	1.21	1.18	1.15	1.11	1.03	.89	.65
Rank 1	64.2%	8.7%	5.7%	2.7%	4.2%	3.5%	5.2%	3.0%	1.5%	2.0%
Rank 2	16.3%	39.3%	5.0%	8.6%	5.9%	5.8%	7.3%	5.2%	3.4%	3.2%
Rank 3	4.1%	11.9%	12.2%	12.5%	13.9%	12.2%	11.9%	11.6%	5.3%	5.4%
Rank 4	2.0%	4.7%	10.4%	12.8%	10.1%	13.7%	6.3%	10.9%	20.4%	7.9%
Rank 5	1.9%	3.6%	23.2%	9.7%	11.0%	10.2%	7.0%	10.8%	11.4%	9.7%

The participants were asked to choose from a list of English class activities and rank them from the most (1) to the least (5) favorite. The data were later recoded, reversing the numbers from most (5) to the least (1). According to the results, games had the highest mean score of 4.04 and were ranked as the most popular activity by

64.2% of participants. Competition (mean = 2.49) was ranked by 39.3% of the students as their second favorite class activity. The following three activities, ranked as number 3, 4, and 5 in popularity, were quizzes (mean = 1.29), reading (mean = 1.21) and listening (mean = 1.18). Pronunciation, (mean = .65) writing (mean = .89) and conversation (mean = 1.03) were the least popular activities. It was no surprise to see that children enjoy learning through games. It was also not unexpected that the "productive " skills – pronunciation, writing and conversation - were among the least favorite, because productive skills are considered to be difficult for many or most students, especially those learning a language that is distant from the native language family. I will tie this in with many issues of English teaching and learning in Taiwan later in the discussion chapter.

Most Difficult Challenges in Learning English

To better understand the challenges faced by these elementary school students in their process of learning English, I asked the participants to choose five from a list of difficulties and again rank them from the most to the least difficult. Table 4.10 shows the results of this question.

Table 4.10

Means and Ranking of Difficulties of Learning English in Descending Order

Difficulties	Grammar	Vocabulary	Conver-sation	Listening	Reading	Pronun-ciation	Practice
Mean	2.92	2.60	2.39	1.97	1.97	1.96	1.17
Rank 1	34.7%	19.8%	10.7%	9.0%	7.7%	13.9%	3.6%
Rank 2	17.4%	18.8%	20.4%	10.9%	15.7%	11.4%	5.5%
Rank 3	8.0%	13.4%	19.7%	22.0%	15.2%	12.6%	9.4%
Rank 4	39.8%	13.5%	16.6%	12.2%	17.2%	14.4%	15.4%
Rank 5	29.8%	18.4%	11.2%	18.2%	14.9%	14.8%	17.9%

It is not enough to know that young learners have to deal with many difficulties in learning English. The key is to find out exactly what is the most challenging aspect to the students. Based on the results here, grammar was ranked by 34.7% of the participants as the most challenging aspect of learning English (mean = 2.92) followed by vocabulary (mean = 2.60), and conversation (mean = 2.39).

Pronunciation, listening, and reading had almost identical means (1.96, 1.97, and 1.97), but they differed in the percentages of students ranking them as the greatest challenge: 13.9%, 9.0%, and 7.7%, respectively. These results will be helpful in shedding more light on the results from the vocabulary task findings regarding the different strategies employed on the vocabulary task: see the discussion chapter.

Question 2: For the entire group of students, what is the total strategy-use mean (i.e., the overall mean frequency on the entire Taiwanese Children's SILL)?

In reporting frequency of use of learning strategies, Oxford's (1990) key was employed to understand mean scores on the *Taiwanese Children's SILL,* which has a scale range of 1-5, like that of the original *SILL*:

- HIGH USE = 3.5 to 4.4 (usually used) and 4.5 to 5.0 (almost always or always used)
- MEDIUM USE = 2.5 to 3.4 (sometimes used)
- LOW USE = 1.0-1.4 (never or almost never used) and 1.5 to 2.4 (usually not used)

According to the results, the elementary school students participating in this study had a mean (2.9) of overall strategy use on the 5-point Likert scale. This figure was identical with the strategy use mean of 2.9 in the pilot study conducted by me and recently published as a joint article (Lan & Oxford, 2003).

As Table 4.11 shows, 22.9% of the participants reported high strategy use (usually, almost always, or always used) while more than half (53.2%) reported a

medium range (sometimes used) of use, leaving 24% in the low use range (never or almost never used).

Table 4.11

Frequency and Percentage of Students Showing High, Medium and Low Strategy Use.

Strategy Use	Frequency	Percent	Valid percent	Cumulative percent
High	252	21.2	22.9	22.9
Medium	586	49.2	53.2	77.1
Low	264	22.2	24.0	100.0
Total	1102	92.5	100	
Partial data	89	7.5		
Total	1191	100.0		

Question 3: For the entire group of students, what are the strategy-use means for each of the strategy categories?

In the entire sample, the mean score for each of the six categories fell in the range of medium strategy use, but the means were not identical. Strategies in the affective category were the most frequently used, with a mean of 3.2. Strategies in the compensation and social categories had identical means of use at 3.1. The mean use of strategies in the metacognitive category was 3.0. Strategies in the memory and cognitive categories were employed often, with identical means of 2.8. Means and standard deviations for each strategy category are shown in Table 4.12.

There is not much difference in the mean scores of strategy use among the six categories. However, for this group of students, it was affective strategies that were used slightly more frequently than the other categories, though the difference has little practical significance. Affective strategies help students to cope with the emotional or motivational difficulties when learning English. A similar result was also found in the pilot study.

Table 4.12
Means and Standard Deviations Indicating Strategy Use of the Whole Sample (Overall and on Each of the Strategy Categories)

Strategy category	Frequency of strategy use	
(most used to least used)	Mean	Standard deviation
Affective	3.2	.99
Compensation	3.1	.86
Social	3.1	.98
Metacognitive	3.0	.93
Cognitive	2.8	.80
Memory	2.8	.76
Overall total	2.9	.71

Question 4: How do these overall EFL results compare to those found in other learning strategy studies involving elementary school children?

It is interesting to compare the use of strategy categories between the current EFL study with the pilot EFL study and the Canadian ESL study by Gunning (1997).

As show in Table 4.13, the current study and the pilot study were identical in terms of the mean scores of the overall strategy use (both at 2.9) and the frequency of use of the six categories, which all fell in the medium-use range.

However, for the Canadian ESL group, there were three strategy categories that fell in the high-use range, among which compensation strategies reached a very high mean score of 4.7. Such high use indicated the fact that students very often used strategies to compensate for the lack of linguistic knowledge in order to cope with the communicative challenges. The ESL context, compared with the EFL context, might provide more opportunities to stimulate and demand a higher need for strategy use (Green & Oxford, 1995; Kojic-Sabo & Lightbown, 1999) In contrast, students learning in an EFL context are limited in the exposure they have to English, both in terms of time and opportunity. There is also a lack of immediacy for the purpose of communicating using English.

Table 4.13

Comparison Among EFL Students' Overall Mean Results (Pilot Study and Current Study) and ESL Student's Overall Mean Results (Canadian Study)

Study	Lan 2004		Lan & Oxford 2003		Gunning 1997	
	Current study		Pilot study		Canadian study	
Location of study	Taiwan		Taiwan		Canada	
Context	EFL		EFL		ESL	
Instrumentation	Questionniare, vocabulary performance task, student interview		Questionnaire		Questionnaire, student interview	
Participants	1191 fifth and sixth-graders		379 sixth-graders		102 fifth-graders	
Native language	Mandarin Chinese		Mandarin Chinese		French	
Gender	613 boys, 578 girls		202 boys, 177girls		Approximately equal number by gender	
Prior English learning	77.5% have attended private English institute		Some had attended private English institute		One hour of English per week in Grade 4	
Strategy use by category	Category mean	Interpretation	Category mean	Interpretation	Category mean	Interpretation
Memory	2.8	Medium use	2.7	Lower end of medium use	3.1	Medium use
Cognitive	2.8	Medium use	2.9	Medium use	3.1	Medium use
Compensation	3.1	Medium use	3.2	Medium use	4.7	Very high use
Metacognitive	3.0	Medium use	2.9	Medium use	3.5	Lower end of high use
Affective	3.2	Medium use	3.2	Medium use	3.8	High use
Social	3.1	Medium use	2.8	Medium use	3.1	Medium
Overall strategy use	2.9	Medium use	2.9	Medium use	3.5	Lower end of high use

Question 5: For the entire group of students, what are the five most and the five least used strategies?

The Five Most Frequently Used Strategy Items

I identified the five strategies most frequently used by the young Taiwanese EFL learners. As shown in Table 4.14, four out of the five strategies fell at the lower end of the high-use range, but they were all rather close together (3.3-3.7). The strategies covered asking for help, asking for slower tempo/repetition/clarification, analyzing errors, noting progress, and trying to relax.

The most interesting finding here is the two metacognitive strategies employed often by the learners in the current study: noting progress in learning English and analyzing errors to avoid making the same errors again. This strong sense of not repeating the same mistakes comes from two long traditions in Taiwan, the exam-oriented English language education system and the Grammar Translation Approach. These traditions have dominated the teaching and learning of English in Taiwan for many decades. What is interesting is that metacognition is not usually a point of awareness for most learners because the entire education system does not really promote initiative-taking, self-direction or self-regulation on the part of the students in learning as a whole. More will be discussed in the final chapter.

Table 4.14

The Five Most Frequently Used Strategies in the Current Study

Strategy no.	Strategy	Mean	Strategy category	Comment
19	When I don't know a word in English, I ask for help.	3.7	Compensation	lower end of high-use range
29	I ask people to slow down, repeat, or clarify what was said.	3.7	Social	lower end of high-use range
25	I analyze the errors I made and try not to repeat them.	3.4	Metacognitive	lower end of high-use range
24	I am concerned about the progress I have made.	3.4	Metacognitive	lower end of high-use range
26	Whenever I am stressed by the idea of speaking English, I try to relax.	3.3	Affective	medium-use range

The Five Least Frequently Used Strategy Items

In a similar vein, I also identified the five least frequently used strategies: (a) reading books in English, (b) using flash cards to memorize new words, (c) learning new words in sentences, (d) working with English computer programs, and (e) organizing time to study English. All of these five strategies fell toward the bottom of the medium-use range, with mean scores of 2.5 and 2.6. Two of these were involved in memory strategies for learning new words, which was not much of a surprise since vocabulary learning for many learners in Taiwan still follows the more traditional rote memorization pattern that involves many mnemonic techniques. Table 4.15 shows the list of the five least frequently used strategies by the participants.

Table 4.15

The Five Least Frequently Used Strategies in the Current Study.

Strategy no.	Strategy	Mean	Strategy category	Comment
11	I read books in English	2.5	Cognitive	lower end of medium-use range
4	I use flash cards to memorize new words.	2.5	Memory	lower end of medium-use range
3	I learn new words in sentences.	2.5	Memory	lower end of medium-use range
12	I work with English computer programs.	2.6	Cognitive	medium-use range
21	I organize my time to study English	2.6	Metacognitve	medium-use range

Table 4.16
Comparison of the Five Most Frequently Used Strategies Between the Current Study and the Pilot Study

Current Study (Lan, 2004)				Pilot Study (Lan, Oxford, 2003)			
Strategy no.	Strategy	Mean	Strategy category	Strategy no.	Strategy	Mean	Strategy category
19	When I don't know a word in English, I ask for help.	3.7	Compensation	18	When I don't know a word in English, I ask for help.	3.5	Compensation
29	I ask people to slow down, repeat, or clarify what was said.	3.7	Social	28	I ask people to slow down, repeat, or clarify what was said.	3.5	Social
25	I analyze the errors I made and try not to repeat them.	3.4	Metacognitive	16	When I hear a new word in English, I try to guess the meaning by looking at the rest of the sentence	3.4	Compensation
24	I am concerned about the progress I have made	3.4	Metacognitive	25	Whenever I am stressed by the idea of speaking English, I try to relax.	3.3	Affective
26	Whenever I am stressed by the idea of speaking English, I try to relax.	3.3	Affective	19	When I can't find an expression in English, I try to find another way to say what I mean	3.2	Compensation

Table 4.17

Comparison of the Five Least Frequently Used Strategies Between the Current Study and the Pilot Study

Current Study (Lan, 2004)				Pilot Study (Lan, Oxford, 2003)			
Strategy no.	Strategy	Mean	Strategy category	Strategy no.	Strategy	Mean	Strategy category
11	I read books in English.	2.5	Cognitive	4	I mime words to remember them.	2.1	Memory
4	I use flash cards to memorize new words.	2.5	Memory	29	I work with classmates to practice English.	2.5	Social
3	I learn new words in sentences.	2.5	Memory	2	I make a drawing either in my head or on paper, to help me remember a new word.	2.5	Memory
12	I work with English computer programs.	2.6	Cognitive	30	I am interested in and willing to learn information about American culture.	2.6	Social
21	I organize my time to study English.	2.6	Metacognitive	21	I look for occasions to speak English.	2.6	Metacognitive

Question 6: Are there significant relationships among the following variables: strategy use (total use and use by strategy category), geographic area, gender, parents' educational background, prior English learning experience, self-choice of English learning, proficiency self-rating and degree of liking English?

In order to answer this research question, several statistical methods were employed to analyze the data at hand. The following section will report the results based on statistics, including Pearson correlation, multivariate multiple regression and analysis of variance.

Pearson Correlation

Pearson correlation was used to identify the strength and the direction of the relationship between the frequency of strategy use and the continuous independent variables (all except gender and geographical area). Such correlation does not imply any causality. It is only able to provide information regarding the direction of the relationship (whether positive or negative) and how strong that relationship can be.

Correlations between overall strategy use and the six independent variables

According to Table 4.18, the students' overall strategy use was positively correlated with each of the continuous independent variables at the $p<.01$ level. Based on the results, the participants' overall strategy use was mildly and positively correlated with their degree of liking English (.57), their self-rated English

proficiency (.42) and their self-choice of studying English at a private English institute (.40). In other words, generally speaking, students who used more strategies were those who liked English more, rated themselves higher in terms of their English proficiency, and would choose to study at the private English schools if they were given the choice. There were also positive but low correlations found between strategy use and prior English learning (.27), showing that some students who had studied English longer used more strategies for learning English.

Correlations between Strategy Use Frequency by Each of the Six Categories and the Five Independent Variables

Among all correlations between the frequency of strategy use in the six categories and the five independent variables, the largest ones were found between metacognitive strategies and liking English (.55) and cognitive strategies and liking English (.54). Such results yield to the fact that students who liked to study English better tended to use more cognitive and metacognitive strategies. The same also holds true between social strategies and liking English (.47), memory strategies and liking English (.47), and cognitive strategies and proficiency self-rating (.42). In addition, correlations were also found between the strategy categories and the following three independent variables: liking of English, proficiency self-rating, and self-choice of English learning at the above the .30 level. For example, self-choice of English

learning and cognitive strategies (.39); liking English and affective strategies (.39); self-choice of English learning and metacognitive strategies (.37); proficiency self-rating and metacognitive strategies (.37); Self- choice of English learning and memory strategies (.33); proficiency self-rating and compensation strategies (.33); self-choice of English learning and social strategies (.33); proficiency self-rating and social strategies (.32); proficiency self-rating and memory strategies (.31); and liking English and compensation strategies (.31) In other words, those who liked English more used more affective and compensation strategies. Those who rated their English proficiency higher used more metacognitive, compensation, social and memory strategies. Furthermore, students who would choose to study English at a private English schools used more cognitive, metacognitive, memory, and social strategies.

It is obvious that liking of English, student's proficiency self-rating, and their self-choice of English learning were related to more frequency use of strategies in all six categories with a Pearson correlation at above .30 level. Though positive, correlations were low between the six strategy categories and fathers' education, mothers' education, and prior English learning by the student.

Table 4.18

Correlations Between Strategy Use and the Six Continuous Independent Variables

	Father education	Mother education	Prior English learning	Proficiency-self-rating	Self-choice of English learning	Liking of English
	Pearson Correlation	Pearson Correlation	Pearson Correlation	Pearson Correlation	Pearson Correlation	Pearson Correlation
	Sig. (2-tailed)	Sig. (2-tailed)	Sig. (2-tailed)	Sig. (2-tailed)	Sig. (2-tailed)	Sig. (2-tailed)
Total strategy	.18**	.15**	.27**	.42**	.40**	.57**
mean score	.000	.000	.000	.000	.000	.000
Memory	.12**	.11**	.18**	.31**	.33**	.47**
strategies	.000	.000	.000	.000	.000	.000
Cognitive	.19**	.18**	.30**	.42**	.39**	.54**
strategies	.000	.000	.000	.000	.000	.000
Compensation	.16**	.13**	.22**	.33**	.26**	.31**
strategies	.000	.000	.000	.000	.000	.000
Metacognitive	.14**	.100**	.21**	.37**	.37**	.550**
strategies	.000	.001	.000	.000	.000	.000
Affective	.08**	.02	.15**	.27**	.23**	.39**
strategies	.009	.513	.000	.000	.000	.000
Social	.14**	.13**	.20**	.32**	.33**	.47**
strategies	.000	.000	.000	.000	.000	.000

** Correlation is significant at the 0.01 level (2-tailed)

* Correlation is significant at the 0.05 level (2-tailed)

Correlations Among the Five Independent Variables

According to the results, many variables are correlated with each other. The largest correlations were found between father education and mother education (.60), liking English and proficiency self-rating (.46), liking English and self choice of English learning (.43), and prior English learning and proficiency self-rating (.37). In other words, when students‘ fathers had higher education, so did their mothers. Those who liked English more were also those who self-rated their English proficiency higher and would choose to study English at a private school. These results will provide further information later in the multiple regression and the ANOVA tests.

Table 4.19

Correlations Among the Independent Variables

	Father education	Mother education	Prior English learning	Proficiency-self-rating	Self-choice of English learning	Liking of English
	Pearson Correlation Sig. (2-tailed)	Pearson Correlation Sig. (2-tailed)	Pearson Correlation Sig. (2-tailed)	Pearson Correlation Sig. (2-tailed)	Pearson Correlation Sig. (2-tailed)	Pearson Correlation Sig. (2-tailed)
Father education	__	.60** .000	.18** .000	.17** .000	.07** .000	.07* .000
Mother education	.60** .000	__	.12** .000	.13** .000	.08** .000	.09** .000
Prior English learning	.18** .000	.12** .000	__	.37** .000	.14** .000	.21** .000
Proficiency self-rating	.17** .000	.13** .000	.37** .000	__	.26** .000	.42** .000
Self-choice of English learning	.07** .000	.08** .000	.14** .000	.26** .000	__	.46** .000
Liking of English	.07* .000	.09** .000	.21** .000	.46** .000	.42** .000	__

** Correlation is significant at the 0.01 level (2-tailed)

* Correlation is significant at the 0.05 level (2-tailed)

Multivariate Multiple Regression

The purpose of running a multivariate multiple regression is to see among all the eight independent variables, which one(s) might turn out to be the best predictor(s) of participants' overall strategy use and strategy use by the six categories. The stepwise regression was selected based on criteria given by Cohen and Cohen (1983, in Newton and Rudestam, 1999) regarding when the method should be used: (a) when the research goal is prediction, and (b) when the sample size is large with a ratio of at least 40:1 for subjects to predictor variables, Table 4.21 reveals the results of the multiple regression. Standardized regression coefficients, i.e., beta weights are used based on the fact that the eight independent variables reply on different measurement scales. Using beta weights provides a comparison of the individual predictor variables within an equation. According to Kerlinger and Pedhazur (1982), "beta is sample-specific and can therefore not be used for the purpose of generalizations across settings and populations" (p.248) The interpretation of beta weights refers to the "expected change in the dependent variable, expressed in standardized scores, associated with a change of one standard deviation in an independent variable, while holding the remaining independent variable s constant." (Newton &rudestam, 1999, p.68).

Prediction of Overall Strategy Use

For the multiple regression analysis, all the eight independent variables were entered simultaneously. Based on Table 4.20, a model emerged for all independent variables with an R square of .40, which accounts for explaining about 40% of the variance of students' total strategy use.

Table 4.20

Model Summary for Regression of Total Strategy Use on All Independent Variables

Model	R	R Square	Adjusted R Square	Std Error of the Estimate
1	.63[a]	.40	.40	.54

Note. Predictors: (Constant), Liking of learning English, Father Ed, Geographical areas, Gender, Prior Learning, Self-Choice of studying English, Self-rated English proficiency, Mother Ed.

According to Table 4.21, beta weights for each independent variable indicate that liking of learning English bears the largest of amount of change of variance (.42) for the overall strategy use by the students. In other words, liking of learning English was identified to be the best predictor variable among all eight independent variables. Next to liking of English, self-choice of English learning and proficiency self-rating were also found to predict students' overall strategy use at a significant level although the percentages of variance explained were low (16.3% and 14.2% respectively). Neither education of mother nor geographical area was found to play a significant role in explaining the variance of the overall strategy use. We already learned from the

Pearson correlation results that mother education was correlated with father education (.60) and that might be the reason why it was excluded from the final model. The fact that geographical area was not significantly correlated with strategy use is the reason for its exclusion from the final model.

Table 4.21
Standardized Regression Coefficients from Regression Analyses Predicting Strategy Use from Eight Independent Variables

	Overall strategy use	Memory strategies use	Cognitive strategies use	Compensation strategies use	Metacognitive strategies use	Affective strategies use	Social strategies use
Liking of English	.42*	.35*	.38*	.13*	.44*	.32*	.35*
Proficiency self-rating	.14*	.08*	.14*	.18*	.10*	.10*	.10*
Self choice of English learning	.16*	.13*	.17*	.12*	.14*	.04	.14*
Father education	.09*	.04	.04*	.08*	.09*	.07*	.07*
Prior English learning	.06*	.03	.09*	.08*	.01	.02	.05
Gender	.06*	.05	.04	.08*	.05	.01	.09*
Mother education	.02	.03	.06	.03	-.01	-.07*	.04
Geographical area	-.05	-.03	-.07*	.00	-.08	.04	-.04

Note. * $p<.05$.

Prediction of Strategy Use by Each of the Six Strategy Categories

The regression results also revealed a similar pattern of the predictive power of the eight independent variables on the six strategy categories. Similarly, liking of English was accountable for a 44% of variance change of students' use of metacognitive strategies. The same holds for its accountability for cognitive strategies (38.3%), memory and social strategies (both for 39%) and affective strategies (32%). Nonetheless, liking of English was only able to explain 12.9% of the variance of the students use of compensation strategies. According to Table 4.20, the next best predictor was students' proficiency self-rating which significantly predicted students' use of all six strategy categories, but the regression coefficients were low (between 8% to 14%). Not much prediction was found in students' self-choice of English learning, father education, prior learning and gender as they were only able to account for a small amount of variance of the strategy use of the six categories. Again, mother education and geographical area failed to playing a significant role in predicting the strategy use in almost all six categories as was already indicated in the Pearson correlations.

Analysis of Variance

The purpose of conducting the analysis of variance (ANOVA) is to identify any existence of statistically significant effects of the independent variables on the

students' strategy use. The seven dependent variables include the overall strategy use and the strategy use of each of the six strategy categories. All of the eight independent variables were tested using one-way ANOVA. However, in order to adjust to the number of tests employed here, Bonferroni correction was used to avoid the type one errors. Since there are seven dependent variables and eight independent variables, it means that there will be a total of 56 tests needed. After the Bonferroni correction, the newly required significance level is $p<.001$. This is derive as follows using Bonderroni's correction:

$p<.05$ = the initial significance level
$.05/56=.001$ = initial significance level adjusted by 56 tests

According to Table 4.22, all independent variables were found to have statistically significant effects ($p<.000$) on the participants' overall strategy use except for geographical area. For the strategy use of the six categories, geographical area was again the only variable that did not bear any significant effects. Six independent variables revealed significant influence on the use of the six strategy categories, namely, liking of English, proficiency self-rating, self choice of English learning, father education, prior English learning, and gender. The only exception was father education that failed to bear any influence on students' affective strategy use. Mother education was also found to have effects on four strategy categories, excluding

metacognitive and affective strategies.

Table 4.22

Summary of Significant Findings from the Separate One-way Analyses of Variance on Strategy Use

	Overall strategy use	Memory strategies use	Cognitive strategies use	Compensation strategies use	Metacognitive strategies use	Affective strategies use	Social strategies use
Liking of English	.000	.000	.000	.000	.000	.000	.000
Proficiency self-rating	.000	.000	.000	.000	.000	.000	.000
Self-choice of English learning	.000	.000	.000	.000	.000	.000	.000
Father education	.000	.000	.000	.000	.000	.023	.000
Prior English learning	.000	.000	.000	.000	.000	.000	.000
Gender	.000	.000	.000	.000	.000	.000	.000
Mother education	.000	.001	.000	.000	.004	.794	.000
Geographical area	.681	.602	.241	403	756	445	639

*p<.001 after Bonferroni correction based on p<.005

Reliability of the Taiwanese Children's SILL

According to SPSS Cronbach's alpha results, the internal reliability coefficient in the *Taiwanese Children's SILL* for a total of 31 items was .92 which was very high. In other words, the questionnaire was proven to be a reliable instrument in investigating children's language learning strategy use.

Conclusion

The quantitative results of the *Taiwanese Children's SILL* reported in this chapter indicated the several major findings in terms leading to a general profile of the language learning strategies used by fifth and sixth grade students in Taiwanese elementary school. This chapter also presented results concerning the students' background information and several aspects of their English learning experience. These key findings will be presented and further discussed in the final chapter.

CHAPTER 5

RESULTS OF PHASE II

Introduction

This chapter reports the results of Phase II in this study. Results include the qualitative data gathered from both vocabulary performance task and interviews conducted with 12 fifth grade elementary school students who had previously taken the *Taiwanese Children's Strategy Inventory for Language Learning (Taiwanese Children's SILL,* Appendix A*)* in Phase I. Phase II allows me to use the "camera function" to focus on specific faces rather than taking a panoramic view of the whole sample. The results will be presented in the format of student profiles based on the individual interviews along with some key data from the questionnaire. Table 5.1 provides the basic background information of the participants in Phase II. According to Table 5.1, the proficiency level of each student was previously determined by their classroom English teacher based on their evaluation of the student's performance in class and in their final grade. For the performance task, the low- and medium-proficient students were given eight words with pictures that appeared in two pages of an English textbook (see Appendix F). Theses eight words were ZOO, PLAYGROUND, BEACH, PARK, RAINCOAT, SWEATER, SHORTS and PANTS. The high-proficient students were given a list of eight challenge words without

pictures on a piece of paper. These eight words were QUESTIONNAIRE, STRATEGY, PERFORMANCE, SELECT, PERSONALITY, EXTRAORDINARY, RESPECT, and EVALUATION (see Appendix G). Students were asked to write down the eight words they had memorized as I recited the words in Chinese.

Table 5.1

Background Information of the 12 Participants.

ID No.	Pseudo-nyms	Gender	Grade	Geographical area	Proficiency level assigned by English teachers	Years of studying English in current school	Years of studying English in private school
101	Alex	Male	5	North	Low	3	None
102	Billy	Male	5	North	Medium	3	None
103	Charlie	Male	5	North	High	3	4
201	Daisy	Female	5	Central	Low	3	None
202	Eddie	Male	5	Central	Medium	3	1
203	Frankie	Male	5	Central	High	3	8
301	Gabi	Female	5	South	Low	3	1
302	Henry	Male	5	South	Medium	3	3
303	Ivy	Female	5	South	High	3	6
401	Jenny	Female	5	East	Low	5	None
402	Kelly	Female	5	East	Medium	5	None
403	Larry	Male	5	East	High	5	5

This chapter first outlines the profiles of twelve students. Then I synthesize the results by reporting the significant themes that have emerged from the data for these 12 students. A final summary of qualitative results in Phase II concludes this chapter.

Profiles of Twelve Students

Alex – Northern Region, Low Proficiency

The main themes resulting from the quantitative and qualitative data for Alex included lack of interest in learning English, parents' passive attitude toward his English learning, lack of sound-letter relationships, and a limited number of strategies. The following is an excerpt from the performance task:

> Interviewer: *Could you tell me how you memorized it?*
> Alex: *Repeating the spelling.*
> Interviewer: *Like how?*
> Alex: *Z-O-O, Z-O-O*
> Interviewer: *Did you sound out the word?*
> Alex: *No.*

Alex was introduced to me as a low-proficient English learner who had never studied in a *bushiban*[5]. He said that he was actually very curious about English at the beginning and therefore liked the language when he started learning English in school in the third grade. "English was new and I felt curious," he said. However, in the fourth grade, the vocabulary requirements increased, and the teacher quizzed them on vocabulary. When that began occurring, he stopped doing well. " No, I don't like it now," said Alex. His negative attitude toward English and his low performance probably explained why he said that he would not choose to study in a *bushiban* if he

[5] *Bushiban* refers to the private English schools in Taiwan. I chose to use this term since it is shorter and more representative for the Taiwanese context.

could decide on his own. However, he agreed that English was important because his father had told him that English would be useful in junior high school and in his future work too.

Unlike most of the participants whose parents reminded or encouraged them to spend time studying English at home, Alex's parents did that infrequently. He said he did not take the initiative in studying English at home either. The only thing he did was to read English in school before a quiz. He never used a dictionary. Alex said that if he had any questions, he asked his classmates, but not his teacher or his parents. Considering that both of his parents graduated from high schools but not university, it is possible that they would not be able to help him study English.

On the questionnaire, Alex rated his English proficiency as "OK" and his liking of English as "OK". It was not until the interview that he explained why he stopped liking English in fourth grade. Naturally he did not list English as one of his three favorite school subjects on the questionnaire. For Alex, the English class activities he enjoyed most were competition, and games. Considering the results from the performance task and the interview, it was no surprise to see that for him the most difficult parts of learning English were vocabulary, pronunciation, and conversation. Alex scored a mean of 2.71 for the total strategy use on the *SILL,* which belonged to the medium range of use.

On the vocabulary performance task, Alex used a total of four memory strategies, including repeating the spelling silently, looking at the pictures for the meanings of the words, memorizing the sequence of the words, and memorizing the locations of the words on the page. Using both sequence and location of words was a strategy used only by two of the 12 participants - Alex and Kelly (ID 402). Throughout the performance task, Alex remained extremely quiet. He looked at each word, and silently spelled it several times without even moving his lips. I would not have been able to understand what he was doing if he had not told me by answering to my questions. The only obvious movement observed was that his eyes kept rolling up and down as he tried to memorize the words. He did not write anything down using a pen and paper, and according to Alex, he also did create any pictures in his mind as he tried to learn the words. He only looked at the pictures on the paper for the purpose of getting the meanings of the words. There was no imagery in his mind, only the words he said he was focusing on. For the quiz, Alex requested to be tested in the sequence he had memorized the words. He was able to correctly write down three complete words (ZOO, PLAYGROUND, and BEACH), while he missed certain letters for SWEATER and SHORTS. He could only put down the first letters for the rest of the words on the list. His accuracy rate was 75% based on the number of letters he spelled out correctly (36) divided by the total number of all the letters in the eight words (48).

The actual time he spent on the eight words was 5 minutes and 45 seconds, which was actually fast compared with many of the participants. As a low-proficient English learner, he did not use many strategies and the accuracy rate was not as good as most of the other participants.

Table 5.2

At-a-glance Profile of Alex: Key Points and Their Sources

Source Area	Questionnaire (Quantitative)	Performance task (Qualitative)	Interview (Qualitative)	Teacher (Proficiency level only)
Liking of English	OK.	N/A	Liked it until Grade 4 when vocabulary requirements (number of words & quizzes) made him dislike it	N/A
Time spent on self study at home	N/A	N/A	Almost never self study at home	N/A
Proficiency	Self-rating: OK	Accuracy rate on quiz: 75%	N/A	Low
Parental help with learning English	N/A	N/A	Not available	N/A
Years of English learning in *bushiban*	Never	N/A	Never	N/A
Overall strategy use	Mean = 2.71 (medium use)	Used 4 out of the total of 36 strategies recorded in total from all students	N/A	N/A
Specific strategies (or strategy category)	Used most metacognitive strategies (Mean = 4.30)	Memorized sequence and location of words	N/A	N/A
Dictionary use	N/A	N/A	Never used one	N/A
Favorite class activities	Competitions, games, conversations	N/A	N/A	N/A
Difficult parts in learning English	Vocabulary, pronunciation, conversation	N/A	N/A	N/A

Billy - Northern Region, Medium Proficiency

The main themes that arose from the quantitative and qualitative data included strong assertion of the lack of immediate importance of learning English, parental influence in vocabulary learning, metacognitive awareness by constant self-testing, and misconceptions in sound-letter relationships. The following is an excerpt taken from the performance task:

Interviewer: *Do you think that knowing how to pronounce a word would help you better memorize the word?*
Billy: *No.*
Interviewer: *No? In other words, does it mean that when you memorized the word, it had nothing to do with how it's pronounced?*
Billy: *Yes, it did.*
Interviewer: *Why yes now?*
Billy: *I would memorize it first and then after I write down the word, I will then say it out loud. That's why it had nothing to do with how I memorize it.*

Billy presented himself as a young boy of his own opinions in two ways. First of all, he was very direct in stating his belief that English was not very important because he didn't really use it in his daily life. Most young EFL learners in Taiwan have little opportunity to use English, but based on experience, I speculated that most children in Taiwan would probably say that English was important after all. Billy's parents told him English was important, but still he had his own opinions.

Second, he was rather outspoken in expressing his feelings about learning English. He gave two reasons why he did not like English. “Because I am a Taiwanese and our culture is more important,” he explained. He agreed when I told him that learning English did not mean neglecting his own culture and language, but still that did not change his mind. The second reason he gave for disliking English was because “English is too complicated.” Billy’s explanation of these complications will be discussed later, particularly in relation to vocabulary learning.

Billy’s dislike of English was further evidenced by the answers he gave on the questionnaire. He said that he would not choose to study English in a *bushiban* if he could make his own decision. He rated his English proficiency as OK, which corresponded with the proficiency level his teacher assigned him (i.e., “medium”). His overall mean score for the *SILL* was 3.0, indicating a medium use of language learning strategies. He noted that he liked his classes in Chinese, music and computers, but not English. When asked about his favorite English class activities, he marked down games, videos, and songs and chants. Like most of the participants, he enjoyed playing games as a way to learn English. In the interview, he said that he played the electronic organ and liked music, which might have been the reason for him to enjoy learning through songs and chants.

Both of Billy’s parents graduated from college. Their beliefs about how

English should be learned played an important role in Billy's learning. Billy's mother supervised his English studies by making him repeatedly write down the vocabulary. His father quizzed him after Billy memorized the vocabulary. Even though Billy did not study English on a regular basis at home, his parents asked him to review vocabulary before the exams.

For the vocabulary performance task, Billy used more strategies than the other participants. Along with Larry, he used nine strategies- the highest number of the participants. However, before presenting the results, it is important to go back to an earlier topic, Billy's dislike of learning English. As mentioned above, one reason Billy gave for disliking English was that English was complicated.

Billy: *English is very complicated.*
Interviewer: *How?*
Billy: *It is difficult.*
Interviewer: *You think English is too difficult?*
Billy: *Yes, there are too many letters.*
Interviewer: *Do you mean too many letters or too much vocabulary?*
Billy: *Too many letters.*
Interviewer: *How many are there?*
Billy: *There are 26 letters.*
Interviewer: *Yes, there are ONLY 26 letters in English.*
Billy: *But you can repeat them. And not with Ju-Yin.*[6]
Interviewer: *With only 26 letters and all the vocabulary made out of these 26 letters and you think it is more complicated?*
Billy: *But you can repeat them. It is not the same with Ju-Yin.*
Interviewer: *Not the same with Ju-Yin? Do you mean the sounds?*

[6] Ju-Yin is a set of phonetic symbols for Chinese characters.

Billy: *Yes. Ju Yin has fixed sounds, not like English.*
Interviewer: *Do you mean that the sounds change in English? And that is why you believe that English is too complicated.*
Billy: *Yes. the repetition of the letters and the sounds make it complicated.*

Ju Yin is a phonetic set of symbols used to sound out Chinese characters. There are 37 symbols altogether. Each Chinese character stands as a different individual symbol with a sound marked by Ju-Yin, making the system seem very simple and clear to Billy.

In contrast, the fact that English words are composed of only 26 letters was not a blessing but instead was confusing to Billy, because these letters did not relate to fixed sounds. Each English word looked "similar" to him because they were all made up of the same 26 letters and the sounds were variable and unpredictable.

It is very important to note that Billy did not believe that knowing the sounds or the pronunciation of a word would help him better memorize the word. Although he used a total of nine strategies, he did not sound out any words, not even quietly in his mind, according to what he had told me, except for the word PLAY. For most of the words, he simply took a look, and spelled it a couple of times in his mind. He wrote it on the paper and tested himself by writing it on the paper again without looking at the word. Following this, he checked the word for accuracy, correcting it if it was wrong before moving on to the next word. He said that pronunciation only mattered when he tried to say the word after he memorized it, a strategy he learned because his father

required it. However, for this particular task, he did not sound out the words after he memorized them, because it was not required. Since he did not know how to sound out most of the words on the list, it seemed that he treated the letters as symbols unlinked with sounds. When I asked him what he did with a longer word, Billy replied, “Then I will look at it longer. “

According to Table 5.3, Billy also employed the strategy of dividing a word into parts to memorize the word. He used this strategy for longer words like PLAYGROUND, RAINCOAT and SWEATER. He based his division of words on his prior knowledge of certain parts of words. For example, he knew the words PLAY and RAIN already and he associated TER in SWEATER with the second part of his actual name.

Table 5.3

Strategies Used by Billy on the Vocabulary Task

No.	Strategies
1	Read over word list
2	Silently spell words in his mind several times
3	Write down words on paper to memorize them
4	Write down words on paper to self test
5	Self-test each word before memorizing the next
6	Use a seemingly spiral pattern by constantly coming back to words he was afraid he might forget.
7	Divide words into parts
8	Associate words with words he had previously learned
9	Treat letters as symbols

Billy was metacognitively aware that he wanted to complete the task. In order to make sure that he got all the words, he either kept self-testing after he memorized each word or kept coming back to words he was afraid he might forget.

Interviewer: *OK, let's stop here for a while. How did you do the word BEACH?*
Billy : *The same way.*
Interviewer: *What is that?*
Billy : *I read, spell, write, and test myself.*
Interviewer: *I noticed that you did not sound out the spelling.*
Billy : *I only did it silently.*

Such practice formed a seemingly spiral pattern throughout the performance task process. This led him to achieve 100% accuracy on the quiz afterwards.

Billy demonstrated a rich repertoire of strategies for the vocabulary task. It was also fascinating to explore why and how he used the strategies. As a medium-proficient learner of English, Billy outperformed others of his level in the breadth and depth of strategies used for learning English.

Table 5.4

At-a-glance Profile of Billy. Key Points and Their Sources

Source Area	Questionnaire (Quantitative)	Think-aloud (Qualitative)	Interview (Qualitative)	Teacher (Proficiency level only)
Liking of English	Dislike	N/A	No, he thinks because he is Taiwanese, so his own culture is more important	N/A
Time spent on self study at home	N/A	N/A	30 minutes on average each week, with more time spent when there was a test	N/A
Proficiency	Self-rating: OK	Accuracy rate on quiz: 100%	N/A	Medium
Parental help with learning English	N/A	N/A	Both parents asked him to repeatedly write down vocabulary and then tested him	N/A
Years of English learning in bushiban	Never	N/A	Never	N/A
Overall strategy use	Mean = 3.0 (medium use)	Used the most strategies of all participants (9 out of 36)	N/A	N/A
Specific strategies (or strategy category)	Very high frequent use of cognitive strategies (Mean = 4.75)	Overviewed the word list before starting, constantly self-tested in a spiral patter	N/A	N/A
Dictionary use	N/A	N/A	Rarely used his electronic dictionary	N/A
Favorite class activities	Game, videos, songs & chants	N/A	N/A	N/A
Difficult parts in learning English	Pronunciation, practice, vocabulary	N/A	N/A	N/A

Charlie - Northern Region, High Proficiency

The main themes emerging from the quantitative and qualitative data included parental guidance and support in English learning, positive attitude toward learning English, awareness of the importance of sound-letter relationship in memorizing vocabulary, use of phonics to sound out words, high proficiency, and effective use of strategies. Here is an illustrative selection from the performance task:

Interviewer: *Tell me how you did the first word.*
Charlie: *I divided it into two parts.*
Interviewer: *How?*
Charlie: *QUEST and then IONN/AIRE*
Interviewer: *Why?*
Charlie: *Because it is easier.*

Charlie was interviewed in his apartment in his living room where a dozen award certificates for academic performance were hanging all over the wall. It was learned from the interview that he had been studying English since second grade for four years at one of the well-known chains of private English language schools in Taiwan. Charlie's parents were both college graduates. Charlie's mother seemed to be the one who always pushed and supported him in his academic learning. For example, she made the arrangements for him to study at a *bushiban*. Her investment in Charlie's education seemed to be paying off because Charlie was performing very well, not just in English but in almost all his other subjects. The award certificates showed this very

clearly.

Charlie liked learning English from the very beginning. He was curious when he started learning English in the second grade. Learning through games in English classes was an important reason for his motivation. Unlike many students who felt bored in English class at school since they already knew what was taught having attended English classes at *bushiban*, Charlie believed there would always be something new for him to learn. It was only natural to find on the *questionnaire* that he said he would make the decision to study at a *bushiban* of his own free will if he had a chance and that he liked English very much. Even though he outperformed his peers in class, he modestly put down an "OK" for his English proficiency. English was listed as his second favorite subject next to P.E., and he enjoyed games, quizzes and competitions in English class.

Charlie used a total of six strategies for memorizing the list of vocabulary prepared for the high-proficient participants. He used four strategies shared by many of the other participants at all proficiency levels: mouthing the spelling, sounding out the spelling, writing the words down, and self-testing. He also wrote down the Chinese definitions of the words while he memorized the words. He applied the KK phonetic system[7] to help him sound out the words, a strategy used only by the high-

[7] KK phonetic system is a set of symbols (22vowels, 25consonants) used to sound out English words, It is mainly used in Taiwan.

proficient participants. One of the strategies Charlie used throughout the task was to constantly divide up the words. Since he was able to use KK to sound out the words, one of his principles was to employ the sounds and the syllables of the words to help him break up the words. One example is PER-FOR-MANCE. He also divided up the words based on his association of parts of the words that he had previously learned, such as PERSON-ALITY. He sometimes simply broke words into halves, like STRA-TEGY and QUEST-IONN/AIRE. He later found that he already knew QUESTION but did not recognize it in the beginning. Charlie also memorized the words according to the sequence of the words. His strategies proved useful since he scored a 97% accuracy rate by missing just the last two letters in the word PERFORMANCE. Note that the vocabulary list for high-proficient learners was more difficult than low- or medium-proficient learners, so 97% for a high-proficient learner is truly outstanding.

As a high-proficient learner, Charlie's awareness of the sound-letter relationships distinguished him from the low- and medium-proficient learners. Such awareness is a distinguishing factor for all of the high-proficient learners.

Table 5.5

At-a-glance Profile of Charlie. Key Points and Their Sources

Source Area	Questionnaire (Quantitative)	Think-aloud (Qualitative)	Interview (Qualitative)	Teacher (Proficiency level only)
Liking of English	Like (very much)	N/A	Curious at the beginning and enjoys learning through games	N/A
Time spent on self study at home	N/A	N/A	1.5 hours on average each week, mostly at mother's request	N/A
Proficiency	Self-rating: OK	Accuracy rate on the quiz: 97%	N/A	High
Parental help with learning English	N/A	N/A	Help from his brother, instead of his parents	N/A
Years of English learning in *bushiban*	4 years	N/A	Learning English at a *bushiban* since Grade 2	N/A
Overall strategy use	Mean = 4.58 (high use)	Used 6 out of 36 strategies	N/A	N/A
Specific strategies (or strategy category)	Reported full use of affective & social strategies (both means = 5.00)	Applied phonics in sounding out words	N/A	N/A
Dictionary use	N/A	N/A	Used an electronic dictionary 4-5 times per week to practice "sentence making"	N/A
Favorite class activities	Games, quiz, competitions	N/A	N/A	N/A
Difficult parts in learning English	Grammar, practice, vocabulary	N/A	N/A	N/A

Note. Charlie used his electronic dictionary mainly for practicing "sentence making" where he put words into a complete sentence, a specific feature of the electronic dictionary. He is now at level 5 on a 1-9 scale for the sentence making exercise.

Daisy - Central Region, Low Proficiency

The main themes that grew from the quantitative and qualitative data included rigid use of inappropriate strategies, lack of sound-letter relationships, lowest accuracy rate, and limited parental education. A sample taken from the think-aloud follows:

Interviewer: *Do you usually write down the Chinese characters when you try to memorize a word?*
Daisy: *Yes.*
Interviewer: *You wrote down the Chinese while you memorized the word. What else were you thinking when you were doing that?*
Daisy: *Nothing.*

Daisy smiled like a blossoming flower, and her name really could not have suited her better. She smiled in an innocent and sweet way each time she was asked a question. She was not a sophisticated learner and her answers seemed at some point to indicate she was trying to please me by giving socially desirable answers.

Daisy's liking English, according to the interview, seemed to be closely related to vocabulary and games. She liked English a lot when she could understand the vocabulary, but as the vocabulary size requirements increased in fifth grade, she did not like it as much as she used to. However, she still liked English because she enjoyed English-learning games. Unfortunately, as time went by and the content became harder, the teacher used fewer games in class and Daisy's liking of English

flagged.

Daisy had never studied in a *bushiban*, but she said she would do so if she could choose. She said her mother did not think it was necessary for her to go to a *bushiban* yet, but her older sister had been attending a *bushiban* for six months. Daisy went to her sister for help if she had a question about English. Her sister also helped her by testing Daisy's vocabulary. The phenomenon of siblings or parents helping test vocabulary emerged from the interviews for many participants. Daisy's mother graduated from junior high school and her father from elementary school. Her parents' limited education was probably the main reason why she received limited help from them.

Daisy's use of strategies for the vocabulary task was also limited and in a way rigid. She used a total of four strategies, including mouthing the spelling, sounding out the spelling very softly, repeatedly writing down the words, and repeatedly writing down the Chinese definition of the English words. She first wrote down an English word on the paper and then the Chinese characters of the word. Then she repeated this three more times. She took time, doing this letter by letter and stroke by stroke. After she did this four times for each word, she then very softly mouthed the spelling a few times. When I asked her why she didn't just write the Chinese characters once since she would then know the word, she said, "It is better this way to help me memorize

the word."

Daisy's strategies did not help her tremendously on her accuracy of the eight words she later wrote down for the quiz after the think-aloud. She was not able to spell out the words given by me in the quiz the first time, so she was given extra time until she said she was ready to try again. Even with a total of 14 minutes for memorizing the eight words, she was only able to spell out two complete words (ZOO and PARK), the first half of PLAYGROUND and the first initials of the rest of the words. Her accuracy rate was 33%, the lowest among the 12 participants. Daisy's minimal use of strategies and possibly her inappropriate use of some of the strategies might explain her low proficiency rate. She probably overestimated her own strategy use, as she scored a 3.58 (high use) for the total mean score on the *SILL*.

Table 5.6

At-a-glance Profile of Daisy. Key Points and Their Sources

Source Area	Questionnaire (Quantitative)	Think-aloud (Qualitative)	Interview (Qualitative)	Teacher (Proficiency level only)
Liking of English	Like	N/A	Not at the beginning when she did not understand the vocabulary	N/A
Time spent on self study at home	N/A	N/A	1 hour each week on average	N/A
Proficiency	Self-rating: OK	Accuracy rate on the quiz: 33% (the lowest)	N/A	Low
Parental help with learning English	N/A	N/A	Older sister helped test vocabulary	N/A
Years of English learning in *bushiban*	None	N/A	N/A	N/A
Overall strategy use	Mean = 3.58 (high use)	Used 4 out of 36 strategies	N/A	N/A
Specific strategies (or strategy category)	Reported high frequency use of metacognitive strategies (Means = 4.40)	Repeatedly writing down Chinese characters	N/A	N/A
Dictionary use	N/A	N/A	Did not have one and never used one	N/A
Favorite class activities	Quiz, competitions, games	N/A	N/A	N/A
Difficult parts in learning English	Listening, grammar, vocabulary	N/A	N/A	N/A

Eddie - Central Region, Medium Proficiency

The main themes deriving from the quantitative and qualitative data included lack of interest in learning English, constant self-testing, use of guessing strategy based on Chinese characters, use of dictionary for new words, and initiative in studying English at home. A sample interaction from the think-aloud is as follows:

Interviewer: *How do you know it [the word RAINCOAT] has two words?*
Eddie: *Because the Chinese has two words, Yu-Yi (Yu-meaning rain and Yi- meaning clothing), I guess there are two words here.*

"I don't like English very much," said Eddie honestly and yet with an embarrassed smile on his round face. It was difficult having to memorize vocabulary and he had failed two placement tests at the *bushiban* he had attended because he could not "catch up." "It was my mom's idea and she forced me to go," said Eddie, who seemed to believe that his mother was responsible for what had happened. "She knew that it was useless to force me since I didn't want to go anymore." Therefore, he got permission from his mother to drop out of the *bushiban* after studying there for one year. Even though English classes in school have always been easy for him, he still disliked English, and on the questionnaire, he naturally stated that he would not choose to go to a *bushiban* even if he was given a choice. English was certainly not one of his favorite subjects.

"But I like games," he said, his eyes sparkling with excitement. He described a "Hammer Game" in which students competed in two teams by having to hit (using a plastic hammer) the right word that was said aloud by the teacher. The winner was the student who hit the correct word first. This game is very commonly used by Taiwanese English teachers and was also mentioned by two other participants from different schools. Many English teachers use this game to review vocabulary that the students have studied. It was obvious from the response of students that games played an important role in sustaining the students' motivation to learn English.

Eddie said that he took the initiative to study English at home only when he had the time. Since there were so many subjects to learn, Eddie said he prioritized them based first on his interest in the subjects and then on their importance. "Well, I will study the ones that I am interested in the most, and then the ones that are important, and I leave English to the end because it is my least favorite," claimed Eddie in a defensive tone. As for most participants, Eddie's home study of English meant reviewing vocabulary encountered in school. Eddie stated, "I will read the words and then memorize them" an answer echoed by participants describing their study of English at home.

A total of seven strategies were identified from Eddie's think-aloud. Five of these are as follows: looking at the pictures for meaning, repeatedly and softly mouthing the

spelling, dividing up words into parts, self-testing by hiding the words, and going back to the more difficult words in case he might forget them. In a way, Eddie was using a seemingly spiral pattern for the same reason that Billy (ID 202) did. He was also very conscious of being in control of what he was doing like Billy and Charlie (ID 103), by using self-testing to ensure that he had learned the words.

Interviewer: *Were you paying any attention to the pictures?*
Eddie : *Yes.*
Interviewer: *Did it help you memorize the words?*
Eddie : *Yes, it tells me what it means.*
Interviewer: *Anything else?*
Eddie : S*elf-testing without looking at the words.*
Interviewer: *After you did all the words?*
Eddie : *Yes. And if I didn't get it right, I have to keep doing the words.*
Interviewer: *But you didn't use pen and pencil while you were memorizing the words?*
Eddie : *No. I will do mouthing first and then use pen and pencil while I self-test.*
Interviewer: *And then?*
Eddie : *And for the ones that I got wrong, I will self-correct by writing the correct word five times on the paper.*
Interviewer: *Ok, you can review again before we start the quiz.*

An additional strategy he used that was shared by two high-proficient learners, Ivy (ID303) and Larry (ID 403), was to skip the difficult words and move to the easier ones. The last strategy he used, which was also the most interesting one, was to guess that there are two parts in the word RAINCOAT based on the fact that there are two characters in the Chinese definition for the word Yu-Yi (Yu means rain and Yi means clothing in Chinese.)

Table 5.7

At-a-glance Profile of Eddie. Key Points and Their Sources

Source Area	Questionnaire (Quantitative)	Think-aloud (Qualitative)	Interview (Qualitative)	Teacher (Proficiency level only)
Liking of English	Dislike	N/A	Yes, at the beginning but not now since it has become more difficult for him to memorize vocabulary	N/A
Time spent on self study at home	N/A	N/A	1 hour each week on average	
Proficiency	Self-rating: OK	Accuracy rate on the quiz: 83%	N/A	Medium
Parental help with learning English	N/A	N/A	Older brother helped test vocabulary	N/A
Years of English learning in *bushiban*	1 year	N/A	Quit after 1 year studying at the *bushiban* because he could not catch up	N/A
Overall strategy use	Mean = 2.90 (medium use)	Used 7 out of 36 strategies, one of the high frequency user	N/A	N/A
Specific strategies (or strategy category)	Most frequently used category was compensation strategies (Means = 3.50)	Skipped more difficult words, divided words into parts based on previously learned words, constant self tested	N/A	N/A
Dictionary use	N/A	N/A	Used a regular bilingual dictionary	N/A
Favorite class activities	Competitions, games, Reading	N/A	N/A	N/A
Difficult parts in learning English	Grammar, listening, conversation	N/A	N/A	N/A

Frankie - Central Region, High Proficiency

The main themes that evolved form the quantitative and qualitative data included division of words into parts, strong sense of applying syllables for sounding out words, use of "relatives" (term used by Frankie to describe related words) as an association strategy, comparatively large vocabulary size, high proficiency, and effective use of strategies. The following is an excerpt from the think-aloud:

> Frankie: *But the word has "relatives"!*
> Interviewer: *Relatives? What do you mean?*
> Frankie: *Like STRATEGY has a relative like STRONG.*

Frankie constantly played with the microphone from the very beginning of the interview. Throughout the entire process, he was touching the microphone, waving his head, rolling his eyes, and making faces; and eventually succeeded in distracting me a few times. He was naughty, playful and funny, and clearly enjoyed himself in the interview. Frankie had studied English for eight years (since he was three years old), the longest of all 12 participants. He knew the English language very well. He made sophisticated associations like "QUESTIONNAIRE is just like POPCORN" because "both words have two parts" and "EVALUATE is just like ESTIMATE" because "they sound alike". He demonstrated a knowledge of vocabulary that was not known to most of the participants. He certainly was an advanced learner, as his teacher had already told me

Frankie's father was the director of the accounting department in a senior high school in central Taiwan. His mother had made arrangements for Frankie to attend *bushibans*. They were both college graduates, and obviously they were very concerned about their son's English education. Frankie was put into a bilingual kindergarten at the age of three for three years before he started regular school. He had been taking English classes at *bushibans* for the following five years. His English education was never discontinued. He had had many foreign teachers and a large amount of exposure to English. He had also already taken and passed the basic level of the General English Proficiency Test (GEPT) [8], indicating that he had the English skills of a junior high graduate of age 15.

Frankie also demonstrated his ability to manipulate the vocabulary. He did not use a lot of strategies for the task (only five). However, since he had already developed a pretty large vocabulary for someone his age, he was able to make associations with many words he had learned before. He divided words up based on syllables and his instinct. For example, he broke the word EXTRAORDINARY into six parts according to the syllables. Since he had learned the word QUESTION, he believed that QUESTIONNAIRE and POPCORN are alike because there are two parts in both words. It was clear how he had associated SELECT with COLLECT. He

[8] GEPT was first launched in 2001 by the Language Testing and Training Center, an official organization responsible for foreign language testing and training for government officials.

linked EVALUATE with ESTIMATE because they look alike. He was one of the very few students who had actually applied a system, in his case phonics, to help him sound out words. He said that he could memorize a word by sounding it out without having to spell it out letter by letter as most students did.

The most intriguing strategy he used was something he called "relatives". For example, to Frankie, the word STRATEGY had a relative STRONG.

Interviewer: *Well, that is exactly what I am trying to find out here. How did you do it?*

Frankie : *You don't have to rely on the pronunciation to be able to memorize the words.*

Interviewer: *If you don't rely on the sound what do you rely on?*

Frankie : *On its "relatives".*

Interviewer: *On its relatives? For example?*

Frankie : *STRONG (Again he sounded out the G sound)*

Interviewer: *Did your teacher teach you this method about the "relatives"?*

Frankie : *No.*

Interviewer: *You just know how to do it?*

Frankie : *Yes.*

Interviewer: *You would simply know how to associate a word with what you have learned before?*

Frankie : *Yes.*

Interviewer: *What about the term "relatives?" Why that term? Who taught you the term?*

Frankie : *Well, they look alike and if that is not "relative", what is?*

Interviewer: *So because they look alike, you call them relatives?*

Frankie : *Yes.*
Interviewer: *Have you ever heard the term "relatives" from any teacher?*
Frankie : *No.*
Interviewer: *Have you ever heard it from any of your classmates?*
Frankie : *No.*
Interviewer: *So it is just a term you use yourself?*
Frankie : *Yes.*

To Frankie, "relatives" are defined as words that look alike, just as human relatives usually resemble each other somewhat. However, he only applied this strategy with two words: STRATEGY with STRONG and SELECT with COLLECT. Note that these were not semantically linked words; they were phonetically linked words. He had a strong sense of the sounds of words, as he was able to pronounce many of the words on his own. At one point in the think-aloud, he associated the name of one of his classmate's (Eva), when he was memorizing the word EVALUATE. It was obvious that he was making all sorts of associations based on how a word sounded and what it looked like. The important factor was that he had his own word bank from which he was able to draw all the associations. This has been one significant characteristic of all three high-proficient learners in this study.

Frankie was able to spell out all the words on the quiz except for the word EVALUATE, which he had forgotten. After I said the word in English, he wrote it down correctly in no time. His skillful and positive results in the interview and think-aloud were echoed in the questionnaire, where his total strategy mean was 3.61 and where he rated his English proficiency as "VERY GOOD".

Table 5.8

At-a-glance Profile of Frankie. Key Points and Their Sources

Source Area	Questionnaire (Quantitative)	Think-aloud (Qualitative)	Interview (Qualitative)	Teacher (Proficiency level only)
Liking of English	Like	N/A	N/A	N/A
Time spent on self study at home	N/A	N/A	1 hour each week on average	N/A
Proficiency	Self-rating: very good	Accuracy rate on the quiz: 100%	N/A	High
Parental help with learning English	N/A	N/A	Older brother helped test vocabulary	N/A
Years of English learning in *bushiban*	8 year	N/A	3 years in a bilingual kindergarten and 5 in a *bushiban*	N/A
Overall strategy use	Mean = 3.61 (high use)	Used 5 out of 36 strategies	N/A	N/A
Specific strategies (or strategy category)	Most frequently used category was affective strategies (Mean = 4.33)	Used "relatives" for words that look alike, had strong association with previously learned words	N/A	N/A
Dictionary use	N/A	N/A	Used an English/English monolingual dictionary	N/A
Favorite class activities	Videos, games, quiz	N/A	N/A	N/A
Difficult parts in learning English	Grammar, reading, conversation	N/A	N/A	N/A

Gabi- Southern Region, Low Proficiency

The main themes arising from the quantitative and qualitative data included division of words into parts based on number of letters in words, beliefs in functions of games, vocabulary testing by siblings and classmates, and constant self-testing. An excerpt taken from the think-aloud is given below:

Interviewer: *Why did you divide the word into PLAYG and ROUND?*
Gabi: *Because I simply evenly divide up the letters in half.*
Interviewer*: So if there are 10 letters, you break them into 5 and 5 and if there are 8 letters, you break them into 4 and 4?*
Gabi: *Yes.*
Interviewer: *What if there are 7 letters?*
Gabi: *You can either divide them into 3 and 4 or 4 and 3.*

Gabi was a big tall girl, but with bashful smiles all the time. She had been studying English in school, at a *bushiban* and also at a homework club. The fact that she had already learned in a *bushban* what was taught in school made her feel good, she explained. She said that she enjoyed learning through games and that the teacher rewarded good grades with access to computer games. Games have many purposes, according to Gabi. She believed that games could help her learn and memorize new things. Moreover, "games help the teacher understand how well we are learning," she claimed. Finally, games show "who has the best memory," Gabi asserted.

Interviewer: *Do you think it is a good method to use games?*
Gabi : *Yes, it can help us learn and memorize things we don't know.*
Interviewer: *So games are not just games, they are used to help you learn things.*
Gabi : *Yes.*
Interviewer: *Can you give me an example?*
Gabi : *For example, the teacher will ask us to put the colors in order and then she would mix the sequence and we need to put it back in the correct order.*
Interviewer: *And you think it is interesting?*
Gabi : *Yes.*
Interviewer: *What is your favorite subject in school?*
Gabi : *Chinese.*
Interviewer: *Why?*
Gabi : *Because we can learn things we don't know and if you learn it you can write the correct answers on the test*
Interviewer: *And you do well? What about English? Would you say it's one of your favorite subjects?*
Gabi : *No.*
Interviewer: *What about your favorite class activities?*
Gabi : *Games.*
Interviewer: *You like to play games? Why?*
Gabi : *Because games help the teacher understand how well we are learning.*
Interviewer: *Oh, that is nice. Games can do that?*
Gabi : *And it helps to see who has got the best memories!*

Gabi's parents both graduated from college but didn't really help with her English since they were usually busy. Gabi asked her sister to help test her after she memorized some words. She also used a Chinese/English dictionary to look for the Chinese definitions of words she did not know. Among all the participants, Gabi was the only one who said her English teacher at the *bushiban* had asked them to bring their dictionary to look up new words.

On the think-aloud vocabulary task, Gabi used a number of strategies, such as repeatedly using silent spelling in her mind, memorizing the words in sequence and self-testing. Like many other participants, Gabi divided words, but she did so in a very different way. Evenly dividing the words according to the number of letters was her approach. It had nothing to do with sounds or syllables, but was purely mathematical. She used this strategy for PLAYGROUND, RAINCOAT and SWEATER. Since there were seven letters in SWEATER, she broke it into SWE and ATER. Gabi said that it was a method taught by the teacher at the *bushiban*. However, I believe that the teacher was trying to teach students to break words according to the syllables, because Gabi said the teacher was using KK phonetics to help them sound out and divide the words. Gabi was not very clear about KK, and since she rarely sounded out the words she memorized, she seemed to have simply changed it into her own method.

Unlike those who used the pictures above the words for their meanings, Gabi put the pictures in her mind, and she also remembered the colors of the clothing (see appendix E for the two pages of the vocabulary used for low- and medium-proficient learners). The strategy of applying imagery was not frequently used by most of the participants in this study. Gabi did fine with the quiz at the end of the think-aloud, with an accuracy rating of 83%, missing a few letters for some of the words. On the

questionnaire, Gabi rated her English proficiency as “OK”. The total strategy mean score on her *SILL* was 2.29, indicating low range of use. This was also the lowest mean score among all 12 participants in this study.

Table 5.9

At-a-glance Profile of Gabi. Key Points and Their Sources

Source Area	Questionnaire (Quantitative)	Think-aloud (Qualitative)	Interview (Qualitative)	Teacher (Proficiency level only)
Liking of English	Like	N/A	Enjoyed games and having learned in *bushiban* what was taught in school made her feel good	N/A
Time spent on self study at home	N/A	N/A	30 minutes each week on average	
Proficiency	Self-rating: OK	Accuracy rate on quiz: 83%	N/A	Low
Parental help with learning English	N/A	N/A	Older sister helped test vocabulary	N/A
Years of English learning in *bushiban*	1 year	N/A	1 year in a *bushiban*	N/A
Overall strategy use	Mean = 2.29 (low use)	Used 8 out of 36 strategies, one of the high frequency users	N/A	N/A
Specific strategies (or strategy category)	Reported very low frequency use of affective strategies (mean = 1.00)	Evenly divided words based on number of letters, wrote down words to self test	N/A	N/A
Dictionary use	N/A	N/A	Infrequent use of a regular bilingual dictionary	N/A
Favorite class activities	Games, competitions, listening	N/A	N/A	N/A
Difficult parts in learning English	Grammar, listening, conversation	N/A	N/A	N/A

Henry - Southern Region, Medium Proficiency

The main themes that resulted from the quantitative and qualitative data included beliefs in the lack of immediate importance of learning English, belief in the function of games, lack of interest in easy content in English learning in school, heavy reliance on teachers for help, and limited use of strategies. Following is a sample interaction from the think-aloud.

Interviewer: *Tell me how you did this word?*
Henry : *I divided it up into two parts.*
Interviewer: *Based on what?*
Henry : *Based on my instinct.*

Henry was a quiet and serious-looking boy. He was somewhat reserved in his facial expressions and his reactions to the think-aloud and the interview. He said in the interview that after having studied English in a *bushiban* for three years, he neither liked nor disliked English. He felt it was just OK. He said that he had liked it in the beginning because it was new to him. Henry felt a bit bored by the English class at school since it was too easy and not as challenging to him as the *bushiban*'s.

Interviewer: *Do you like your teacher here?*
Henry : *OK.*
Interviewer: *Do you like teachers at the private school?*
Henry : *Better then here.*
Interviewer: *Why?*
Henry : *They use more games.*

Interviewer: *So you like it there better?*
Henry : *It is more interesting.*
Interviewer: *Is it because you have studied there for 3 years and you have learned a lot and therefore the you know most of what is taught here in school?*
Henry : *Yes.*
Interviewer: *So how is it here?*
Henry : *(Pause 3 seconds) It is more…*
Interviewer: M*ore what?*
Henry : *(Pause 4 seconds) more boring here.*
Interviewer: *Since you already know it so it is more boring?*
Henry : *Yes.*

However, he would not choose to study at a *bushiban* if he could make his own decision. To Henry, English did not seem to have immediate importance because he did not use it very often; however, he believed it would be important for him in the future. In a way, he has similar opinions to Billy, but he was not as direct in saying that English was not important.

Unlike most of the other participants, Henry studied English at home but did so only at his mother's request. "Mom sets the rules for me to study English about two to three times a week," he stated. Reviewing and memorizing vocabulary were the focus of his study at home. Although he had a dictionary, Henry seldom used it. Instead, he asked his teacher or classmates at the *bushiban*. He usually did not get help from home since he had a younger brother and sister, and his mother did "not know how to help" him.

Henry was also the only medium-proficient learner who had to be given the list of the challenge words for the high-proficient learners, since he knew all the words prepared for the low-and medium-proficient learners. He was found to have used a limited number of strategies (four) for the vocabulary task. He repeatedly and silently spelled out the words, and repeatedly wrote the words on the paper. He sounded out the words he knew how to pronounce and also divided up the words into parts. When he was asked how he had done that, he said it was based on his instinct. To Henry, knowing the sounds of the words made no difference to him because he was able to memorize words whether he knew the sounds or not. He mentioned that when he was memorizing the word QUESTIONNAIRE, the Taiwanese Children's *SILL* popped up in his mind. Henry missed the two words STRATEGY and EVALUATE on the quiz but got all the other words correct. It was interesting to find that even after I told him those two words in English, he was still not able to spell them out. This was very different from the high-proficient students, who were aware of the sound-letter relationships. Henry did not apply any of the phonetic system to help him sound out the words.

As a result, Henry achieved only a 75% accuracy rating on the quiz. Henry's mean score for overall strategy use was 3.19, a medium range of strategy use. He also rated his English proficiency as "OK". Even though Henry was the only medium

proficient learner who was given the challenge words, the results seemed to indicate that Henry's profile belonged to a medium-proficient learner since he was weak in sound-letter relationships, an important feature of the high-proficient participants.

Table 5.10

At-a-glance Profile of Henry. Key Points and Their Sources

Source Area	Questionnaire (Quantitative)	Think-aloud (Qualitative)	Interview (Qualitative)	Teacher (Proficiency level only)
Liking of English	OK	N/A	New and fun to him with foreign teacher at the *bushiban*	N/A
Time spent on self study at home	N/A	N/A	1 hour each week on average	N/A
Proficiency	Self-rating: OK	Accuracy rate on the quiz: 75%	N/A	Medium
Parental help with learning English	N/A	N/A	No parental help but always asked teachers	N/A
Years of English learning in *bushiban*	More than 3 year	N/A	3 years in a *bushiban*	N/A
Overall strategy use	Mean = 3.19 (medium use)	Used 4 out of 36 strategies,	N/A	N/A
Specific strategies (or strategy category)	Most frequently used category was affective strategies (mean = 4.00)	Divided words based on his instinct	N/A	N/A
Dictionary use	N/A	N/A	Infrequent use of a regular bilingual dictionary	N/A
Favorite class activities	Games, competitions, reading	N/A	N/A	N/A
Difficult parts in learning English	Grammar, reading, conversation	N/A	N/A	N/A

Ivy - Southern Region, High Proficiency

The main themes growing from the quantitative and qualitative data included high proficiency, use of story-making, exceptional self-direction in English learning, more prior learning, skillful use of the dictionary as a tool, and use of strategies for listening and reading. An excerpt from the think-aloud is given as follows:

Ivy: *I used association to help me while I was memorizing the word.*
Interviewer: *How?*
Ivy: *For example, if you quiz me, I will try to put the words in a chain to make a story to help me remember the next word that I have to memorize.*

Ivy stood out among all the interviewees as a unique English learner in many ways.

First, she had been learning English for more than six years, since kindergarten. She had already attended three *bushibans* and was now taking an extra writing class in which she was learning how to summarize in writing the main ideas of articles. She was an advanced learner compared with most of the participants, both in the number of years of study as well as the sophisticated nature of her English skills.

Second, she was very mature in that she was aware of the kind of English-learning experiences she wanted. She made decisions about which *bushibans*

to attend by asking her classmates and searching on-line. According to Ivy, she decided to quit one of the *bushibans* after studying there for six months because it was not challenging enough for her and because "It was too expensive and I was not learning enough."

Third, while most participants used a dictionary only infrequently and only looked for the Chinese definitions of words when they did, Ivy had already developed many strategies in using an electronic dictionary as an important studying tool. In the interview, she said she first listened to the pronunciation of the word she looked up and made an effort to memorize the word. She looked at the sentences provided in the electronic dictionary to compare the meanings of different usages of the same word. She used the dictionary to help her when she summarized in writing the main ideas of articles provided by the *bushiban*. She chose a word from the electronic dictionary that best suited the meaning for the sentences she wrote. Cognitive and metacognitive strategies seemed to be reflected in her use of the electronic dictionary as a tool for learning English.

Fourth, Ivy had a real sense of joy in learning English, whereas many others simply reacted to it as something they had to study. "Every time I go to the *bushiban,* I always feel very happy and I just don't know why," claimed Ivy. She showed excitement as she described a very meaningful experience when she was asked about

her favorite English class activities:

Ivy: *I love the "Sentence of the Week"*

Interviewer: *Why is that?*

Ivy: *Because I can learn some new words and I can sometimes use them. For example, we learned a sentence one time called "Be honest; don't lie". Later at the* bushiban*, coincidentally we were asked to make a sentence using the word "honest."*

Interviewer : *What sentence did you make?*

Ivy: "*Be honest; don't lie*."

She said this with a sense of honest pride. Although she merely copied the sentence she had previously learned, her glowing eyes revealed the joy and excitement she showed of learning itself.

In the think-aloud on the vocabulary task, Ivy again demonstrated characteristics of an advanced learner in having a layer of strategies she could use appropriately. She used a total of eight strategies, many of which were shared by other participants. Examples included repeating the spelling silently (used by almost all participants), sounding out the words she knew, and also associating them with words previously learned (both strategies used by four of the high-proficient students in Phase II). She also used KK phonetics to help her sound out and memorize the words. Furthermore, she divided up the words based on syllables, which was a strategy used by no other participants except Frankie (ID 203). She also used Billy's and Larry's strategy of skipping the more difficult words and starting with the easier ones. However, unlike any of the other 11 participants, she used a unique strategy that is rarely used by even

proficient adult learners of English.

Ivy: *I used association to help me while I was memorizing the words*
Interviewer: *How?*
Ivy: *For example, if you quiz me, I will try to put the words in a chain to make a story to help me remember the next word that I have to memorize.*
Interviewer: *So you mean while you were memorizing these words, you actually thought of a story using these words? Tell me more about it.*
Ivy: *Well, if you quiz me, then I will try to put them in a story. Like there is a test, and there will be a QUESTIONN/AIRE. And you would ask me about the STRATEGIES I use for learning English.*
Interviewer: *Yes, like I already explained to you in the beginning about my purpose of learning more about the strategies you use to learn English.*
Ivy: *And after I get the results, I will know how well I do and it will be my PERFORMANCE- whether I do good or bad. And maybe I will have to SELECT something during the quiz and it might be right or wrong. And for EVALUATE, you, the teacher will evaluate how my PERFORMANCE was. And the questions you ask me will find out about my PERSONALITY and also about learning how to RESPECT people.*
Interviewer: *When did you do that[put the words in a story]?*
Ivy: *After I know all the meanings of these words.*
Interviewer: *So were you putting all the words in a story while you were doing each word?*
Ivy: *Well, I thought the words are somehow related. For example, QUESTION/AIRE can be related to STRATEGY.*
Interviewer: *Was it because I had told you about my purpose?*
Ivy: *Not really, I just happened to make the association.*

Four facts from Ivy's explanation are amazing. First, she was able to weave the seven long and difficult words (from a total of eight) into a story. Second, the story was logical and made sense. Third, she achieved this within a very short period of time (the actual time she spent on the process of memorizing these eight words was recorded and calculated as two minutes and 37 seconds). Fourth, she still obtained a

100% accuracy rate later on the quiz. When Ivy used this special strategy, she expanded the strategy repertoire used by the EFL elementary school students, and she also demonstrated her ability as a highly proficient learner for such a complicated use.

According to the results of the questionnaire, Ivy's father was a college graduate and her mother a high school graduate. She said she would choose to study English at a *bushiban* from her own will, which was what she actually did. She rated herself as a learner of high proficiency, which corresponded to her total strategy mean of 4.35 (a very high range of use on a five-point scale). She said she liked English very much even though she did not include English as one of her favorite subjects in school on the questionnaire. (Instead, she listed math, computers, and music). Based on the interview, she did mention that the English class in school tended to be too easy and sometimes "boring" since she already knew most of the materials taught by the teacher. Of course, as previously mentioned, the only exception was the "Sentence of the Week", which she really enjoyed.

Among all the classroom activities listed on the questionnaire, her favorite ones were conversation, writing, and reading. The fact that she had been studying English for six years (one year at a kindergarten and five years at the *bushibans*) might explain her first choice of conversation. It is true that conversational ability is one thing emphasized by most *bushibans* since it has often been one of the weaknesses of

most English learners in an EFL context like Taiwan. At one point of the interview she said that she enjoyed the current *bushiban* because "…they teach you four skills, listening, speaking, reading and writing." Unlike many other participants who based their preference for learning English on the ease of the subject, Ivy enjoyed challenges in learning English.

Like most English learners, young and old, Ivy said that the most difficult part of learning English for her was grammar, followed by practice, reading, conversation and vocabulary. There is no surprise that vocabulary was listed as the least difficult since she had demonstrated evidence of her ability in dealing with memorizing vocabulary in the think-aloud. One thing that is worth noting here is her strategy use mean for metacognitive strategies (5.00), which indicates that Ivy was very metacognitively aware of her own learning and that there was much evidence of her taking initiative and control of her own learning to a great extent.

As an advanced and experienced learner of English, Ivy has no doubt demonstrated many characteristics and qualities that are not usually found among her advanced peers. Her language learning experience reveals rich data that has provided a better and deeper understanding of the vocabulary learning strategies of a proficient learner like her.

Table 5.11

At-a-glance Profile of Ivy. Key Points and Their Sources

Source Area	Questionnaire (Quantitative)	Think-aloud (Qualitative)	Interview (Qualitative)	Teacher (Proficiency level only)
Liking of English	Like (very much)	N/A	English was always fun and challenging	N/A
Time spent on self study at home	N/A	N/A	2-3 hours each week on average	N/A
Proficiency	Self-rating: very good	Accuracy rate on the quiz: 100%	N/A	High
Parental help with learning English	N/A	N/A	No parental help but always tried to find out the answers by herself first	N/A
Years of English learning in *bushiban*	More than 3 year	N/A	6 years in a *bushiban*	N/A
Overall strategy use	Mean = 4.35 (high use)	Used 8 out of 36 strategies, one of the high frequency user	N/A	N/A
Specific strategies (or strategy category)	Reported full use of metacognitive strategies (Mean = 5.00)	Used story-making, applied KK phonetics to sound out words, strong association with previously learned words	N/A	N/A
Dictionary use	N/A	N/A	Very skillful use of electronic dictionary	N/A
Favorite class activities	Conversation, writing, reading	N/A	N/A	N/A
Difficult parts in learning English	Grammar, practice, reading	N/A	N/A	N/A

Jenny - Eastern Region, Low Proficiency

The main themes that derived from the quantitative and qualitative data included vivid use of imagery, use of Ju-Yin for sounding out words, vocabulary testing by family members, low accuracy rate, and lack of initiative-taking in learning. The following is an example taken from the think-aloud:

Jenny: *I looked at the picture.*
Interviewer: *Good. And ?*
Jenny: *I pictured a pair of shorts*
Interviewer: *Which ones?*
Jenny: *The ones I wear for my PE class. Some sports shorts.*
Interviewer: *Good. What color are they?*
Jenny: *They are black.*

Jenny seemed a little bit uneasy at the beginning. The classroom heat was making her sweat a lot on that hot early summer afternoon. She smiled as I handed her some tissue. As the conversation moved along with the think-aloud, she began to loosen up and she smiled more, especially when she talked about how she enjoyed one of her favorite English class activities. It was a game-like activity sometimes used by her English teacher in the school. “When our class starts, the teacher will first ask us to stand up and then she will give us a quiz by asking each one of us a question,“ Jenny said with her big eyes. “If you get the answer right, then you can sit down!”

Jenny had always liked English from the beginning. Her father had told her that if she kept studying English and if she ever went abroad, she would be able to speak to foreigners in English. When she had a question, she would ask whoever was available - her teacher, her parents and her two older brothers. A very important role her parents and brothers played was to help her by testing her vocabulary. When she said she would study English at home, she copied the words on paper, memorized them, and tested herself. Jenny relied on Ju-Yin a lot to help her sound out the English words. (As previously mentioned, Ju-Yin is a phonetic system used to sound out Chinese characters). Many students would apply Ju-Yin to help them sound out the English words before they learned how to use either KK phonetics or phonics.

"I will put Chinese Ju-Yin symbols under the words to help me read them, and my classmates are all doing this," said Jenny, speaking in a somewhat righteous manner. When I asked her to actually put down Ju-Yin for the word PANTS and asked her to sound out, it was not really very close to the actual pronunciation of the word. "How does that help you?" I wondered. "It will remind me of the correct pronunciation," Jenny justified. When asked if she was using Ju-Yin to help her memorize the eight words for the task, Jenny said "No, because I don't have to sound out to memorize the words." More will be revealed of the role played by Ju-Yin in the students' learning process in the summary of this chapter.

Among all the participants, regardless of their proficiency levels, Jenny was the only one who used a lot of imagery strategy. She also used more strategies than the other three low-proficient peers. Like most others, she silently spelled out the words in her mind. Like some of the others, she skipped the more difficult words and started with the easier ones. For the two words that she thought were the hardest (and therefore saved till the last), she divided them into two parts - RAIN and COAT, and PLAY and GROUND. No specific reason was given for such division.

Jenny said that she looked at the pictures when she was trying to memorize the words. She was also picturing the places and the clothing with very vivid imagery in her mind.

Jenny : *I pictured a beach with many people on the beach playing*.
Interviewer: *Was it the same as this picture on the page?*
Jenny : *No, not this one.*

She did the same thing for the words ZOO, PARK, and PLAYGROUND. She even pictured herself in the PARK and on the BEACH. For the clothing on the right hand page (Appendix F), she said that she was thinking of a pair of black SHORTS, the sports uniform for her PE class. She said that she pictured a department store where there were many PANTS hanging on the rack for sale. For the word RAINCOAT, what popped up in her mind was a picture of people wearing raincoats

in the winter time. It was fascinating to hear what she was describing. She spent a total of 9 minutes and 13 seconds studying the eight words. Unfortunately, the strategies she used could only help her achieve an accuracy rating of only 46%, higher only than Gabi (ID 201). An interesting question raised here is: you don't have to use imagery to memorize a word, but would using imagery help you better memorize the word? Further discussion will be included in the final chapter.

Table 5.12

At-a-glance Profile of Jenny. Key Points and Their Sources

Source Area	Questionnaire (Quantitative)	Think-aloud (Qualitative)	Interview (Qualitative)	Teacher (Proficiency level only)
Liking of English	Like (very much)	N/A	Because dad said English was important	N/A
Time spent on self-study at home	N/A	N/A	1 hour each week On average	N/A
Proficiency	Self-rating: OK	Accuracy rate on quiz: 46%, second to the lowest	N/A	Low
Parental help with learning English	N/A	N/A	Parents and older brother helped test vocabulary	N/A
Years of English learning in *bushiban*	Never	N/A	Never	N/A
Overall strategy use	Mean = 3.45 (high use)	Used 8 out of 36 strategies, one of the high frequency users	N/A	N/A
Specific strategies (or strategy category)	Reported high use of social strategies (Mean = 4.00)	Only student who used rich and vivid imagery strategy, skipped more difficult words	N/A	N/A
Dictionary use	N/A	N/A	Never used one	N/A
Favorite class activities	Games, songs & chants, conversation	N/A	N/A	N/A
Difficult parts in learning English	Reading, listening, practice	N/A	N/A	N/A

Kelly - Eastern Region, Medium Proficiency

The main themes evolving from the quantitative and qualitative data included use of Ju-Yin for sounding out words, liking English based on understanding, use of systematic spiral pattern in memorizing and self-testing, exceptional length of time spent on vocabulary task, and sounding words out loud for memorization.

Interviewer: *I noticed that you kept coming back to the first word and started all over every time you finished a word.*
Kelly : *Yes, I have to keep coming back just in case I might forget the words I did.*
Interviewer: *But always in this repeated pattern?*
Kelly : *It is my habit.*

Kelly spoke with a high-pitched voice and wore short hair and long finger nails. She said that she did not like English at the beginning because she did not understand what it meant. It was not until fifth grade that she felt she better understood English and therefore felt English was OK.

Interviewer: *So did you like English when you first started learning English?*
Kelly : *No, I didn't.*
Interviewer: *Why not?*
Kelly : *Because I could not memorize the words and I didn't know how to read.*
Interviewer: *Really?*
Kelly : *The only thing I knew was to look at the pictures. That's all.*
Interviewer: *Did your teacher teach you how to memorize vocabulary?*
Kelly : *No.*

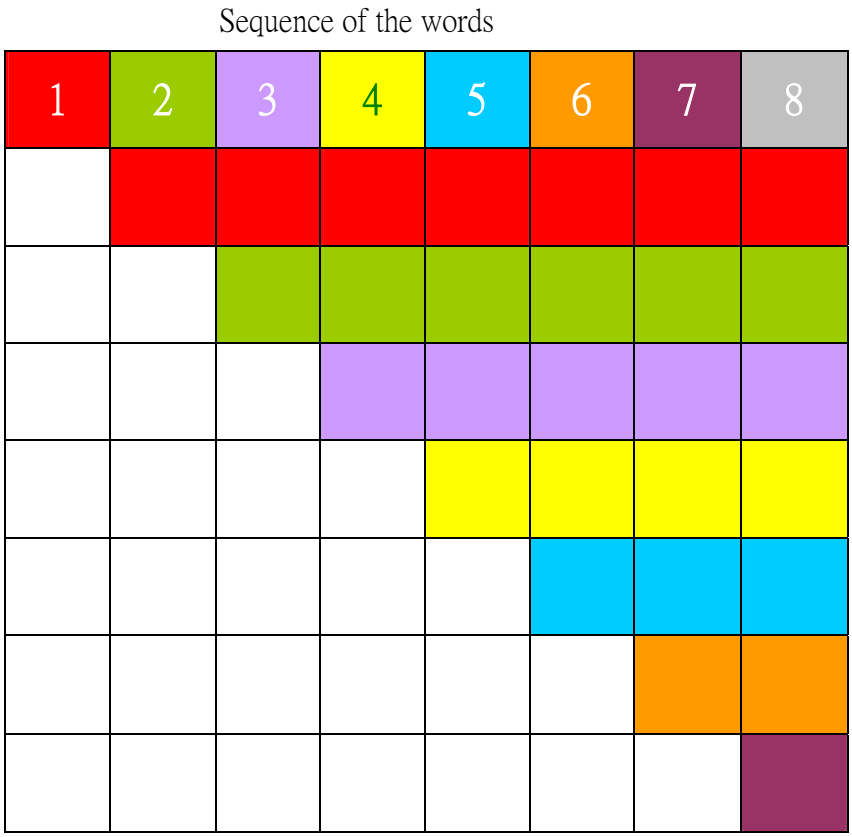
According to Kelly, her teacher never did teach them how to memorize vocabulary. Kelly did not think learning English would be important unless she went abroad to study someday. She said that she studied English on a regular basis on Sundays at her mother's request. When she had any questions, she would ask her mother or her classmates. She would also turn to an electronic dictionary when there was a new word and hit the pronunciation button to listen to how a word was pronounced. "I would then listen and repeat after the pronunciation," Kelly said.

Kelly used Ju-Yin to help her sound out English words. It was a strategy also used by many of her classmates. "I put Ju-Yin beneath the word and use it to help me pronounce the words that I don't know how to pronounce," Kelly said with a smile. She also mentioned that her favorite subject was Chinese and how the Chinese teacher would ask them to memorize the texts. "If you write the word incorrectly, the punishment is to copy it over and over and twice as much for a word that you got wrong on an exam." She actually admitted that she did not dislike this approach.

If there was anything impressive about the way Kelly performed on the vocabulary task, it had to be the loud voice she used as well as the explicit and systematic spiral pattern she used in memorizing the words. Unlike the other participants, Kelly constantly repeated the spelling of the words a number of times in a very noticeable volume as if she was trying to swallow the words alive. After she

finished the second word, she went back to review the first and then alternated between the first and the second one many times before she moved to the third. After she finished repeating the third word, she went back to the first and the second. As shown in figure 5.1, Kelly loudly spelled out each word and kept going back to the first to start all over again. She also self-tested by looking upward and hiding the words with her fingers for each word. Throughout the entire 21 minutes and 48 seconds she spent on memorizing the eight words, she never once sounded out the words except for sounding out the spelling of each word. It was as if she was trying to force the spelling of the words into herself like hammering nails into a wall with a very loud sound. Such hard work did pay off: she achieved an accuracy rate of 92%, by missing only a few letters for a couple of words. The patience and the perseverance she demonstrated for the eight words was beautiful and touching and yet, it revealed a sense of helplessness in trying so hard to achieve her goal.

Figure 5.1. Conceptualization of The Spiral Pattern Used by Kelly.



Since she was memorizing the words in such a systematic spiral pattern, it was only natural that she was able to remember the sequence and the location of each word. She told me that she also remembered all the colors of each piece of clothing on the right hand page of the book. The pants were RED, the shorts were BLUE, the raincoat and the sweater were YELLOW and GREEN! However, when I asked her at one point of the vocabulary task if there was anything in her mind when she was memorizing the words, she answered with a sense of honesty and naivet'e: "Nothing. Just the word." Kelly had in a way proved the old saying, "Where there is a will, there

is a way." If only she could achieve this with less sweat and more efficiency.

Kelly was characterized by her English teacher as a medium-proficient English learner who had never studied in a *bushiban* before. She said that her English teacher had never taught her how to memorize vocabulary and she had obviously developed a system that seemed to work for her, but now as the amount of vocabulary grew bigger, one has to wonder if she will be able to cope with it using the strategies she has been relying on?

Table 5.13

At-a-glance Profile of Kelly. Key Points and Their Sources

Source Area	Questionnaire (Quantitative)	Think-aloud (Qualitative)	Interview (Qualitative)	Teacher (Proficiency level only)
Liking of English	OK	N/A	Did not like it until Grade 5 when she knew how to read English	N/A
Time spent on self study at home	N/A	N/A	30 minutes each week on average	N/A
Proficiency	Self-rating: OK	Accuracy rate on the quiz: 92 %	N/A	Medium
Parental help with learning English	N/A	N/A	No parental help	N/A
Years of English learning in *bushiban*	Never	N/A	Never	N/A
Overall strategy use	Mean = 3.45 (high use)	Used 6 out of 36 strategies	N/A	N/A
Specific strategies (or strategy category)	Reported high use of social strategies (Mean = 4.00)	The only student who used systematic spiral pattern for memorizing and self-testing	N/A	N/A
Dictionary use	N/A	N/A	Sometimes used an electronic dictionary	N/A
Favorite class activities	games songs & chants competition	N/A	N/A	N/A
Difficult parts in learning English	vocabulary pronunciation conversation	N/A	N/A	N/A

Larry - Eastern Region, High Proficiency

The main themes that emerged from the quantitative and qualitative data included strong interest in learning English, lack of awareness in applying sound-letter relationships, enjoyment of challenges for a sense of achievement, and division of words based on knowledge of previously learned words. Below is an excerpt taken form the think-aloud:

Interviewer: *So how did you divide up the word?*
Larry: *I divided it into STRA and TEG and then Y*
Interviewer: *Why was that?*
Larry: *I have memorized STRA before and TEG feels right to me.*
Interviewer: *So does it have anything to do with how each part sounds?*
Larry: *Not really. It's just my impression and feelings for the word.*
Interviewer: *Does it have anything to do with the VOWELS?*
Larry: *No, I am not very interested in pronunciation.*

Larry was a skinny boy; it was hard to tell that he had been taking karate for five years and was a champion in a county contest last year. He started taking English the same time he started his karate lessons. When asked why he liked English, Larry said in a serious manner, "Because I enjoy learning and learning English makes me feel enriched." In addition to regular English classes at the *bushiban* three days a week, he was also taking an extra writing class on Saturdays to practice writing sentences. He

enjoyed the *bushiban* classes even though they were more difficult and challenging than his English classes at school. “When I can do it, I feel a sense of achievement and confidence,” he said. Naturally, he believed that English was very important for school and for his future, something his parents had been emphasizing to him. However, his teacher has never actually taught them how to memorize vocabulary.

Interviewer: *How would you compare the English class between school and the private school?*
Larry : *It is more difficult in private school and when I can do it I feel a sense of achievement and confidence.*
Interviewer: *What about in school?*
Larry : *It is much easier.*
Interviewer: *Then do you feel less challenged and bored sometimes?*
Larry :*Yes, sometimes.*
Interviewer: *So what do you do?*
Larry :*You just have to do whatever the teacher asks you to.*
Interviewer: *What are your favorite English class activities?*
Larry : *Memorizing vocabulary*
Interviewer: *Is that one of the class activity?*
Larry :*Yes. The teacher will have us take time memorizing vocabulary.*
Interviewer: *Like spending 5 minutes to have you memorize the words?*
Larry :*No, she would teach for like 10 minutes and leave the rest of the class for us to memorize vocabulary.*
Interviewer: *Really? Has she ever taught you how to memorize words?*
Larry : *No. She would just ask us to go ahead and do it.*

Larry was the only participant who said that he enjoyed memorizing vocabulary as a class activity. His English teacher in school would allow students about half of the class time (20 minutes) to memorize the vocabulary at the end of each unit. Since

he was able to complete the mission each time, he most likely felt accomplished and that must have been why he enjoyed it. It was only natural to see that he rated his own English proficiency as “VERY GOOD” and the total mean score for his strategy use on the *SILL* was 3.61, indicating that he frequently used strategies for learning English.

Larry did not really take the initiative in studying English at home unless his mother asked him to. Again, like most others, his self study included memorizing vocabulary. His mother later quizzed him to see if he had gotten the words. When he had a question in English, he usually tried to find out the answer by himself first before asking others. Sometimes he used a bilingual dictionary. When he did that, he mainly used it for the Chinese definitions. Interesting enough, according to Larry in the interview, his English teacher, who was a foreigner and could speak only a little Chinese, sometimes used an electronic dictionary to show students the meaning of the words they did not understand.

Larry used a large number of strategies on the vocabulary task. Like many of his peer participants, he repeatedly sounded out the spelling, wrote down the words, sounded out the Chinese definitions, self-tested and broke words into parts. On the paper where he copied the list of the words, he underlined each of them as shown in Table 5.14. It was very interesting to see the way he divided up the words as well as

the reasons he provided for each of the divisions.

Table 5.14

Larry's Division of Words and Reasons for The Division.

	Division of words	Reasons for the division
1	QUESTION-NAIRE	Already knew QUESTION so broke it into two parts
2	STRA-TEG-Y	Had seen STRA before, TEG felt right to him
3	EX-TRAOR-DINARY	Has seen EX and the rest based on impression
4	PER-FOR-MANCE	Has seen PAR, replaced with PER, knew FOR and MAN
5	SE-LE-CT	SE and LE looked alike, just changed from S to L
6	EVA-LUA-TE	EVA and LUA looked alike, changed from EV to LU
7	PER-SON-ALI-TY	Knew PER from PERFOR MANCE, knew SON, knew TY from the endings of the numbers
8	RE-SPE-CT	Has seen RE and SPE

Larry said that he had learned both phonics and the KK phonetic system and sometimes used phonics to sound out words, but not very often to memorize words. According to the reasons he provided for the division of the words, it seemed that there were four principles he based the division on: (1) knowledge of previous words, such as QUESTION in QUESTIONNAIRE, (2) impression of word clusters previously seen, such as STRA, EX, FOR, MAN, PER, SON, TY, SE and SPE, (3) parts that looked similar, such as SE and LE, EVA and LUA, and (4) his own instinct, such as TEG.

It was amazing to see that such a high-proficient learner who had been studying English for five years did not have the idea of dividing up words based on SOUNDS.

As quoted at the beginning of his case profile, Larry even made it clear that the way he divided up the words had nothing to do with the sounds of the words since he was "not interested in pronunciation." Interestingly enough, when he was taking the quiz given by me, for the words he could not remember very well, he asked me to read the words to him in English. He was not able to spell out some of the words until they were read to him in English. Could it be possible that he was actually applying the sound-letter relationship but he was not aware of it? This will be discussed more later in the final chapter.

Another point worth noting is the fact that he treated the letters as symbols while he was trying to memorize the words. Rather than dividing the words into parts that "sound alike", he divided them into parts that "look alike." This has been a strategy identified by Billy. The question raised here is: if students do not apply any phonics or KK phonetics to sound out words to help them memorize, does it mean that the letters in each word are being treated as symbols?

Larry was able to spell out most of the words on the quiz, achieving an accuracy rating of 88%. He rated his English proficiency as "OK" and said he liked English very much. Like most others, Larry's favorite class activity was games, followed by songs and chants and conversation. He found that reading, listening, and practice were the most difficult parts of learning English.

Table 5.15

At-a-glance Profile of Larry. Key Points and Their Sources

Source Area	Questionnaire (Quantitative)	Think-aloud (Qualitative)	Interview (Qualitative)	Teacher (Proficiency level only)
Liking of English	Like (very much)	N/A	Always enjoyed learning English	N/A
Time spent on self study at home	N/A	N/A	1 hour each week on average	N/A
Proficiency	Self-rating: OK	Accuracy rate on quiz: 88 %	N/A	High
Parental help with learning English	N/A	N/A	Mother helped test vocabulary	N/A
Years of English learning in *bushiban*	More than 3 years	N/A	6 years	N/A
Overall strategy use	Mean = 3.61 (high use)	Used 9 out of 36 strategies, one of the highest frequency users	N/A	N/A
Specific strategies (or strategy category)	Reported high use of affective strategies (mean = 4.33)	Skipped more difficult words, divided words based on previously learned words	N/A	N/A
Dictionary use	N/A	N/A	Rarely used a dictionary	N/A
Favorite class activities	Videos, games, quiz	N/A	N/A	N/A
Difficult parts in learning English	Grammar, reading, conversation	N/A	N/A	N/A

Synthesis of Results

The profiles in this chapter are mainly based on qualitative findings from the interviews and the vocabulary performance task. The qualitative results helped provide rich and complicated profiles of the Taiwanese EFL elementary school learners. Emerging from the data were several key findings. First, a number of vocabulary learning strategies were identified in the vocabulary performance task. Second, the student interviews revealed the significance of vocabulary learning in their English learning experience. Third, prior English learning and students' proficiency levels seemed to play a significant major role in the appropriate and effective use of vocabulary learning strategies. These findings will be further explained in the following section.

EFL Elementary School Students' Vocabulary Learning Strategies

A total of 35 distinct vocabulary learning strategies, as shown in Table 5.16, were identified from the vocabulary performance task. The results indicated the variety and range of learning strategies used by the 12 participants while performing the vocabulary task. These strategies were further put into six strategy categories:

(1) Understanding the meaning of words - using L1, using pictures (4/35)

(2) Sounding out words - sounding out words based on KK phonetics, phonics, Ju-Yin, or previously known words (3/35)

(3) Emphasizing the words - repeatedly spelling, repeatedly writing, underlining (7/35)

(4) Association of the words - using imagery, associations, story-making, sequencing, and location of words (10/35)

(5) Analyzing the words - dividing up words (5/35)

(6) Metacognitive aspects – self-testing, using a spiral pattern, overviewing, skipping difficult words (6/35)

The students' most frequently used strategy of all was spelling out words quietly in their mind. Most participants spelled out the words either quietly, softly or loudly, depending on individual habit. Most of the participants did not sound out the words aloud, according to what they had told me in the performance task. Even those who did only sounded out what they already knew how to pronounce. They failed to sound out the words for two possible reasons: (a) they said they did not know how to do so, or (b) they knew they could still memorize the words without knowing how to pronounce them. Many of them memorized the words by writing them down, dividing them, and making associations. Several special strategies appeared: for example, Frankie's use of "relatives", Ivy's use of story-making and Kelly's highly systematic use of a spiral pattern in memorizing and self-testing.

According to the results, only three students (Gabi, Jenny and Kelly) created

imagery in their minds during the process of the vocabulary task. However, the four students who were given the “challenge words” only had the words to look at instead of words and pictures given to the low- and medium-proficient learners. In terms of metacognition, some students were very conscious of keeping track of what they memorized by constantly testing themselves, which seems to be a very common practice by the EFL elementary school students (Kung, 2004; Lin, 2000). In my own experience, when given a list of words, students tend to start from the first word on the page without looking at the whole list. Billy was the only one of the 12 participants who consciously took an overview of all the words before starting.

Upon further analysis of the strategy categories which encompass the 35 strategy items, it was found that the most frequently used one was emphasizing the words (25.6%). These were mostly very basic and not cognitively demanding strategies which aimed at repeating the words and emphasizing the words so that they could memorize the words. Emphasizing words was also one of the six strategy categories that was used by all three levels of proficient as shown in Table 5.17. It was also found that the high proficient learners used many more analyzing strategies than the other two groups, and they also used more association strategies than the other two proficiency levels. The low-proficient learners, however, used more strategies than the medium- and high-proficiency groups to understand the meaning of the words.

Interestingly enough, it was the medium proficient learners who used the most metacognitive strategies in vocabulary learning compared to the other two groups. Another important finding is the fact that none of the low proficient learners used any strategies to sound out words. However, there is a tendency with the higher proficiency levels, the greater the number and frequency of strategies used.

Table 5.16
Total Strategies Identified From The Vocabulary Performance Task

No.	Description of strategies	Name of strategies	Strategy category	Students who used this strategy
1	Quietly say the Chinese definitions	Use of L1	Understanding the meaning of words	301
2	Sound out Chinese definitions	Use of L1	Understanding the meaning of words	201, 403
3	Guess words by Chinese definitions	Use of L1	Understanding the meaning of words	202
4	Look at picture for meaning	Use of pictures	Understanding the meaning of words	101, 202, 301, 401,
5	Spell out words quietly in mind (without mouthing)	Spelling	Emphasizing words	101, 102, 201, 301, 302, 303, 401
6	Spell out words quietly	Spelling	Emphasizing words	103, 202
7	Spell out words out loud	Spelling	Emphasizing words	402, 403
8	Write down words to practice	Writing	Emphasizing words	102, 103,201,302,
9	Write down words to self-correct	Writing	Emphasizing words	102
10	Write down Chinese definitions	Writing	Emphasizing words	103, 201
11	Underline words in parts	Underlining	Emphasizing words	403
12	Sound out words already known	Sounding out words	Sounding out words	102, 203, 302, 303, 403
13	Use KK phonetics (set of symbols for sounding out English)	Sounding out words	Sounding out words	303
14	Use phonics	Sounding out words	Sounding out words	103
15	Look at picture for the imagery in mind	Use of pictures	Association of words	301, 402
16	Create own imagery	Imagery	Association of words	301, 401
17	Sequence the words	Sequencing	Association of words	101, 301, 402
18	Locations of words	Locations	Association of words	101, 402
19	Associate with names of people	Association	Association of words	203
20	Associate with previously learned words	Association	Association of words	102,103, 203, 303, 403
21	Associate with words that sound alike	Association	Association of words	203
22	Associate with words that look alike (relatives)	Association	Association of words	203
23	Associate with previous life experience	Association	Association of words	401
24	Use story-making	Story-making	Association of words	303
25	Divide up words based on sounds	Dividing up words	Analyzing words	103, 203, 403
26	Divide up words based on syllables	Dividing up words	Analyzing words	203, 303
27	Divide up words based on previously learned words	Dividing up words	Analyzing words	102, 103, 202, 403
28	Divide up words based on number of letters	Dividing up words	Analyzing words	301, 401
29	Divide up words based on instinct	Dividing up words	Analyzing words	203, 302, 403
30	Self-test by mouthing	Self-testing	Metacognitive aspects	202, 402
31	Self test by writing on paper	Self-testing	Metacognitive aspects	102, 301
32	Spiral pattern in memorizing words	Use of spiral pattern	Metacognitive aspects	102, 202
33	Systematic spiral pattern	Use of spiral pattern	Metacognitive aspects	402
34	Take an overview before starting to memorize	Overviewing	Metacognitive aspects	102
35	Skip difficult words	Skipping	Metacognitive aspects	401, 202, 303, , 403

Table 5.17

Strategy Category and Frequency of Use Based on the Performance Task Results.

Strategy category	Number of Strategy items	Percentage of categories	Number of frequency	Percentage of frequency	Strategy used by which proficiency level
Association of the words	10	28.6%	19	24.1%	High : 8 Medium: 4 Low : 7
Emphasizing words	7	20.0%	19	24.1%	High : 6 Medium: 7 Low : 6
Metacognitive aspects	6	17.1%	12	15.2%	High : 2 Medium: **8** Low : 2
Analyzing the words	5	14.3%	14	17.7%	High : **9** Medium: 3 Low : 2
Understanding the meaning of word	4	11.4%	8	10.1%	High : 1 Medium: 2 Low : 5
Sounding our words	3	8.6%	7	8.8%	High : 5 Medium: 2 Low : **0**
Total number	35	100%	79	100%	High 31 (39.3%) Medium:26(32.9%) Low :22(27.8%)

Vocabulary Learning as a Key to English Learning

One of the most crucial results emerging from the interviews was the significant role played by vocabulary learning in the students' overall English learning experiences in discussion with students in the interviews. Students seemed to believe that English learning was ALL about vocabulary learning. When asked about what aspects of English they studied at home if they ever did, most of them said that they memorized and reviewed vocabulary. When asked about the favorite games used by their teachers in the classroom, the most popular ones were vocabulary games. When asked about how their parents or siblings helped them, if at all, with their learning, "testing vocabulary" was almost a unanimous answer. Furthermore, when students expressed how much they liked English, some said that they enjoyed it a lot in the beginning, but later, as the amount of vocabulary increased and as English became more challenging and more difficult to understand, their interest decreased. A few also indicated that English was more fun if they could play games in the classroom. In other words, if English was easy, they could understand. If they understood, they enjoyed it. They enjoyed it more if there were games. Although vocabulary was very important to the participants and could be seen as one of the most difficult parts of learning English for the majority of students (as revealed by the findings of the background questionnaire), it seemed, based on the discussion with the participants,

that the majority of school teachers had not taught them how to learn vocabulary.

Furthermore, there was another result revealed by the interviews regarding how students coped with difficulties in learning vocabulary. When asked what they would do if there was a word they did not understand, most students' first reaction was to ask someone else, such as parents or siblings, teachers or classmates. If these people were not available, they would then go to a dictionary for help. Most of them looked up new words in either a bilingual or an electronic dictionary, and dictionary use was either very infrequent or limited only to the search for the Chinese definition. The five participants who owned an electronic dictionary also clicked to hear the pronunciation and repeated it afterwards. Among all 12 participants, Jenny (ID 301) was the only one who did not have any kind of dictionary. Ivy (ID 303) was the only one who demonstrated advanced and skillful use of her electronic dictionary. Frankie, due to his eight years of learning, was the only one who had been using an English-English dictionary, i.e., a monolingual dictionary. Neither school teachers nor parents or siblings really taught the participants how to use a regular dictionary except for the necessary alphabetical entry.

To sum up, based on the results, vocabulary learning played a key role in the students' beliefs and attitudes about liking of learning English. With such limited use of the dictionary as a study tool and the lack of instruction in either how to use a

dictionary or how to memorize vocabulary, it is clear that English teachers need to take positive actions in supporting their young learners. Further discussion will be conducted in the final chapter.

Prior English Learning and Proficiency Levels in Regard to Vocabulary Learning Strategies

Another key result disclosed the positive linear relationships between the number and frequency use of vocabulary learning strategies used by each of the three proficiency levels in (a) students' prior English learning (b) students' proficiency levels, and (c) students' accuracy rate on the vocabulary task. As shown in Table 5.18 and 5.19, students' performance on the vocabulary task was also indicated by (a) the proficiency levels, (b) the accuracy rate on the quiz, and (c) frequency of strategies used. Several relationship patterns occurred here for each of the proficiency levels:

(1) The higher the proficiency level, the more prior English learning

(2) The more prior English learning, the higher the accuracy rate.

(3) The higher the accuracy rate, the higher the frequency of strategies used

(4) The higher the frequency of strategies used, the higher the proficiency level

Such results again corresponded with the previous literature regarding proficiency and autonomy of strategy use. Although it was not true that all high proficient-learners used a higher frequency of strategy use, the issue with quality use of strategies to

accomplish a given task is shown in this case. The quality and relevance of using the right strategy at the right time rather than the sheer number of strategy types used was very important in determining the participants' performance on the vocabulary think-aloud task. For example, from the previous description of the 12 student profiles, there was also evidence shown that the high-proficient learners did not necessarily use the highest number of strategies, yet they were able to apply strategies appropriately to achieve a higher accuracy rate on the quiz afterwards.

Table 5.18

Participants' Proficiency Level, Prior English Learning, Time Spent on Task and Accuracy Rate of the Quiz

Name	ID No.	Prior English learning	Proficiency level	Time spent on the task	Accuracy rate	Number of strategies used
Charlie	103	4	High	8"15	97%	7
Frankie	203	8	High	3"20	100%	8
Ivy	303	6	High	2"37	100%	7
Larry	403	5	High	6"43	88%	9
Billy	102	None	Medium	8"03	100%	9
Eddie	202	1	Medium	5"10	83%	7
Henry	302	3	Medium	6"17	75%	4
Kelly	402	None	Medium	21"48	92%	6
Alex	101	None	Low	5"45	75%	4
Daisy	201	None	Low	14"30	33%	4
Gabi	301	1	Low	6"12	83%	8
Jenny	401	None	Low	9"13	46%	6

Note: Students who used the Challenge Words were marked with a * next to their ID number

Table 5.19
Average of Time, Accuracy and Number of Strategies used

	Years of prior English learning	Time spent on the vocabulary task	Accuracy rate	Frequency of strategies used
High	5.75	20”55	96.3%	39.3%
Medium	1.0	41”18	87.5%	32.9%
Low	.25	35”40	59.3%	27.8%

Conclusion

This chapter presented the qualitative results from interviews and vocabulary performance task of Phase II along with *SILL* mean and other findings from the quantitative results. Results from the vocabulary performance task and the interviews were described in each case profile, followed by a summary. These results seem to suggest a close relationship between vocabulary learning and three other variables: students’ liking of learning English, students’ prior English learning, and students’ proficiency levels. The next and final chapter will present further discussion regarding the reasons behind these relationships and the implications for both classroom instructions and future research directions.

CHAPTER 6

REVIEW OF RESULTS, DISCUSSION, IMPLICATIONS, AND RECOMMENDATIONS

Introduction

This final chapter of the dissertation provides a brief review of the results of the current quantitative and qualitative study on language learning strategies used by EFL elementary school students in Taiwan, based on Chapters 4 and 5. I then present a thematic discussion of the major findings, provides implications for theory and pedagogical practice, and makes recommendations for future research. The chapter ends with a conclusion to the whole study.

Brief Review of Previously Presented Results

This section, which might be helpful to readers who do not want to constantly refer to those chapters while reading this one, reviews the following information: background of the participants, total strategy-use mean and means for the six strategy categories, relationships between the strategy use (total and by six categories) and eight key variables, and results of the students' think-alouds and interviews.

Background of the Participants

A total of 1,191 students participated in the study, with 613 boys and 578 girls. About a quarter of the total sample came from each of the four geographical areas in Taiwan. Most (65.5%) of the students' fathers graduated from high school or lower, 31.2% from college,

and 3.3% from graduate schools. Similar findings also appeared for mothers' educational levels: 72.6% of them were high school graduates or lower, 25.4% were college graduates, and only 2.0% had a graduate degree.

Most (61.1%) of the total number of participants had studied in a private English school (*bushiban*) for at least three years, 16.5% studied for more than three years, and only 22.5% said they had never studied English at a *bushiban*. Almost half (49.3%) said they would not choose to go to a *bushiban* if they were given the choice, but 50.7% said they would. One-tenth (10.8%) of the participants rated their English proficiency as poor, 14.2% as good or very good, and 75% as just OK. About one out of five (18.6%) either liked learning English or liked it very much, while 44.0% thought it was just OK and 37.4% reported disliking or very much disliking it.

English was ranked as number four among students' favorite school subjects behind physical education, computers, and Chinese. About one-twelfth (8.2%) ranked English as their most favorite, 10.5% as their second favorite, and 13.0% as their third favorite subject. With regard to their favorite English class activities, games were number one, followed by competitions, and then quizzes. As for the greatest challenges in learning English, grammar was ranked as number one, vocabulary as the second most challenging, and conversation as the third most challenging.

Total Strategy-use Mean and Means for the Six Strategy Categories

The total mean strategy use for the entire group of students was 2.9 based on a five-point Likert scale, meaning medium strategy use. The results showed that more than half reported a medium range of use, while one-fifth reported a high range of use and one-fourth reported a low range of use. The six strategy categories had means of 2.9 to 3.2, all in the medium use range. The most frequently to the least frequently used categories were affective (3.2), compensation and social (3.1), metacognitive (3.0), and cognitive and memory (2.8). Interestingly, in Taiwanese university EFL studies, memory strategies were similarly among the least frequently used (Chen 2001; Yang 1992).

The Five Most and Least Used Strategies

The five most often used strategies in this study were asking for help, asking for slower tempo/repetition/clarification, analyzing errors, noting progress, and trying to relax. The five least often used strategies were reading books in English, using flash cards for learning new words, learning new words in sentences, using English computer programs, and organizing time to study English.

Comparison with Two Other Elementary School Learning Strategy Studies

The medium range of strategy use (mean = 2.9) reported by the students in the current study was identical with the mean score reported by the pilot study of 359 other Taiwanese elementary school children learning English as a foreign language (Lan & Oxford, 2003) but lower than the mean score of 3.5 reported by the Canadian study of 102 Francophone

children learning English as a second language (Gunning, 1997).

Relationships between the strategy use (total and by six categories) and eight key variables

Pearson correlations indicated positive correlations between total strategy use and two variables, namely students' degree of liking English (.57) and their self-rated English proficiency (.42). Liking English was also found to be correlated with all six strategy categories at above the .30 level. In addition, proficiency self-rating also showed correlations with four strategy categories at above the .30 level. In terms of correlations among the independent variables, positive correlations emerged between fathers' education and mothers' education (.60), between liking English and proficiency self-rating (.46), and between proficiency self-rating and prior English learning (.37).

In the analysis of variance, seven of the eight independent variables, i.e., all but geographic area, revealed statistically significant relationships ($p<.000$) with either total strategy use or strategy use in some or all of the six categories. These seven independent variables were liking of English, self-rated English proficiency, self-choice of studying English in a private English institute, prior English learning, gender, fathers' education, and mothers' education. Of these seven, five had significant relationships with overall strategy use and *all* six categories of strategy: liking of learning of English, self-rated English proficiency, self-choice of studying English in a private English institute, prior English learning, and gender.

Multiple regression results were more enlightening than ANOVA findings. They narrowed down the number of seemingly crucial independent variables, thus clarifying the situation. Standardized regression coefficients, or beta-weights, show the expected change in the dependent variables and frequency of strategy use, expressed in standard scores and associated with a change of one standard deviation in an independent variable, while holding the remaining independent variables constant (Newton & Rudestam, 1999). The beta-weight is not a measure of the unique variance explained by each independent variable, but beta-weights are useful in showing the relative importance of each of the independent variables. Liking English had a beta-weight of .42 and was by far the best predictor of strategy use. It was followed (a) students' self-choice of English learning in private institutes (beta = .16), (b) self-rated English proficiency (.14), (c) fathers' education (.09) (d) prior English learning (.06), and gender (.06). Thus, the largest beta-weights, signifying the best predictive value, were those of liking English, self-choice of learning English in private institutes, and self-rated proficiency.

Results of the Students' Vocabulary Performance Task and Interviews

A total of 35 vocabulary-learning strategies were identified in the vocabulary performance task. The 12 participants employed different strategies to cope with the vocabulary task. Student interviews revealed important information concerning the student's experience, beliefs, and attitudes about learning English. All these results seem to

suggest a close relationship between vocabulary learning and three other variables: students' liking of learning English, their prior English learning, and their proficiency levels.

Thematic Discussion of Findings

This section has reviewed the findings briefly. We now turn to a thematic discussion that synthesizes the most important findings from the quantitative and qualitative phases. As the reader knows, this study not has only investigated factors treated in previous research (such as gender, liking of English, and proficiency level), but has also explored other variables that have a relationship to students' strategy use. According to the ANOVA and multiple regression results, the most statistically significant (and to this researcher most important) relationships with strategy use were found for the following six independent variables: liking of learning English, self-rated English proficiency, self-choice of learning English in a private institute, prior English learning, fathers' education, and gender. The qualitative phase of the study considered all of the background variables in relation to 12 students' think-aloud results and interview responses.

Theme 1: Synthesis of Quantitative and Qualitative Findings on Degree of Liking English

This study included the variable of the individual student's "liking English learning," which was, in this researcher's mind, synonymous with "interest in and enjoyment of English learning." Many studies in education and psychology have explored the importance of individual interest in learning. According to Prenzel (1988) and Schiefele (1990), *individual interest* is the degree to which the learner is interested in certain topics, subject areas, or activities. It is also defined as an individual's long-term orientation toward a type of subject, activity, or an area of knowledge (Abu-Rabi, 2003). Previous research has shown that individual interest contributes to reading comprehension and the learner's motivation in engaging in reading (Abu-Rabi, 2003). Since interest is a key part of motivation for learning, it is important to note that numerous studies reveal a significant relationship between motivation and language learning strategy use (Oxford, 1996a, 1996b).

Among the 1,191 students participating in the quantitative part of the study, the positive linear correlations found between students' liking of English and their use of language learning strategies reveal the important role played by students' liking of English learning. ANOVA and multiple regression results also supported the important relationship between students' liking of English learning and frequency of strategy use.

In the 12 qualitative interviews, four of the participants expressed their ongoing liking

of English learning from the beginning of their English studies to the present. Their liking of English learning was also very clear from the *Background Questionnaire.* These four English learners had the following characteristics that distinguished them from the other eight students in the subsample:

- They used strategies more frequently, according to the *Taiwanese Children's SILL* and according to the think-aloud task and the additional interview.
- They were stronger English learners, as witnessed by outstanding performance on the vocabulary think-aloud task, self-rated proficiency, and teacher-rated proficiency, the last of which was not officially used as a variable but which was gathered as a piece of corroborative data.
- They had been studying English from four to eight years, which was longer than the other eight learners, according to the *Background Questionnaire.*

The results above, which come from both the quantitative and qualitative aspects of the study, indicate that liking of English learning was a key variable. This is extremely important for teachers to recognize. Emphasis needs to be paid to presenting language instruction so that students will want to learn the language and enjoy doing it.

Theme 2: Synthesis of Quantitative and Qualitative Findings on Self-Rating of English Proficiency

The current investigation into elementary school students' language learning strategies use also identified another important predictor variable – students' self-rated English proficiency. According to the findings, the higher the students rated their English proficiency, the more strategies they reported employing in learning English. Numerous studies have already reported a significant relationship between students' proficiency levels and their strategy use (see Oxford, 1996b for relevant bibliographies). Although proficiency levels can be determined by different measures, such as standardized tests, teachers' grading and students' self-rating, the results all lead to the same conclusion: more highly proficient learners tend to be more conscious of their mental processes of learning and use a greater variety of and more appropriate strategies with learning tasks (Gu, 1994; O'Malley, Chamot, Stewner-Manzanares, Russo, & Kupper, 1985a; Kojic-Sabo & Lightbown, 1999).

Paradoxically, there are some students who have become so highly proficient in the language that they no longer use many strategies in a conscious way. For such students, a number of their strategies (conscious learning-improvement actions) are either no longer necessary or no longer conscious, i.e., are now automatic and habitual because of repeated practice. Former strategies, i.e., actions that have become unconscious, automatic, and habitual, are known as "processes" (Oxford & Celce-Murcia, 1992), not strategies. The current study did not include students like this, however. This study uses the term

"high-proficient" in the context of elementary school English learning, so "high-proficient" in this investigation does not suggest any loss of strategies through habituation or automatization.

It is reasonable to believe that students' self-rating is in a way a manifestation of their self-efficacy. Research has also provided evidence in how self-efficacy is related to more positive learning results. Chamot et al. (in Oxofrd, 1996) have found that self-efficacy is raised when students receive language learning strategy instruction.

Theme 3: Synthesis of Quantitative and Qualitative Findings on Self-Choice

It is crucial to emphasize again the specific context of EFL learning in Taiwan with its prevailing social value placed on the importance of English education outside of schools in private English institutes. Parents also believe in the doctrine of "the earlier, the better" and as a result, many children start learning English as early as kindergarten, i.e., four years old. Children often are "made" or even "forced" by their parents to attend private language schools, as Eddie, one of the 12 Phase II participants, stated in the interview. Although many language learners who are made to go to private language schools at early ages (such as Charlie, Frankie, Ivy, and Larry, the four highly proficient learners in the interviews), end up appreciating the experience, other students regard this experience negatively, as noted in the interview findings. After all, not every child is interested in going to a private

language school at a young age.

I explored the relationship of students' strategy use and their self-choice of studying English in a private language school. It was found in the study that those who said that they would choose to study English in a private institute used significantly more strategies for learning English than those who said they would not. This finding on self-initiative for learning was similar to that found in a study investigating how prior English learning affects first year junior high school students' English achievement in listening, reading, speaking, and writing in Taiwan (Lin, 2002). Lin reached the conclusion that those "who were self-driven in learning English scored significantly better than those who were driven by the schools in all four language tests" (p. 65). In other words, when learning is self-initiated, there is more application of strategies which might lead to a more successful learning outcome.

Theme 4: Synthesis of Quantitative and Qualitative Findings on Prior English Learning

The question can be raised as to whether studying in a private English institute makes a difference in students' language learning strategy use. Chow (1997) concluded that first year junior high school students in Taiwan with prior English learning outperformed those without prior learning in listening, speaking, reading, and writing proficiency tests. They also tended to be more motivated and to have a more positive attitude toward learning

English. Similar results also emerged in two other Taiwanese studies investigating first year junior high students' English achievement in relation to prior English learning (Lin, 2002) and their family background (Chen, 2003). These two studies found that the more prior English learning the students had, the better their achievement in English.

In the current study's findings from the think-aloud task and the interview taken together, prior English learning appeared to be associated with students' strategy use for learning English. Those of the 12 students in the subsample who had studied English longer (as shown by the *Background Questionnaire)* reported using more strategies in the think-aloud task than those with a smaller amount of prior learning. Based on both the quantitative and qualitative results, it seems that prior English learning is related to high frequency of strategy use and high English proficiency and achievement (Chen, 2003; Chow, 1997; Lin, 2002).

Similarly, during the think-aloud task, high-proficiency learners, who had more prior learning, used more strategies than did the medium- and low- proficiency learners, who had less prior learning. In other words, these results seem to suggest that prior learning in a private English institute, i.e., parents' investment in their children's English education outside of schools, does contribute to better English learning.

Theme 5: Synthesis of Quantitative and Qualitative Findings on Gender

Gender differences in language learning strategy use have long been of research interest, ever since Oxford started tracking them across many studies in 1988 (Oxford, Nyikos & Ehrman, 1988). Most studies have been in agreement in their findings that female learners often tend to use significantly more strategies for language learning than male learners (Ehrman & Oxford, 1989; Green & Oxford, 1995; Oxford & Nyikos, 1989; Oxford & Nyikos & Ehrman; 1988; Sy, 1994; Yang, 1993; Zoubir-Shaw & Oxford, 1995). Ehrman and Oxford (1989) found that compared with male learners, female learners used more of the following four types of strategies: (a) general study strategies, (b) functional practice strategies, (c) searching for and communicating meaning strategies, and (d) self-management strategies. Similar results also emerged for a few Taiwanese studies (Wang, 2002; Yang, 1993). However, there no significant gender difference in strategy use found in two other Taiwanese studies (Luo, 1998; Peng, 2001).

The current study indicates a significant difference between boys and girls in the frequency of strategy use. Girls in this group reported significantly more strategy use than boys, with findings identical to those found in the pilot study (Hsu & Huang, 2004; Lan & Oxford, 2004; Su, 2003) as well as in two recent Taiwanese elementary school studies (Hsu & Huang, 2004; Su, 2003). However, no gender difference was particularly evident in the results from the 12-participant qualitative data.

Theme 6: Synthesis of Quantitative and Qualitative Findings on Fathers' Education

Since there was a relatively strong (.60) correlation found between fathers' and mothers' education, this relationship probably explains why mothers' education was not significant in the ANOVA and was not as good a predictor as others, in accounting for students' strategy use in the regression analysis. As a result, fathers' education became more of an indicator in the differences of students' use of language learning strategies. Those students whose fathers had higher educational levels reported using significantly more strategies than those whose fathers had lower educational backgrounds.

Educational levels are often associated with socio-economic status (SES). Chen (2003), who explored the relationships between seventh grade students' English proficiency differences and their family backgrounds, found that SES was a significant factor. Students with high SES had higher proficiency in English than those with middle and low SES. However, no differences were found between middle SES and low SES in their English proficiency in Chen's study.

Theme 7: Synthesis of Quantitative and Qualitative Findings on Vocabulary Learning Strategies in Regard to Proficiency Levels and Prior English Learning

For the 12 children in Phase II, the qualitative phase, relationships appeared between students' strategy use and both proficiency levels (self-rated proficiency on the *Background Questionnaire* and teacher-rated proficiency for the 12 participants) and prior English learning. It was evident that those who had longer prior English learning and higher self-rated proficiency reported more strategy uses on the *SILL,* as evidenced by the ANOVA results.

The qualitative data also indicated a between the frequency of vocabulary-learning strategy use by those from each proficiency level and their prior English learning (as shown in Table 5.17 from Chapter 5). Those of the 12 who had studied English longer had higher proficiency and used strategies more frequently than those from the other two proficiency levels (high: 44.9%, medium: 33.3%, and low: 21.8%). In other words, there was a relationship between the frequency of strategies students applied on the vocabulary task and both self-rated English proficiency and prior English learning.

For individual differences, however, it was more the quality of strategy use that made the difference on their performance on the vocabulary quiz. Looking at previous studies that explore vocabulary learning strategies and students' proficiency and achievement, Kojic-Sabo and Lightbown (1999) found that "more frequent and elaborate strategy use was associated with higher levels of achievement" (p.176). A similar conclusion was also

reached by Gu and Johnson (1996), who contended that higher proficiency learners used more vocabulary learning strategies than lower proficiency learners did. In short, the results found in this study showed a correspondence in terms of the relationship between vocabulary learning strategies and proficiency and achievement (in this study, involving the students' performance on the vocabulary quiz).

Theme 8: Synthesis of Quantitative and Qualitative Findings on Vocabulary Learning as Central to English Learning

As shown in the *Background Questionnaire* regarding students' perceptions of the most challenging parts of learning English, vocabulary learning was ranked as the second most difficult part agter grammar. From the interviews, it was also found that students' liking of learning English depended largely on whether vocabulary learning was easy or hard, which again depended on the number of vocabulary words they needed to learn and the length of each word. In other words, vocabulary learning was regarded almost as an equivalent of and synonymous to English learning. This is particularly true with beginning English learners who start their English learning journey through the building blocks of vocabulary. The question raised here is whether teachers realize this and therefore incorporate vocabulary learning strategies into their classroom instruction. In the interviews, most of the students reported that their English teachers had never explicitly taught them how to learn vocabulary. Our findings here help with further understanding of the important

role vocabulary learning plays in students' learning English in general. Additionally, it is crucial for teachers to realize what challenges face our young EFL learners and to temper their instructions to accommodate the specific needs of their learners.

Theme 9: Synthesis of Quantitative and Qualitative Findings on Students' Heavy Reliance on Others for Help with Vocabulary Learning

One of the most important findings from the current investigation based on the student interviews was the fact that many students relied heavily on others for help with the questions they had in English. For most students, their first reaction when they had a question (mainly regarding vocabulary, such as not knowing the meaning of a word or not knowing how to pronounce a word) was to "ask for help". Very few of the interviewees said that they would try to answer their own questions first by using a dictionary. However, most of the students had never been taught how to use a dictionary. On the one hand, this response corroborates the findings of the *SILL* that "asking for help" was the most frequently used strategy among all 31 items (Lan & Oxford, 2003).

On the other hand, such heavy dependence on others for solutions also revealed several issues. First, students might be inclined to rely on family members, teachers or classmates for help because of the availability of such resources around them. Second, students might seek help from others simply because they were not equipped with the strategies to answer the questions by themselves. Finally, students might not know that they

should try to figure out a way to answer their own questions and solve their own problems first before going to someone for help. The paradox here is that asking for help could be interpreted as a positive social strategy, and yet it could also imply the students' lack of ability to solve problems. As mentioned in the previous section, vocabulary learning basically represents the major aspects in learning English for most of the participants, and it was also ranked as the second biggest challenge for most of the students. Nevertheless, most of the teachers did not include systematic teaching of vocabulary in their instruction and had not taught their students how to use a dictionary. As a result, students basically had not been trained to use any specific strategies to approach vocabulary learning, including the basic skill of using the dictionary as a tool. It is also significant that the positive use of one strategy (asking for help) ironically reveals the truth of a potentially negative instructional weakness in this case (not teaching how to use a dictionary). Without probing into the issues further by using student interviews, such potential problems would not have been revealed.

Theme 10: Synthesis of Quantitative and Qualitative Findings on Metacognition -- of the Same Coin

Another important finding from the qualitative data based on the student interviews was the students' lack of initiative-taking in planning for self-studying. This result corresponds with the fact that one of the least used strategies among the 31 items on the

SILL was to organize time to study English. Interesting enough in the student interviews, of those who had been attending private English schools (7 out of 12), five reported that they did not take the initiative in self-studying at home because they simply had had enough of it with two hours of English studies at their own schools and another four to ten hours at the private English schools. This may sound justifiable and reasonable; however, most of the students were not metacognitively aware of the possibility of taking the initiative in planning and managing their own learning. Similarly, those who had never studied in a private English school either did not take the initiative in self-studying or would only sometimes do so at their parents' request. For most of the students, English learning was "arranged" by their parents, mainly their mothers, who not only made decisions as to which private school to go to but also supervised and pushed their children to study at home. It is very important to see that self-choice of studying English in a private school had an impact on the students' use of language learning strategies. Previous literature also shows evidence that learners' vocabulary size seemed related to (a) their self-initiative towards learning, (b) their skillful use of a dictionary, (c) their willingness to spend time practicing newly learned items, and (d) remembering words in semantically meaningful groups (Gu & Johnson, 1996). In the same vein, Kojic-Sabo and Lightbown (1999) also concluded that "more frequent and elaborate strategy use was associated with higher levels of achievement, where lack of self-reported effort on the students' part was linked to poor performance" (p. 176).

While students tended to show a lack of metacognition in planning and managing their own English learning, we also need to be reminded of the fact that two of the five most frequently used strategies were in the metacognitive category. Students were very aware of error-making and tried to avoid the same errors again as well as showing concern about the progress they made in learning English. Such metacognitive consciousness is likely to come from the time-honored tradition of the Grammar Translation method and the extreme emphasis placed on error-making in the Taiwanese culture. What is revealed here is the two extremes in the same subject. In other words, students show a good sense of metacognition in certain areas but a lack of metacognition in other areas.

Theme 11: Synthesis of Quantitative and Qualitative Findings on Specific Strategies for Vocabulary Learning

In relation to vocabulary learning strategies, one more interesting finding emerged from comparing the two sets of results from the quantitative and qualitative data. On the *SILL*, two of the least frequently used strategies associated with vocabulary learning were from the memory strategy category. It was found that students infrequently used flash cards to learn new words and that they also did not apply context to learning new words either (in learning words in sentences). Neither of these two memory strategies was employed by the 12 participants in the think-alouds, except for Ivy, who distinctly used the story-making strategy (context-based) for the eight words she memorized for the task. It is of great

importance to explore further why students did not report using these strategies often (on the *SILL*) and what strategies they actually did use for the vocabulary task (in the think-aloud). One of the reasons for the infrequent use of the two memory strategies on the *SILL* might be related to the following two facts: (a) vocabulary learning has been confined and limited to the approach of learning words in isolation by the traditional Grammar Translation approach, and (b) most teachers have not incorporated vocabulary teaching in a systematic way into their instruction.

According to the interviews, students reported that their English teachers only required them to memorize lists of words and quizzed them to see if they remembered these words. This method of instruction did not present the words within the context from which they came. The way the words were tested was also mainly in isolation without context. However, it is also worth noting that students were not likely to employ flashcards on the think-aloud vocabulary task, given its nature as a cross-sectional one-time task.

Further analysis of the six strategy categories identified on the think-aloud task also revealed very important information. It seems that differences did exist among the three proficiency levels in terms of the strategy categories used. All three groups of students, regardless of their proficiency levels, employed strategies to emphasize the words -- repeatedly spelling and writing down the words. Only the high-proficient learners used more strategies to sound out the words, while none of the low-proficient learners used any

of these strategies in sounding out words. How to sound out and pronounce a word has always been a challenge for many young EFL learners, especially since they have not been taught how to do so. As a result of discussions with students, it seemed that most of the schools had not really taught students any phonetic strategies, and as a result, the students either could not sound out words on their own or relied on Ju-Yin, the Chinese phonetic symbols, to help them cope with the problem.

However, low-proficient learners used more strategies to understand the meaning of the words when completing the think-aloud task, while none of these word meaning strategies were used by any of the high-proficient learners. Again, it seemed that the high-proficient learners already went beyond the stage of attending to the meaning of words by focusing instead on analyzing the words and by using strategies to divide up the words. An intriguing finding was the high frequency use of metacognitive strategies by medium-proficient learners, but not so much by the other two groups (only one low proficient learner and two high proficient learners were found to use three of the metacognitive strategies).

In short, there is a pattern arising from the results indicating seemingly linear correlations between the proficiency levels and the use of different strategy categories in terms of their cognitive demands. Low-proficient learners seem to use more basic and simple strategies that are not so cognitively demanding, such as understanding the meaning

of words and repeatedly spelling and writing. High proficient learners used more cognitively demanding strategies such as analyzing the words and making association with the words.

Theme 12: Synthesis of Quantitative and Qualitative Findings on The Joy and Fear of Learning English

Students' responses to the two questions on the Background Questionnaire regarding their favorite classroom activities and biggest challenges in learning English also disclosed significant information about teaching and learning English in the EFL context in Taiwan. of the entire group of students, 64.2% ranked games as their number one favorite classroom activities. Such an overwhelming response certainly corroborates the fact that children enjoy learning through games which motivate and engage them in learning. This has been a particularly popular belief and practice with very young learners of English. In her study of seventh grade students learning English in Taiwan, Lin (2002) also found that among all classroom activities, games and lectures revealed significant effects on the students' performance on the four skills tests.

However, several issues might call for further attention here. First, games should be a means of achieving the purpose of language learning, not the purpose itself for learning. Many teachers overemphasize the role of games in their teaching, and as a result, students feel a lack of interest in having an English class if there are no games used. Second,

involving games with too much competition might create conflict among students. According to my experience, one of the common phenomena in classrooms where teachers employ games for language teaching is the hostility generated from either winning or losing the games. Teachers need to be careful of procedural strategies when using games. Rather than placing the emphasis on winning, teachers should capitalize on the completion of the activities for the games and on what has been learned from the games. Third, repetition of the same games might lead to a sense of boredom and can therefore demotivate the learners. In another interview with a group of sixth grade, second year learners of English, many students expressed a lack of motivation because teachers had been using the same games. Fourth, games should be designed to accommodate different age groups of learners. As students grow older and advance in their English learning, they may not be satisfied with child-like games geared toward very young learners. Teachers might need to consider games that are both intriguing and challenging to students who have developed cognitively and have also progressed in their knowledge of English.

For this particular group of young learners, the biggest challenges in learning English have involved grammar and vocabulary. Much has been discussed regarding vocabulary learning. The fact that current English educational policy in Taiwan emphasizes listening and speaking skills over reading and writing skills for beginning learners (MOE, 2000) has limited grammar teaching to a certain extent at least for the first two years. Students' fear of

grammar has been mainly associated with the way grammar has been taught. We need to keep in mind that most of today's teachers in Taiwan learned grammar from the old Grammar Translation tradition, which emphasized form over meaning and taught grammar points in isolation. Despite the fact that Communicative Language Teaching has become the major dominant methodology in the field, some teachers in Taiwan might still b eteaching their students under the influence of their old mentality.

Implications of These Themes for Theory Development and Research

The results of this study raise several implications for the development of theory about language learning strategy use by children at the elementary school level. The first implication refers to the rich repertoire of strategies used by children for language learning. The major focus of learning strategy use by researchers targets young adult and adult second or foreign language learners. However, the findings of this current study provide evidence to corroborate what was found in Chamot and El-Dinary's (1999) investigation of children in foreign language immersion programs: like adults, children use a variety of strategies to cope with their language learning. Results from the current quantitative data support the belief that these young learners not only apply strategies, but apply all six categories of strategies, including memory, cognitive, compensation, metacognitive, affective, and social strategies.

The second implication for theory in the field of language learning strategies pertains to the relationship between children's strategy use and a number of factors. Again, results from this study indicate the existence of a linear correlation between the quantity of strategies employed and (a) degree of liking English, (b) proficiency level (both by self-rating and by teacher-rating), (c) gender, (d) self-choice of studying English in a private English institute (e) prior English learning, and (f) fathers' education. Such findings add to the previous literature regarding factors affecting students' language learning strategy use, particularly at the elementary school level.

The third implication from this study is the specific context in which language learning strategies are used. As shown by the results, children in an EFL context (Taiwan) reported a lower frequency of strategy use than those in an ESL context (Gunning 1997). Hence, it is crucial to understand that ESL contexts provide more opportunities and access to using the language for functional and communicative purposes than do EFL contexts. Such a discrepancy may also explain the learning-acquisition theories in differentiating how languages are learned and acquired (Krashen 1982).

The fourth implication refers to the employment of research instruments for identifying and measuring students' use of language learning strategies. The majority of studies use questionnaires (mainly Oxford's *SILL*, 1990) to find out the number and the type of strategies used by students. Many studies also apply structured or semi-structured

interviews (Chamot & El-Dinary, 1999; Gunning, 1997; Kung, 2004; Yang, 1992). The current study was one of the first to adopt the concept and practice of triangulation utilizing three instrumentation: a questionnaire (the *Taiwanese Children's SILL*, Lan 2004), a semi-structured interview (with 12 participants), and a vocabulary performance task. With data coming from three different resources, I was able to compare, analyze, synthesize, and cross-examine the results in order to present an in-depth profile of children's language learning strategy use.

The fifth implication refers to the need for a task-based instrument for exploring language learning strategy use. Using both questionnaires and interviews might help us find out what strategies children think that they will use. However, utilizing an introspective vocabulary performance task enables students to report exactly what strategies they are using to complete the task on the spot. This type of performance tasks bears the advantage of providing authentic strategy use that a questionnaire and an interview will not be able to do.

Implications of These Themes for Pedagogical Practice

The findings of this study bring several implications to instructional practice for teacher educators in the classrooms. It is important to conceptualize the relationship between students' language learning strategy use and their liking of English which was found to be based largely on teachers' employment of games and the ease they found with

vocabulary learning. If there were games, they felt motivated; if vocabulary was simple and understandable, they liked to learn English; if they liked to learn English, they used more strategies. Figure 6.1 presents the relationships among these points. In other words, games contribute to motivating students to learn English, and mastery of vocabulary learning also plays a big part in students' positive attitude (degree of liking) toward English learning.

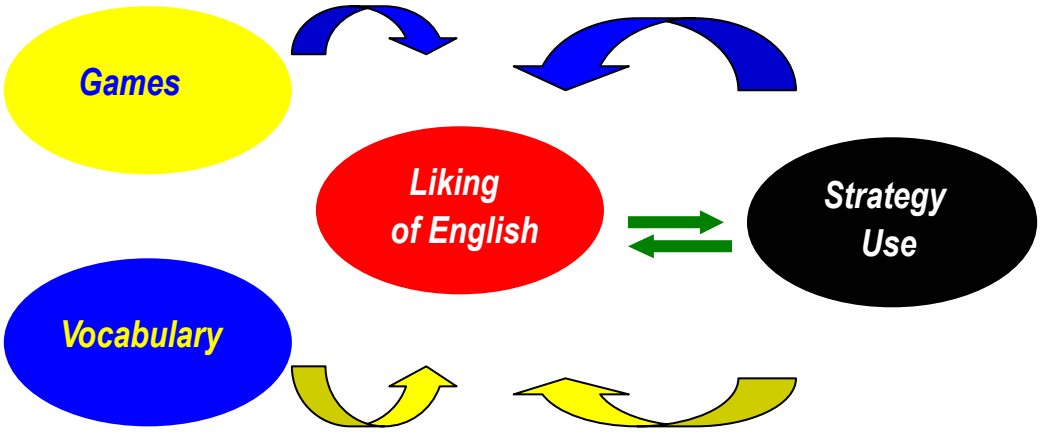


Figure 6.1 Relationships Among Games, Vocabulary Learning, Liking of English, and Strategy Use.

Based on such conceptualization, several implications are presented here. First, teachers should employ games with both age-appropriateness and proper cognitive demands. As previously discussed, children at different ages and different stages of their English learning require different types of games. Repeating the same types of games will likely lead to boredom, and that might demotivate students to learn. As students advance in their knowledge of English, they need games that are tailored to intrigue them as well as

challenge them. Furthermore, it was found from the student interviews that most games teachers use aim at vocabulary leaning. While teachers continue to employ age-appropriate and cognitively-demanding games to help students learn vocabulary, they should also expand the functions of games to teach beyond the word level, such as phrases and sentences. According to Shen (2002), "Activities for making notes, using word-lists, dictionaries, flashcards, games, mnemonics, word-analysis and the like can be very useful. They directly draw learners' attention to the words which need to be consolidated."

Second, teachers need to start incorporating systematic instructions on teaching vocabulary so that they can equip their students with strategies to cope with the challenges in vocabulary learning. As Sternberg (1987) contended, a major function of teaching vocabulary is to teach students to teach themselves and it is evidenced in our study for such need. Vocabulary teaching needs to be explicit and contextualized. Although research has shown evidence supporting the positive results of using word lists to build up vocabulary size and achieve a short-term purpose (Nation, 1982), it doesn't mean that teachers have to teach words in isolation. Oxford and Crookall (1990) classified common vocabulary learning strategies into four categories:

(a) *de-contextualising*: word lists, flashcards, and dictionary use; (b) *semi-contextualising*: word grouping, association, visual imagery, aural imaginary, keyword, physical response, physical sensation, and semantic mapping; (c) *fully contextualising*: reading, listening,

speaking, and writing; (d) *adaptable*: structured reviewing. Such a model provides a continuum of vocabulary learning strategies from least context-based to fully context-based.

Teachers need to approach vocabulary teaching by first teaching their young students how to use the dictionary as a tool. Skillful use of dictionaries has been found to bear positive effects on students' vocabulary size and their general English proficiency (Gu and Johnson 1996). According to my own experience, several steps should be followed in implementing vocabulary instruction:

1. Look up the word in the dictionary
2. Use phonetic symbols to sound out the word
3. Copy the word in a vocabulary notebook
4. Write down the definition of the word from that specific context
5. Copy the sample sentence in the notebook using the word in context
6. Make a new sentence using the word in the same context
7. Use the same procedure for a different meaning of the same word when appropriate

Teachers can model the steps for the students first and capitalize on practicing this approach in the classroom either as a whole class, in small groups, with a partner, or individually. Vocabulary assignments also need to be given to students so that they can learn to become independent and skillful users of dictionaries.

Third, it is important for teachers to start implementing language learning strategies of all six categories, as found in the results of the *Taiwanese Children's SILL*. Although we have found more than half of the entire sample reporting a medium range of strategy use, there were still a quarter of the participants who reported a low frequency of strategy use. Research has lent support to the value of strategy instruction, as it was found in some studies that learning strategies could be taught to students through training to help them improve their performance on language learning tasks (O'Malley, Chamot, Stewner-Manzanares, Kupper and Russo, 1985b; Tsuchida, 2002)

Furthermore, the overall mean score was only at a medium level, as found in the prior Taiwanese pilot study with other elementary school students (Lan & Oxford, 2003). Teachers need to tailor their strategy instruction based on the findings (the most and least used strategy items) and consider context-specific issues to design the most pertinent instructional procedures for elementary school students in Taiwan. Several considerations need to be made with the implementation:

1. Policymakers, school authorities, teacher educators, and parents need to be informed by research to advocate the values of strategy instruction in English as well as in different disciplines.
2. Teacher education programs need to include and highlight strategy instruction as an important component to build up teachers' knowledge, interests, beliefs, and confidence

in implanting strategy instruction.

3. Strategy instructional models should provide specific steps and procedures to help teachers with their job.

4. Teachers need to guide and facilitate students in understanding the need and value of using learning strategies for effective English learning.

There have been many different strategy instruction models initiated by researchers in both first and second language contexts (Hosenfeld, Arnold, Kirchofer, Laciura & Wilson, 1981; Jones, Parlincsar, Ogle & Carr, 1987; O'Malley & Chamot, 1990; Oxford, 1996). O'Malley and Chamot's instructional model provides a very comprehensive yet succinct five-step procedure (p. 158):

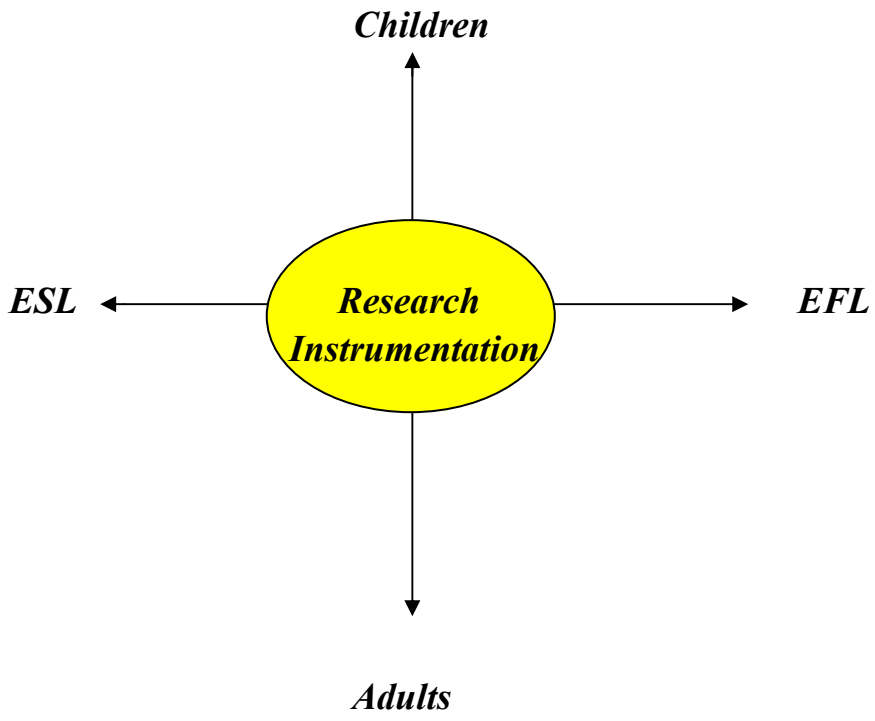
1. Preparation: Develop student awareness of different strategies through retrospection, think-alouds, and discussions.
2. Presentation: Develop student knowledge about strategies by providing rational, describing/naming strategy and by modeling strategy use.
3. Practice: Develop student skills in using strategies for academic learning through cooperative learning tasks, think-alouds, peer tutoring, and group discussions.
4. Evaluation: Develop student ability to evaluate their own strategy use through recording strategies used, discussions, and keeping dialog journals.
5. Expansion: Develop transfer of strategies to new tasks by discussions on metacognitive

and motivational aspects of strategy use, additional practice, and assignments.

Recommendations for Future Research

Based on the results of the current study, several recommendations are made for further research into language learning strategy use in the field. Figure 6.2 conceptualizes the important suggestions below.

Figure 6.2 Research Instrumentation, Contexts and Age Groups



Research Instrumentation

As previously mentioned, most research on language learning strategies employs a single questionnaire for identifying the quantity and variety of strategies used by the

learners. I would like to suggest multiple measures in order to triangulate the data and further provide understanding of not just what and how many strategies are used, but also on when, where, and why they are used. As a result, the need for a task-based instrument is necessary to accomplish such goals.

C*ontexts*

The current study represents the first large-scale investigation of children's language learning strategy use in an EFL context in Taiwan. Further studies are needed to explor children's language learning strategy use in other EFL contexts in Asia and in Europe. Furthermore, comparative studies need to be conducted to see if there are any more differences existing between ESL and EFL contexts in terms of strategy use by young learners.

Participants

With the inclusion of children's strategy use, a more comprehensive picture has been presented. However, more studies are needed in the field to consider more fully the implications for young learners. The current study investigated only the higher grades in the elementary schools. Do middle and younger grade students also employ different strategies for language learning? What might be the same or different factors that affect their strategy use? Additionally, are there any developmental changes in their strategy use? A longitudinal rather than a cross-sectional study will help provide more insights into the language

learning strategy use by *children at the elementary grade level.*

The current study examined relationships between children's strategy use and eight independent variables, namely, geographical area, gender, fathers' education, mothers' education, self-choice of studying in a private English institute, self-rated English proficiency, and degree of liking English. Some of the variables were context-specific. In other words, different contexts may exist with specific cultural or social elements that would make a difference in children's strategy use. Although existing research has already investigated numerous variables that might play a part in affecting language learning strategy use by different age groups of learners, more study is needed, especially in comparison with different age group, and in different contexts for different cultural or social specifics.

Proficiency Levels

Due to the large sample size, it was beyond my capacity to conduct a standardized test to decide on the learners' different proficiency levels. However, students were asked to self-rate their proficiency, and the proficiency of the 12 subsample participants was also determined by their English teachers. These ratings of proficiency proved to be very robust and helpful in this study, even more so than anticipated. Future research should involve some form of standardized, reliable, and valid measurement of all participants' proficiency levels, even if the studies contain large samples. If this happens, results will be even more

solid regarding relationships between proficiency levels and students' strategy use.

Vocabulary Learning Strategy Use

In addition to the general strategy use on the *SILL,* language learning strategies used for specific language tasks should be a focus of future investigation. For example, future studies could center on any of the following language-area or task-based strategies: vocabulary learning strategies as discussed in the current study, grammar-learning strategies, test-taking strategies, reading strategies, listening strategies, writing strategies, and speaking strategies (both conversational and oral-presentational). Specific task-based strategy use will allow researchers to either observe, collect or record specific strategies used on authentic tasks in various areas of language learning.

Measuring Teachers' Beliefs about Language Learning Strategy Instruction

One of the pedagogical implications discussed earlier was for teachers to incorporate strategy instruction in their instructional practice on a regular basis. It will also be crucial to further explore teachers' beliefs and attitudes toward learning strategy instruction. My two colleagues and I already initiated this line of research (Lan & Oxford, 2005; Lan, Moon & Oxford, 2005) by investigating elementary school English teachers' beliefs about strategy instruction using the newly developed instrument entitled *Teacher Beliefs Inventory for Strategy Instruction (TBISI*, Lan, Moon & Oxford, 2003). In the future, much more research will be needed to help us better understand teachers' beliefs about strategy instruction in

various cross-cultural contexts.

Final Conclusion

The purpose of the current study was to present an in-depth profile of language learning strategy use by Taiwanese elementary school students. I have made the best attempt to answer all six research questions by employing both quantitative and qualitative data. Three forms of instrumentation were involved: questionnaires (the *Taiwanese Children's SILL* with the *Background Questionnaire* at the end), student interviews, and a vocabulary performance task. The findings from this study have provided insights into how Taiwanese elementary school students approach their language learning. Many questions remain. This final chapter concludes the current study, yet also begins a new chapter for further investigation.

Appendix A

Taiwanese Children's Strategy Inventory for Language Learning

(Lan, 2003)

Directions. Please respond to *all* the items below. Read each statement, then choose an answer for each statement:

1. Never or almost never
2. Usually not
3. Sometimes
4. Often
5. Always or almost always.

Example. Statement: I try to find opportunities outside of school (getting tutors or attending language schools, etc.) to practice English. Answer __4__

Note. *There are no wrong responses to the items below. We just want to know about the way in which you learn English.*

Part A

1. I associate new English words with what I already know.(For example, when I learn the word *computer,* I associate what I already know about computer)
2. I make a drawing, either in my head or on paper, to help me remember a new word.(For example, when I learn the word *bike*, I picture a bike in my head)
3. I learn new words in sentences.
4. I use flash cards to memorize new words
5. I review often.
6. I often review newly learned vocabulary or expressions by repeatedly writing.
7. I often review newly learned vocabulary or expressions by repeatedly mouthing.

Part B

8. When I speak in English, I try to imitate English-speaking people, in order to pronounce the words correctly.
9. I often practice English alphabet sounds.
10. I often watch TV in English or I listen to English tapes or CDs.
11. I read books in English.(For example, English story books)
12. I work with English computer programs.
13. I try to find opportunities outside of school (tutoring or cram schools) to practice my English.
14. I find similarities in pronunciation between Chinese and English.(For example, the word *card* sounds similar to the Chinese word *Ka)*
15. I make an effort to understand the sense of what I read or what I hear without translating word for word.

16. I try to discover grammar rules of the English language.(For example, using *is* for singular and *are* for plural)

Part C

17. When I hear or read a new word in English, I try to guess the meaning by looking at the rest of the sentence.

18. When I have trouble making myself understood in English, I use gestures to express what I want to say.

19. When I don't know a word in English, I ask for help.

20. When I can't find an expression in English, I try to find another way to say what I mean (For example, using words or phrases that I already know, like using big cat for the word tiger)

Part D

21. I organize my time to study English (not just when there is a test).

22. I look for occasions to speak English.

23. When someone speaks to me in English, I listen attentively.

24. I am concerned about my progress in learning English.(For example , concerning and understanding if I have learned what I am supposed to and see if I have made progress)

25. I analyze the errors I have made and try not to repeat them.

Part E

26. Whenever I am stressed by the idea of speaking English, I try to relax.

27. I will still encourage myself to speak English even if I am afraid to make mistakes.

28. When I succeed, I reward myself. (For example, taking a break or doing things I enjoy or treat myself to something good to eat)

Part F

29. If I don't understand what is said to me in English, I ask the person to help me by speaking slowly, repeating, or clarifying what has been said.

30. I practice English with my parents, sibling (or other family members) or my classmates.

31. I am interested in and willing to learn the culture of English speaking countries. (For example America or England)

ANSWER SHEET

Student ID number_____

Date:_____

Native language_____ Age_____

Write your answer for each statement (1 2, 3, 4 or 5) beside the number of the statement.

Calculate the total for each column and write the result at the bottom of each column.

Part A	Part B	Part C	Part D	Part E	Part F	
l._____	6.___	17.__	21.___	26.__	29.__	
2._____	7.___	18.__	22.___	27.__	30.__	
3._____	8.___	19.__	23.___	28.__	31.__	
4._____	9.___	20.___	24.___			
5._____	10.__		25.__			
	11.__					
	12__					
	13.__					
	14.__					
	15.__					
	l6.__					

Adaptation of the **Strategy Inventory for Language Learning (SILL)** developed in 1989 by Rebecca Oxford. Adapted for Francophone children in 1996 by Pamela Gunning.

Background Questionnaire

(Note: In the proposed study, the Background Questionnaire will be incorporated into the *Taiwanese Children's SILL*.)

Please answer the following questions about your personal background information. They will be kept confidential, and no data will be revealed to any one in any means. I am the only person with access to the data.

Student ID number:_____

I am a ___boy / ___girl I am a ___5th / ___6th grader

I am attending _____ elementary school.

My father's educational background: ___high school ___college ___graduate school

My mother's educational background: ___high school ___college ___graduate school

1. My language learning experiences:
   Yes, I have had attended English language school so far for
   ___ 1-12 months ___1-2 year ___2-3 years ___more than 3 years
   ___No, I have never attended any language schools before.

2. If I could make my own decision (rather than decision made by my parents), I will choose to attend a language school. ____ Yes ____ No

3. My favorite subjects in school are (in the order of preference)
   1. ____ 2. ____ 3. _____

4. How much do you like to study English? ___
   1. I like it very much. 2. I like it. 3. It's OK. 4. I don't like it.
   5. I don't like it very much.

5. My favorite English classroom activities (Please choose five of your favorite activities and put them in the order of how much you like them. For example, 1. my first favorite,
   2. my second favorite, 3. my third favorite 4. my fourth favorite, and 5. my fifth favorite.)
   reading ____ writing ____ listening ____ speaking ____
   pronunciation practice ____ watching videos ____ songs and chants ____
   playing games ____ others ____(please specify: _____)

6. The most challenging parts of learning English (Please choose five of the things that are most difficult for you in learning English. Then put down from 1 to 5 in the order of difficulties. For

example, 1. the most difficult 2. the second most difficult 3. the third most difficult 4. the fourth most difficult and 5. the fifth most difficult.)

listening ____ speaking ____ reading ____ . writing ____

pronunciation ____ memorizing vocabulary ____ grammar ____

others ____ (please specify: _____)

Appendix B

Guiding Questions for *Taiwanese Children's SILL*

Reviewing Committee

Taiwanese Children's Strategy Inventory for Language Learning
(*Taiwanese Children's SILL*) Review Committee
Coordinated by Rae Lan
Mar. 12, 2004

Guiding questions for the reviewing process:

1. Are all strategy items correctly and properly translated into Chinese?
2. Do all items appropriately and adequately represent the general language learning experiences of the Taiwanese elementary school students particularly in the upper grades (G4-G6)?
3. Does each strategy category have appropriate numbers of items?
4. Is each item comprehensive enough for the target audience?
5. Does the inventory have appropriate format which is easy to follow by the target audience?
6. Please comment on the open-ended questions at the end of the inventory. Are they appropriate and adequate enough in providing significant information related to the children's learning experience?

Appendix C

The Invitation Letter to the School Principals

Dear Mr./Ms. _____(Principal),

Thank you so much for your generous support and assistance in the administering the *Taiwanese Children's Strategy Inventory for Language Learning (The Taiwanese Children's SILL,* Lan, 2004).

The purpose of the study is to investigate the language learning strategies profiles of elementary school students in Taiwan. There will be no risks of any kind involved in taking the questionnaire except for the time spent on answering the questions. All data will be kept confidential. Benefits for the participating students include a better understanding of their own strategy use, an increasing awareness of strategy use and knowledge of a richer strategy repertoire.

The total time spent on administering the questionnaire will be around 20 to 25 minutes, including the teachers' explaining the procedures and the steps in taking the questionnaire.

In return to your generous support and assistance in getting the data, it will be my honor to offer a one- to three-hour workshop for teachers who are interested in language learning strategies and strategy instruction for elementary school students.

I will also share with you, the teachers, and the students the results and findings of the study which will provide a clear strategies profile of the students in your school. This report will be available once the data is collected and analyzed, probably in March, 2005.

Please let me know if you have any questions or any concerns. Again, my most sincere appreciation to your time and help.

Best wishes,
Rae Lan, Doctoral Candidate
TESOL / Second Language Education
Department of Curriculum & Instruction
University of Maryland, College Park

Appendix D

Guidelines for Administering the Questionnaire

Dear teacher,

Thank you so much for helping with administering the *Taiwanese Children's Strategy Inventory for Language Learning* (Lan, 2004). The purpose of the survey is to investigate the strategies profiles of elementary school students in Taiwan. After taking the questionnaire, the students will gain better knowledge of their strategy use as language learners and also become aware of the strategy repertoire. Students will only be required to put down their student ID for the purpose of encoding their proficiency levels. No names will appear, and the data collected will in no means be revealed to anyone. Here is a list to help you with the procedures:

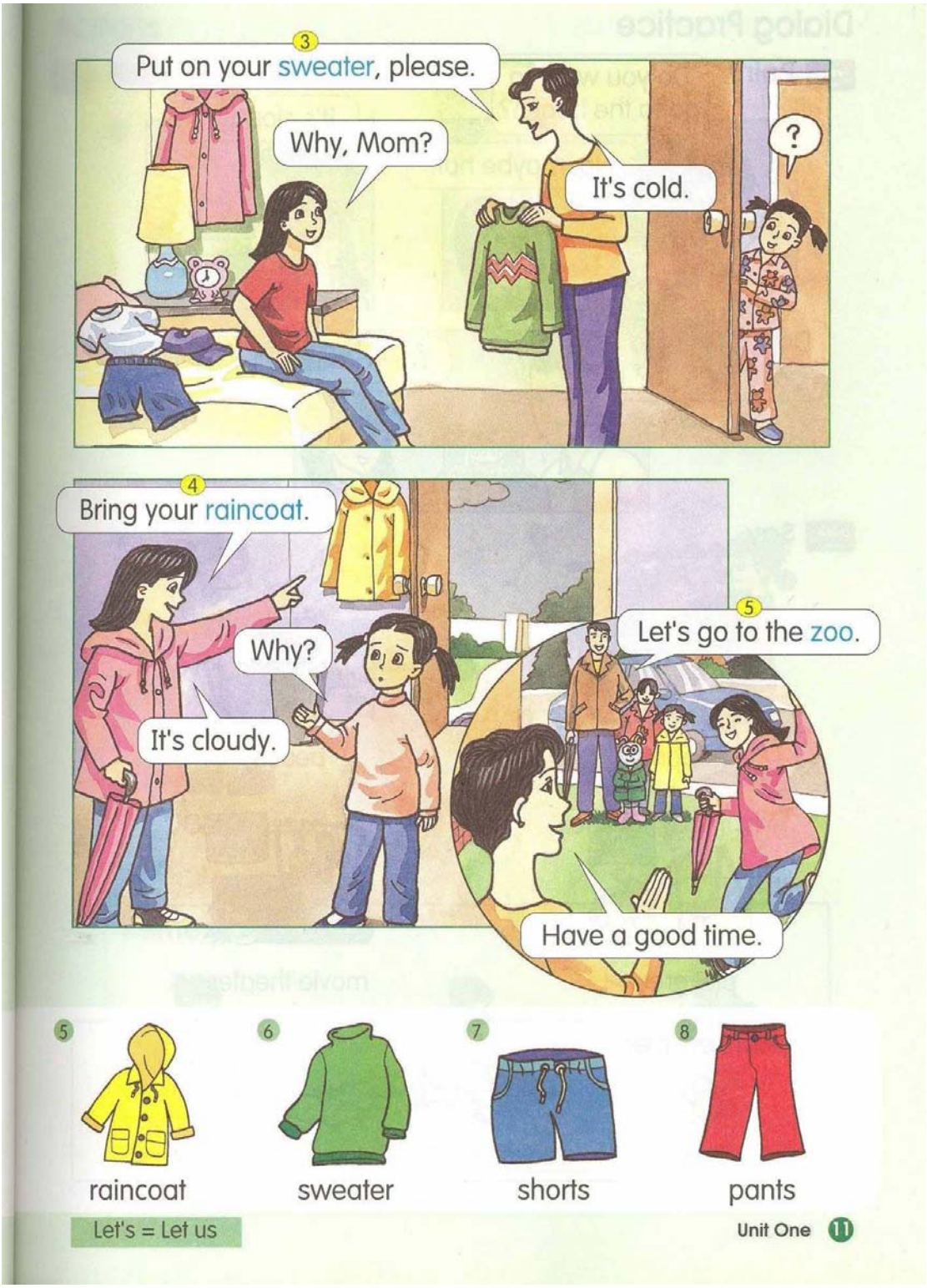
1. Please tell students that the purpose of the study is to learn about how Taiwanese elementary school students learn English.
2. Please tell students that they will not write down their names but rather their student ID numbers. I am only interested in knowing their language learning experiences.
3. Please emphasize that the students should try to answer as truthfully as possible the questions listed in the questionnaire. Their confidentiality is 100% protected.
4. Please place high emphasis on the fact that there are no wrong answers.
5. Please guarantee that their answers will in no way affect their grades, since I will be the only person reading their answers.
6. Make sure that they should ask you any questions that are not clear to them.
7. Please tell students that there are two parts in the questionnaire. Part one includes 35 items, and part two (the *Background Questionnaire*) includes some background information.
8. Please tell students that the survey will start now and will probably take 20-25 minutes.

Please keep track of the students' questions if you can. Please tell them that I will be sharing the results of their strategies profiles after all data have been analyzed.

Rae Lan, Doctoral Candidate
TESOL/ Second Language Education
Department of Curriculum & Instruction
University of Maryland, College Park

Appendix E

Vocabulary from the Textbook for the Vocabulary Performance Task


3
Put on your sweater, please.
Why, Mom?
It's cold.
?
4
Bring your raincoat.
Why?
It's cloudy.
5
Let's go to the zoo.
Have a good time.
5
raincoat
6
sweater
7
shorts
8
pants

Let's = Let us

Appendix F

List of Challenge Words for Advanced Learners for Vocabulary Performance Task

QUESTIONNAIRE

STRATEGY

PERFORAMNCE

SELECT

PERSONALITY

EXTRAORDINARY

RESPECT

EVALUATION

Appendix G
Vocabulary performance Procedures and Student Interview Questions

1) Vocabulary Performance Task Procedures
   a) Practice and Training Session
      i) I will first explain the purpose of the vocabulary performance task
      ii) I will demonstrate how to perform the task while trying to memorize two words.
      iii) The participants then will be asked to practice thinking aloud while performing similar tasks.
   b) The Actual Vocabulary Performance Task - Vocabulary Memorization Task
      i) The participants will be asked to look at a list of vocabulary and try to memorize them for a quiz.
      ii) The participants will be asked questions while performing the task to elicit specific strategies used throughout the process.
      iii) The participants will be given a quiz by writing down what they have just memorized
      iv) The whole performance task process will be video-taped for further transcription and analysis.
2) Interview content for the students:
   a) Biographical data
      i) ID Code
      ii) Gender
      iii) Grade
      iv) Years of learning
      v) Places of learning
      vi) Textbooks used
   b) Attitude and motivation
      i) Do you like English when you first started? What about now?
      ii) If yes, why if not, why not?
      iii) What are your favorite subjects? Why?
      iv) How do you study at home?
      v) How do your parents help you if they do?
      vi) Do you think learning English is important? Why?
      vii) What is your motivation to learn?
      viii) What classroom activities do you like to do the best?
      ix) Do you use a dictionary? How do you use it?
   c) Preferred learning styles and strategies use

i) What strategies do you use to study English (cognitive strategies)?
   (1) Reading
   (2) Listening
   (3) Speaking
   (4) Writing

d) How do you memorize vocabulary?
e) How do you prepare for a test? (listening and speaking and writing?)
f) D o you plan, organize, evaluate or monitor your learning (metacognitive strategies)?
g) D o you study English with your parents, adults, siblings, classmates or friends (social strategies)?
h) D o you reward yourself when you do well in English (affective strategies)?

Appendix H
Sample Transcripts and Translation of the Performance Task
ID. Code 201, Central Region, Low-Proficiency

School: Yun-Long ES
City: Taichung, Central Taiwan
Name: Daisy
Level: Low
Date: 6/24/2004
Time: **14 m 30 sec**

At 7:13-7:40 (27 sec)
She tried to sound out the word by saying Z and O and ZO.
I: Did you get it?
P: Yes, I kept writing and memorizing the words.
I: One O sounds O but what about OO?
P: (Pause)
I: like School?
P: (still pause)
I: It should sound like "u" so this is ZOO? Right?
P: Yes.
I: So you would read it and try to sound out?
P: Yes.
I: And then what?
P: And then I keep writing and memorizing the word.
At 8:40-9:35 (55 sec)
I: Did you try to sound out?
P: Sometimes I did but not always.
I: Like ZOO did you try to sound out?
P: Yes.
I: If you usually do this, then use it here too.
P: I rarely do this actually.
I: Did you say the English and the Chinese words both?
P: Yes, I did both.
I: So you did Z-O-O ZOO Don-wu-Yuan (Chinese)?
P: Yes.
At 10:10-10:40 (30 sec)
I; Do you know how sounds?
P: No.
I: It's PLAYGROUND
At 10:50-11:05 (15 sec)
I: Do you have to sound out to memorize the word?

P: The teacher will sound out the word and we will follow her. She would also ask us to do homework.
I What kind of homework?
P: Copying the words a few times.
At 11:30-11:45 (15 sec)
I: Did you sound out the word while you tried to spell it?
P: No.
I: Do you usually sound out?
P: No
At 11:55-12:25 (30 sec)
I: Do you usually sound out the spelling like P-L-A-Y-G-R-O-U-N-D?
P: Yes.
I: In that case, you can do it just like you used to.
P: OK. (She sounded out the spelling BUT in a very SLOW way)
At 12:35-13:20 (55 sec)
I: Do you usually write down the Chinese as well when you try to memorize a word?
P: Yes.
I: Good
I: You wrote down the Chinese while you memorized the words, what else were you thinking when you were doing that?
P: Nothing.
I: So what you did was to spell out the word, write down the word, say the Chinese and also write down the Chinese?
P: Yes.
I: Were you thinking of a playground?
P: No.
I: OK.
At 13:40-13:55(15 sec)
I: Do you usually write down the word 4 times?
P: Usually two times.
At 14:07-14:20 (13 sec)
I: How do you say this word?
P: (Couldn't say it)
I: What is the first letter?
P: /D/
I: It's B. Why did you sound "D"
P: B
I: OK, What about EA?
P: (Pause)

I: It sounds long i
P: i
I: So what is BEA together?
P (Pause)
I: It is BEA. What about CH?
P: (Pause)
I: Do you know CHAIR?
P: (Pause)
I: BEACH
At 13:40-13:55 (15 sec)
At 15:03-22:28 (Take out 75 seconds for short interruptions) (6 min 10 sec)
I: You don't know how to write the Chinese character for Beach?
P: No.
I: Here you are.
I: Would you look at the picture of the words?
P: No. just the spelling
I: And did you sound out the spelling as well
P: No, I did it silently.
I: Are you done?
P: Yes.
I: OK, The first word PARK, RAINCOAT, PANTS,
She has trouble so the interviewer gave her some more time to review the words again.
At 24:00-25:55 (I min 55 sec)
I: Were you thinking of any of your experience like a park you have been to when you were doing the word PARK?
P: No.

Notes:

- She has very weak concept about Phonology.
- She only does silent spelling and rarely sound out the spelling.
- She almost never sound out the words.
- She has a particular habit of writing down the Chinese next to the English that she memorizes.
- She writes both English and Chinese a couple of times
- She did pretty poorly on the quiz despite the fact that I allowed her more time for review after she said that she was ready.

Appendix I.
Sample Transcripts and Translation of the Interview

Interview : ID. Code 303, Southern Region. High-proficiency

School: Ho-Ping ES City: Gaou Hsung, South Taiwan

Name: Yo Ya-Wen Level: High

Date: 6/29/2004 Time: (18m)

Background of the participant:

- She has been studying English since kindergarten- a bilingual kindergarten, 4 years in a private school, 6 months in another private school and 1.5 years in this one she has been attending.
- Bilingual- like English, it was fun, having foreigner teachers
- Da-Kwei- 4 years, she didn't like it because she didn't like to study with junior high school students and she didn't like repeating what they learned in regular school
- Uncle Mark- 6 months, she was more advanced then most kids, not much to learn, very expensive, she was the one who decided not to continue. She thought she was not learning enough for what she had to pay for.
- Man-Gen-Yun- 1.5 years till now, emphasized 4 skills, learning how to write, having foreigner teachers, can talk to them and she tried to understand what they were talking

Reasons for liking English: it's good for learning a new language which will be helpful to my school and later for my career, I can understand what people are talking about I always feel a sense of joy going to the private school. I like being challenged with materials that I feel I can learn a lot from .like the school where I can learn 4 skills

I: Did your parents decided which school you go to?

P: No, I basically made the decision by learning about the schools from my classmates and we would go and sit in for the class.

I: What happen if the foreigner teacher says something you don't understand?

P: I will try to guess what he was talking about based on the situation then. I will try to listen for any word I might have learned before.

I: Would you ask the teacher?

P: Not very often.

I: What about your classmates, what would they do?

P: Most of them would just ask the teachers.

I: Do most schools you have attended use lots of games>

P: Not really, I think the main purpose of using games is to strengthen the impression

of the words
I: So do you think games help you learn?
P: Yes, it can help me memorize the words.
I: What is your favorite subject in school?
P: English
I: What is your favorite class activities?
P: When teacher asked us to do the “Sentence of the week”
I: Why is that?
P: Because I can learn some new words and I can sometimes use it. For example, We did a sentence one time called “Be honest, don’t lie” and at the private school, we were asked to make a sentence using the word “honest”
I: What sentence did you make?
P: Be honest, don’t lie.
I: Excellent!
I: Do you study English on your own at home?
P: Mom bought me a set of readers and I never have the time to read them so I am planning to use this summer to spend time reading them.
I: That is a great idea.
P: But then if there are word that I don’t understand, I will have to use a dictionary. And I think what I will do is to look up all the words first before I start reading the story.
I: You mean like for each paragraph, you would look up the new words first in a dictionary.
P: Or using an electronic dictionary.
I: how do you use it?
P: I would listen to the pronunciation and use the KK to memorize the words.
I: What other ways would you use to help you understand the story?
P: I would also see if it is a story that I already know in Chinese. If that is the case, then I will try to guess what the words might mean.
I: Who taught you this?
P: I just learned it while I was reading.
I: So when you read a story you would see
P: if there is any words that I don’t understand. IMPORTANT: Using SCANNING

USE THIS FOR THE FINAL CHPATER IN Describing advanced strategies

I: So again, you still have not answered my question about planning time to study English on your own?
P: Not very often, but I am planning to start this summer!
I: Would you study before the test?

P: Well, like I do simple review since I pretty much know most of them
I: Well because you already study well before that.
P: But I would still be very nervous about the tests. I don't like the feeling of not doing well on a test. If I fail, it means that I didn't memorize the words well enough.
IMPORTANT: She regards highly of how she does on the tes
I: So would you sound out the words?
P: Yes, that is how I can know about how to sound the KKs are for the words for me to memorize them.
I: Do your parents help you?
P: They don't really have time
I: What do you besides using a dictionary when you have a question?
P: Like asking teachers and classmates
I: Do you have any siblings?
P: No, I am the only child
I: Why is learning English important"
P: You can speak to people in English
I: When memorizing a paragraph, what do you do?
P: I will break it into smaller parts to help me understand better.
She is now learning to write the main idea of an article at the private school. When she writes the main idea, she will use the dictionary to help her use words she might have know before by looking at he sentences provided in the electronic dictionary. She would also try to chose the most suitable word by comparing the meaning of the example sentences.
I; what would you do if you do well?
P: I didn't do well in my final Math and I cried in my room because I felt so bad not being able to finish the test or knowing how to answer the questions.
I: What about English?
P: I got 100 and I usually do well and feel confident about it
I: would you be rewarded for doing well?
P: No, it is just a test
I: What if you do badly
P: I will get nagged at
P: And what do you do?
I: I will make sure that I understand it and never make the same mistake again and mom always tells me that Don't make the same mistake twoice.

Appendix J

The Parental Permission Form for the Questionnaire (Phase I)…

Identification of project/title	**Language Learning Strategies Profiles of EFL Elementary School Students in Taiwan**	
Statement of age	I am acting on behalf of my child who is under the age of 18.	
Desire to Participate	I am giving permission for my child to participate in the research conducted by Dr. Rebecca Oxford and Rae Lan in the Second Language Education Program, Department of Curriculum and Instruction at the University of Maryland, College Park.	
Purpose	I understand that the purpose is to examine my child's language learning strategies.	
Procedures	My child will take the *Taiwanese Children's Strategy Inventory for Language Learning (Taiwanese Children's SILL),* which will include (a) items asking about which strategies the child uses and how often and (b) a *Background Questionnaire* that has been incorporated into the *Taiwanese Children's SILL.*	
Confidentiality	All information collected in this study is confidential to the extent permitted by law. I understand that the data my child provides will be grouped with data others provide for reporting and presentation and that my child's name will not be used. The child will be identified only by an ID number.	
Risks	I understand that there are no risks involved other than the time spent completing the inventory. Results will not affect my child's grades in any way.	
Benefits	I understand that this study will help me and my child get a better understanding of his/her language learning strategies profile and raise our awareness of strategy use.	
Ability to Withdraw	I can withdraw my child from this study at any time desired, and my child can also decide to withdraw at any time without penalty.	
Ability to ask questions	I understand that I can ask as many questions as I wish and discuss this study with the researcher or with others before I decide to let my child take part in the study. My child can also ask questions at any time.	
Contact Information of Researchers	Dr. Rebecca L. Oxford, Principal Researcher Dept. of Curriculum & Instruction 2311 Benjamin Bldg. Phone: 301-405-8157 E-mail: ro38@umd.edu	Rae Lan, Ph. D. Candidate Second Language Education, EDCI 2311 Benjamin Bldg. Phone: 301-405-8157 E-mail: raelan0116@yahoo.com
Contact Information of Institutional Review Board (IRB)	If I have any questions about my child's rights as a research participant or if I wish to report a research-related injury, I know that I should contact: Institutional Review Board Office, University of Maryland, College Park, Maryland, 20742; (e-mail) irb@deans.umd.edu; (telephone) 301-405-4212.	
Obtaining a copy of the research result	I may obtain a copy of the results of this research after May, 2005 by contacting Rae Lan at the Department of Curriculum & Instruction, 2311 Benjamin Building, University of Maryland, College Park, Maryland 20742-7635. Phone: 301-405-8157. E-mail: raelan0116@yahoo.com	

Printed Names of Parent of Participant: _____

Signature of Parent of Participant: _____Date:_____

Appendix K

Student Assent Form for the Questionnaire

Identification of project/title	**Language Learning Strategies Profiles of EFL Elementary School Students in Taiwan**	
Statement of age	I am under the age of 18.	
Desire to Participate	I want to participate a study conducted by Dr. Rebecca Oxford and Rae Lan in the Second Language Education Program, Department of Curriculum and Instruction at the University of Maryland, College Park.	
Purpose	I understand that the purpose is to examine my language learning strategies	
Procedures	I will fill out the *Taiwanese Children's SILL* questionnaire conducted by my English teacher on my language learning strategies use. I will also fill out the *Background Questionnaire*.	
Confidentiality	All information collected in this questionnaire is confidential and will be permitted by law. I understand that a student ID number will be used to protect my identity. My name will not appear on the questionnaire.	
Risks	I understand that there are no risks involved other than the time spent doing the interview. Results will not affect my grades in any way.	
Benefits	I understand that this study will help me get a better understanding of my language learning strategies profile and raise my awareness of strategy use.	
Ability to Withdraw	I can withdraw from this study at any time I want.	
Ability to ask questions	I understand that I can ask as many questions as I wish before I decide to take part in the study.	
Contact Information of Researchers	Dr. Rebecca L. Oxford, Principal Researcher Dept. of Curriculum & Instruction 2311 Benjamin Bldg. Phone: 301-405-8157 E-mail: ro38@umd.edu	Rae Lan, Ph. D. Candidate Second Language Education, Dept. of Curriculum & Instruction 2311 Benjamin Bldg. Phone: 301-405-8157 E-mail: raelan0116@yahoo.com
Contact Information of Institutional Review Board (IRB)	If I have any questions about my rights as a research participant or if I wish to report a research-related injury, I know that I should contact: Institutional Review Board Office, University of Maryland, College Park, Maryland, 20742; (e-mail) irb@deans.umd.edu; (telephone) 301-405-4212.	

Printed Names of Parent of Participant: _____

Signature of Parent of Participant: _____Date:_____

Appendix L
Parental Permission Form for the Student Interview

Identification of project/title	**Language Learning Strategies Profiles of EFL Elementary School Students in Taiwan**	
Statement of age	I am acting on behalf of my child who is under the age of 18.	
Desire to Participate	I am giving permission for my child to participate in the research conducted by Dr. Rebecca Oxford and Rae Lan in the Second Language Education Program, Department of Curriculum and Instruction at the University of Maryland, College Park.	
Purpose	I understand that the purpose is to examine my child's language learning strategies	
Procedures	My child will accept an interview conducted by Rae Lan on his/her language learning strategies use.	
Confidentiality	All information collected in this interview is confidential to the extent permitted by law. The child will be identified only by an ID number.	
Risks	I understand that there are no risks involved other than the time spent doing the interview. Results will not affect my child's grades in any way.	
Benefits	I understand that this study will help me and my child get a better understanding of his/her language learning strategies profile and raise our awareness of strategy use.	
Ability to Withdraw	I can withdraw my child from this study at any time desired, and my child can also decide to withdraw at any time without penalty.	
Ability to ask questions	I understand that I can ask as many questions as I wish and discuss this study with the researcher or with others before I decide to let my child take part in the study. My child can also ask questions at any time.	
Contact Information of Researchers	Dr. Rebecca L. Oxford, Principal Researcher Dept. of Curriculum & Instruction 311 Benjamin Bldg. Phone: 301-405-8157 E-mail: ro38@umd.edu	Rae Lan, Ph. D. Candidate Second Language Education, EDCI 2311 Benjamin Bldg. Phone: 301-405-8157 E-mail: raelan0116@yahoo.com
Contact Information of Institutional Review Board (IRB)	If I have any questions about my child's rights as a research participant or if I wish to report a research-related injury, I know that I should contact: Institutional Review Board Office, University of Maryland, College Park, Maryland, 20742; (e-mail) irb@deans.umd.edu; (telephone) 301-405-4212.	
Obtaining a copy of the research result	I may obtain a copy of the results of this research after May, 2005 by contacting Rae Lan at the Department of Curriculum & Instruction, 2311 Benjamin Building, University of Maryland, College Park, Maryland 20742-7635. Phone: 301-405-8157. E-mail: raelan0116@yahoo.com	

Printed Names of Parent of Participant: _____

Signature of Parent of Participant: _____Date:_____

Appendix M
Student Assent Form for the Student Interview

Identification of project/title	**Language Learning Strategies Profiles of EFL Elementary School Students in Taiwan**	
Statement of age	I am under the age of 18.	
Desire to Participate	I will participate a study conducted by Dr. Rebecca Oxford and Rae Lan, in the Second Language Education Program, Department of Curriculum and Instruction at the University of Maryland, College Park.	
Purpose	I understand that the purpose is to examine my language learning strategies	
Procedures	I will accept an interview conducted by Rae Lan on my language learning strategies use.	
Confidentiality	All information collected in this interview is confidential and will be permitted by law. I understand that a student ID number will be used to protect my identity. My name will not appear in any way.	
Risks	I understand that there are no risks involved other than the time spent doing the interview. Results will not affect my grades in any way.	
Benefits	I understand that this study will help me get a better understanding of my language learning strategies profile and raise my awareness of strategy use.	
Ability to Withdraw	I can withdraw from this study at any time I want.	
Ability to ask questions	I understand that I can ask as many questions as I wish before I decide to take part in the study.	
Contact Information of Researchers	Dr. Rebecca L. Oxford, Principal Investigator Dept. of Curriculum & Instruction 2311 Benjamin Bldg. Phone: 301-405-8157 E-mail: ro38@umd.edu	Rae Lan, Ph. D. Candidate Second Language Education, Dept. of Curriculum & Instruction 2311 Benjamin Bldg. Phone: 301-405-8157 E-mail: raelan0116@yahoo.com
Contact Information of Institutional Review Board (IRB)	If I have any questions about my rights as a research participant or if I wish to report a research-related injury, I know that I should contact: Institutional Review Board Office, University of Maryland, College Park, Maryland, 20742; (e-mail) irb@deans.umd.edu; (telephone) 301-405-4212.	
Obtaining a copy of the research result	I understand that I may obtain a copy of the results of this research after May, 2005 by contacting Rae Lan at the Department of Curriculum & Instruction, 2311 Benjamin Building, University of Maryland, College Park, Maryland 20742-7635. Phone: 301-405-8157. E-mail: raelan0116@yahoo.com	

Printed Names of Parent of Participant: _____

Signature of Parent of Participant: _____Date:_____

Appendix N
IRB Documents

Request for Approval of Research Involving Human Subjects

1. **Abstract**:

The purpose of the research study is to investigate the Taiwanese elementary school English teachers' beliefs in strategy instruction. A newly developed inventory titled "Teachers' Beliefs Inventory in Strategy Instruction" (TBISI, designed by Rae Lan and Kay Moon under the mentoring of Dr. Rebecca Oxford) will be piloted with a group of about 150 teachers attending a Strategy Instruction Workshop conducted by Rae Lan in Taiwan in the summer of 2003. There has been lot's of research studies done on the teachers and students' beliefs in language learning in the field. However, this will be the very first study exploring the teachers' beliefs in language learning strategy instruction.

Since the participants in this study will be teachers attending the strategy instruction workshop, it will be the responsibility of the investigator to first explain the intent of conducting the survey both orally and in written form. Secondly, each participant will be asked to sign a copy of the Informed Consent Form. Participation in this study will be voluntary. Since it will be an anonymous study, there will not be any problems with the issue of individual confidentiality. There are also no physical risks involved in the process of the fifteen minute long survey.
Total word count: 202

2. Subject selection:

The principal investigator will be conducting a Strategy Instruction Workshop sponsored by a Taiwanese local publishing company. It will be joined by about 150 teachers who will apply and register for attending the workshop. The workshop will be held in three major cities in Taiwan, including Taipei, Taichung and Tainan. Each location will accommodate around 50 participants. Most of the participants will be elementary school English teachers who are interested in implementing strategy instruction in their classroom. Therefore, there is no selection process involved in the study.

3. Procedures:

The participants attending the strategy instruction workshop will be asked to take the ***Teachers' Beliefs Inventory in Strategy Instruction*** by the end of the workshop on a voluntary basis. The investigator will first explain the intent of conducting the survey both orally and in written form. Then each participant will be asked to sign a copy of the Informed Consent Statement. The process of administering the questionnaire will take about 15 minutes. The questionnaire was originally designed in English but will be translated into Chinese for the Taiwanese teachers for the reason of better comprehension and time saving. A copy of the TBISI will be attached.

4. Ricks and Benefits:

There will be no physical risks involved during the process of taking the questionnaire. Teachers will be participating on a voluntary basis. This questionnaire is designed to get better knowledge of what the teachers' beliefs are in strategy instruction. It will be particularly significant for the teachers to take the questionnaire at the end of the strategy instruction workshop because it will also inform the investigator on the extent to which the workshop was helping the teachers to build up more confidence in implementing strategy instruction in their own classrooms.

5. Confidentiality:

The questionnaire will be taken by the teacher participants in a anonymous fashion. No names will appear on the questionnaire and therefore no individual confidentiality will be hurt at all. The investigator is only interested in learning more about what the Taiwanese elementary school English teachers' beliefs are in strategy instruction. The questionnaires will be taken back to the States for data analysis. Data will be stored and kept by the investigator for as long as the duration of the research process. It is estimated that the data analysis will be completed by the end of 2003.The investigator will be the only person having the access to the data and the data will be destroyed after the completion of the research project.

6. Information and Consent Forms:

Information provided by the investigator to the participants will include a letter explaining the purpose of conducting the questionnaire and a Informed Consent Form. Both documents will be one page long. They will be attached by the end of this document.

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