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Self-Efficacy Beliefs and Self-Regulated Learning Strategies in Learning English as a Second Language: Four Case Studies

■ **These case studies provide a description of 4 fifth-graders' self-efficacy beliefs and use of self-regulated learning strategies related to studying English as a second language. Structured interviews with the children and their parents were conducted to investigate the family context of learning English and to elicit children's self-reported self-efficacy beliefs and self-regulated learning (SRL) strategies. In addition, students' responses to two questionnaires were used to examine the participants' self-efficacy beliefs and self-regulated learning behaviors. Thick descriptions through "emic" analysis of the interviews and cross-checking indicated a relationship between self-efficacy, self-regulated learning strategies, and participants' English language proficiency. Implications for teachers are discussed. ESL teachers should incorporate explicit SRL strategy instruction to facilitate the development of strategies suitable to students' characteristics and the language-learning context. Students' self-efficacy beliefs can be enhanced through successful past experience and positive feedback with scaffolding provided by teachers and parents.**

Introduction

There are 2.1 million speakers of English as a Second Language (ESL) in American public schools. Approximately 76% of public schools with ESL student enrollments provide ESL programs, but only about 30% of public school teachers instructing ESL students have training to teach ESL students. Fewer than 3% of teachers with ESL students have earned a degree in ESL or bilingual education (Hoffman, 2002). These figures indicate a strong need for teachers and educators to understand ESL children in public schools in general and to help them acquire English language proficiency in particular.

The first author lives at an international graduate student family center, where he has become acquainted with many international children. Some of them have been in the United States for a long time, and their English has become quite fluent. Other children, however, often struggle with learning ESL. Individual differences in rates of learning may be noticed. What environmental factors and individual differences influence this trajectory of learning? The purpose of this paper is to investigate individual differences in self-efficacy and self-regulation and their effect on learning ESL.

We approached this investigation from both social cognitive and sociocultural perspectives. Qualitative analytic techniques were used to provide an in-depth examination of participating ESL students' behaviors and beliefs. After a discussion of self-regulated learning (SRL), the role of self-efficacy beliefs in SRL, and characteristics of successful second language learners, we present four case studies of fifth-grade children. Through these case studies, we provide evidence for the relationship between self-efficacy and SRL strategies within the context of learning ESL.

Theoretical Background

Self-Regulated Learning. From a social cognitive perspective, self-regulation involves the interaction of personal, behavioral, and

environmental triadic processes (Bandura, 1986). Self-regulation is defined as "self-generated thoughts, feelings, and actions that are planned and cyclically adapted to the attainment of personal goals" (Zimmerman, 2000, p. 14). To be self-regulated, individuals need to use three important processes: self-observation, self-judgment, and self-reaction (Bandura, 1986), which enable individuals to monitor and adjust their behaviors accordingly. In addition, 14 categories of self-regulated learning strategies have been identified and associated with academic achievement (see Appendix A for list of strategies; Pape & Wang, 2003; Zimmerman & Martinez-Pons, 1986, 1988, 1990).

From a sociocultural perspective, the regulation of children's behaviors is a shared act and an interpersonal phenomenon, and self-regulatory capacities develop within the context of adult-child interactions. Within these interactions "children begin to use language not only to communicate but to guide, plan, and monitor their activity" (Diaz, Neal, & Amaya-Williams, 1990, p. 135). Through speech, children's cognitive operations gain greater flexibility, freedom, and independence from environmental stimuli. Children's behaviors and actions begin to depend less on the environmental stimuli as they become guided by plans. Speech provides children with the tools to master their own behavior and gain control of the environment (Vygotsky, 1978). By audibly controlling their behaviors through private speech, children gradually take over the caregiver's role of external control. Self-regulatory capabilities are finally established with the internalization of private speech.

Self-Efficacy, SRL Behavior, and Learning English as a Second Language. Bandura (1997) defined self-efficacy as individuals' judgments of their capabilities to organize and execute courses of actions required to produce given attainments. Students' self-efficacy is influenced by their learning performance (Wang & RiCharde, 1987), and their academic achievements are influenced by their self-efficacy beliefs (Pajares & Miller, 1994; Zimmerman & Martinez-Pons, 1990). For example, students' judgments about their capabilities to solve mathematics problems have been shown to be more predictive of their success in solving the problems than other variables (Pajares & Miller, 1994).

Zimmerman and Martinez-Pons (1990) reported that students' perceptions of both mathematical and verbal efficacy were positively correlated with their use of SRL strategies and negatively correlated with their seeking adult assistance. This finding supports Ellis's (1989) argument that good language learners prefer to take charge of their own learning rather than to rely exclusively on the teacher. These results have been replicated in studies of the American Language Program (Wenden, 1987), arithmetic proficiency (Schunk, 1981), and language learning (Oxford & Nyikos, 1989). Highly efficacious children have been found to persist longer and achieve more success. A related finding in language-learning studies indicates that higher self-perceived proficiency in language skills is associated with greater use of learning strategies (Oxford & Nyikos, 1989). Perceived competence is also a major component of self-concept. "There is at least considerable overlap in the makeup of academic self-concept and academic self-efficacy and that perception of academic capability is the major common denominator between the two" (Bong & Shaalvik, 2003, p. 11). During the early stage of development, self-concept may be indistinguishable from self-efficacy judgments. As students obtain more enactive attainment and vicarious experiences as well as consistent feedback from significant others, such as teachers and parents, their competence perceptions toward particular tasks gradually become more stable. Perceived self-efficacy in a specific academic domain correlates significantly with academic self-concept in that area (Bong & Shaalvik, 2003).

Characteristics of Good Language Learners. Good language learners are concerned primarily with learning how to communicate and believe that the best way to

learn a language is through the use of that language (Ellis, 1989). They are willing to take risks and take charge of their own learning rather than relying exclusively on the teacher (Ellis, 1989; Rubin, 1975). Successful language learners are tolerant of the ambiguity and vagueness in language, persistent in pursuing their goals, and aware of the learning process (Ellis, 1989). They tend to guess the meaning of unknown words from the context and frequently use circumlocution and gestures in communication (Rubin, 1975). Cognitively, they attend to language forms by analyzing, categorizing, and synthesizing (Rubin, 1975). A good language learner employs strategies appropriate to his or her own personality, age, sex, purpose, and learning context, while not-so-good language learners often use less effective learning strategies (Bates, 1972). Good language learners use conscious learning strategies not only in the classrooms but also in out-of-classroom daily activities (Chamot, 1987). Learning strategies in language contexts have been described as "specific actions taken by the learner to make learning easier, faster, more enjoyable, more self-directed, more effective, and more transferable to new situations" (Oxford, 1990, p. 8; see Appendix B).

In a study of high school ESL students, differences in individual strategy use were found between beginning and intermediate level ESL students (Chamot, 1987). Metacognitive strategies such as self-management, advance preparation, and self-monitoring were favored by intermediate-level students. Contextualization was used more often among intermediate-level students while translation and imagery tended to be favored by beginning-level students. Moreover, many more intermediate-level students used strategies for oral presentations than did beginning-level students.

In a case study of a successful and a less-successful second language learner, Abraham and Vann (1987) illustrated individual differences in choice of strategies. The successful learner used more strategies overall, a greater variety of both learning and communicative strategies, and was more concerned with the correctness of forms, more willing to guess meaning, showed higher persistence, used more production strategies such as paraphrasing to make himself understood, and employed many more clarification/verification strategies. These characteristics of successful language learners are similar to descriptions of self-regulated learners who are described as active participants in the learning process. Self-regulated learners control their cognitive processes, motivation, and emotions (Zimmerman, 1994, 2000).

The Present Study

The purpose of this study is to describe four ESL students' self-efficacy beliefs and use of SRL strategies and to investigate the relationship between the participants' self-efficacy beliefs, use of SRL strategies, and success in learning ESL. We also document the communicative activities of high and low self-efficacy children.

Methods

Participants

Four fifth-grade children who were learning ESL and 1 parent of each participated in this study. Three participants were 10 years old, and 1 was 11 years old. There were 1 girl and 3 boys. Three of them are from China, and 1 is from Taiwan. At the time of the study, 2 children had been in the United States for at least 4 years and had achieved English proficiency close to that of native speakers of English. The remaining 2 children had been in the United States for about half a year; thus, their English was still limited. All of the student participants attended the same elementary public school in a Midwest urban area. At least 1 parent of each of the participants had either earned or was working toward a doctoral degree.

Measures

Two measures were used in this study. The *ESL Self-Efficacy Questionnaire* was composed of 23 items that required the students

to indicate how well they performed specific language tasks in the areas of listening, speaking, reading, and writing English—for example: "How well can you understand movies in English?"; "How well can you speak to your teacher in English?"; "How well can you understand English stories when reading?"; and "How well can you write a note to your friends in English?" Students reported their beliefs of their capabilities on a scale from 1 for "not being able to do it" to 5 for "being able to do it very well."

The *ESL SRL Strategy Questionnaire* was composed of 15 open-ended questions. Students reported the strategies they used to accomplish particular language-learning tasks. Examples from this questionnaire included: "What do you do if you meet a word that you do not understand when you are watching an English TV program?"; "What do you do when you make a mistake on your homework?"; and "How do you help yourself study English?"

Procedure

Three interviews with each child and one interview with each parent were conducted over 3 months during the summer of 2001. The parents and children were interviewed in their homes. The student interviews were designed to elicit the student's background information, use of English at home, self-efficacy beliefs, and SRL strategies. These interviews included the two measures, *ESL Self-Efficacy Questionnaire* and *ESL SRL Strategy Questionnaire.* The parent interview was developed to elicit the parent's background information, language spoken in different contexts, and his or her child's strategic behavior in relation to learning English. Questions that emerged during data analysis prompted follow-up interviews (two for each participant) to clarify beliefs and behaviors. Most interactions were conducted in English. Infrequently, the questions were paraphrased in the students' native language (i.e., Chinese) to facilitate understanding.

Observations of these children's behaviors in several contexts served as triangulation to establish the trustworthiness of the data. Formal observations consisted of reading tasks during which the children were asked to read a passage and describe their strategies. Informal observations occurred while the children were playing with their peers in a natural setting. Field notes were written during observations. Transcribed data were shown to participants for member checks. Peer debriefing was conducted to provide the perspectives of peers regarding our methods, assumptions, and data representations.

Data Coding

Participants' levels of self-efficacy and SRL strategy use were determined from their responses to the questionnaires and interviews. Students' self-efficacy judgments were developed from two sources: their mean self-efficacy ratings on the *ESL Self-Efficacy Questionnaire* and their statements related to their abilities and confidence to perform academic tasks. Level of self-efficacy was based on a comparison across the four case studies. Students' use of SRL strategies was documented through their responses to open-ended questions on the *ESL SRL Strategy Questionnaire* and the number of different strategies elicited during the follow-up interviews. The strategies reported during the student interviews were grouped according to 14 categories of SRL strategies, which include self-evaluation, organizing and transforming, goal-setting and planning, seeking information, keeping records and monitoring, environmental structuring, self-consequences, rehearsing and memorizing, seeking peer assistance, seeking teacher assistance, seeking adult assistance, reviewing tests, reviewing notes, and reviewing texts (see Appendix A; Pape & Wang, 2003; Zimmerman & Martinez-Pons, 1986). Two coders reviewed and coded the data according to the 14 categories, and discrepancies were discussed until consensus was reached. The students' level of self-regulated learning-strategy use

was based on a comparison across the sample of case studies.

Report of the Four Cases

Each of the individual learners is presented as a case study. From these cases, we examine trends related to relationships between self-efficacy, strategic behavior, and language achievement. To ensure confidentiality, participants' names were changed.

Andrew Wong

Andrew was a 10-year-old boy at the time of the study. He came to the United States when his father began to pursue a doctoral degree 5 years earlier. He was born in Taiwan, and the dominant home language was Chinese, although sometimes the family spoke Taiwanese and English. Andrew started learning English when he arrived in the United States and was more fluent in English than in Chinese at the time of this study. In addition to English and Chinese, Andrew also spoke some Taiwanese, but he used this language only when he talked to his grandparents on the phone. Andrew's parents were very concerned with his English when they arrived in the United States but more concerned with his Chinese when this study was conducted because they were returning to Taiwan after the summer.

Andrew's mean self-efficacy rating (4.26) was the highest in the group. His comparatively high mean rating was supported by his responses during the interview. He reported being able to write letters to his friends in English, to talk to other children in English, to understand English books well, and to do his English homework without help. Andrew's mother believes he is a good reader. During her interview, she commented, "He likes to read. He can read very thick books like chapter books."

Andrew reported many SRL behaviors. He noticed his English-language mistakes and used this information to improve his English; proofread his writing assignments to check his spelling, grammar, and syntax before submitting them to his teacher; and asked for help when he was not certain about English. In addition to using the dictionary for checking unknown words, Andrew indicated using a dictionary to check word usage. The following excerpt from the interview demonstrates additional strategies, including rehearsing and memorizing, seeking social assistance, and seeking information:

Interviewer: How do you help yourself remember a new word in English?

Andrew: I just say the word, speak the word, look at the word, then cover the word. It's like a method of trying to remember.

Interviewer: So what you mean is that you cover the word so…

Andrew: You cover it and say it. Yeah. Just cover it so you don't look at it. Then just say it and then write it.

In the following excerpt his seeking social assistance and seeking information behaviors are exhibited further:

Interviewer: What do you do when you meet a word that you do not understand while you are talking to a friend, listening to a story, watching an English TV program, or reading a book?

Andrew: I just try to act like I know that what they were doing, what they were talking. I act as though I know that word. But if it's not really that word, I will try to ask. If I am listening to a story and I don't know, well, it depends. If it is on like cassettes, I might go and check the dictionary. If it's someone we are talking, I will raise my hand and ask what

	the word is.
Interviewer:	What if you are watching an English TV program?
Andrew:	Well, I just like feeling the word is something that I know, feeling special with, maybe I don't know. Oh! I check the picture.
Interviewer:	What about reading a book?
Andrew:	Check the dictionary or guess the word from the context.

This excerpt also shows his confidence with his knowledge of the English language and his feelings related to his competence.

In summary, Andrew is an efficacious child who is confident in his English-language skills and who thus does not feel shy when speaking English. He considers himself a good reader and enjoys reading. He also demonstrates a variety of SRL strategies. According to Oxford's (1990) definition, many of these behaviors are metacognitive in nature. He is able to manage his schoolwork by himself, study for tests, and monitor his progress while studying. These metacognitive strategies indicate that he is able to control his own behaviors to achieve his goal. Moreover, when he does not understand an English word the first time while reading, he tries several strategies to understand the word. These behaviors are consistent with researchers' claims that efficacious children are more likely to persist in the face of difficulties (Abraham & Vann, 1987; Ellis, 1989; Schunk, 1990).

Tom Liu

Tom was also 10 years old and was in the same grade at the same school with Andrew at the time of this study. Unlike Andrew, his English was very limited as he had been in the United States for only half a year, and he spoke exclusively Chinese at home. His father was a university visiting scholar. Tom liked English, which pleased his father because he wanted Tom to learn English well. Both he and his father believed that Tom was a slower learner because he spent a long time doing his homework. He had a private tutor to help him study English. His parents were very strict with him and seldom allowed him time for play because he could not finish his homework quickly.

Tom's mean self-efficacy rating (2.83) was the lowest in the group. He strongly agreed that it is difficult for him to concentrate on learning tasks in English, his English homework worries him, and he finds a lot of reading and writing homework in English hard to do. Moreover, he agrees that he avoids trying to read new English books when they look too difficult for him and admits having problems in answering questions in English. The following excerpt from the interview supports our judgment that he is less efficacious than other children in this study:

Interviewer:	Do you feel shy when speaking English? Why or why not?
Tom:	Maybe. Because I don't want to make mistakes when speaking English.

This indicates that he lacks confidence in speaking English, which is related to his lower self-efficacy.

Tom reported far fewer strategies during the interview, and these strategies were very simplistic. When he was asked how he helped himself to remember a new word in English, his response was simply, "Write, remember, many times." Moreover, the only strategy he reported to support his understanding while reading was to use the dictionary. He described the strategy of rehearsing and memorizing quite a few times. To him, learning English was just to write, to remember, and to use the dictionary. He showed no sign of using any functional strategies, which have been shown to be beneficial to the learning outcome (Nyikos & Oxford, 1993). A second interview with Tom revealed that he did not have many friends, had little opportunity to speak with English-speaking children, and preferred playing with Chinese speakers and watching Chinese TV programs.

In summary, Tom encountered great difficulty completing his homework in a timely manner because he had to frequently check his dictionary for unknown words. This difficulty may contribute to his lower self-efficacy. During the interview, he repeated the same strategies under different situations. This finding is consistent with Pape and Wang's (2003) findings that lower-achieving students repeated ineffectual strategies, and that some unsuccessful problem-solvers' only strategy was to read and reread mathematics word problems. For Tom, learning English is analogous to checking the dictionary and acquiring vocabulary rather than practicing functional use of the language through everyday experiences. This also supports Abraham and Vann's (1987) finding for the less-successful individual in their study.

Angela Zhao

Angela was born in China and had been in the United States for 4 years at the time of this study. Her father earned a doctoral degree in the United States and was working at an American company. According to her father, Angela spoke English as well as other American children her age. She was so used to speaking English that even when her father spoke Chinese to her she responded in English. The only place that she spoke Chinese was in a Chinese school on Sundays. Her father reported that Angela didn't need his help on schoolwork, and she reported her belief that her English was "way better" than her Chinese although she was aware that English was her second language.

Angela's mean self-efficacy rating (3.57) was the second-highest in the group. She thought that she was pretty good at reading in English and writing letters to her friends. She reported that she learned English easily. Observations of her performing a reading task offered evidence that she showed perseverance in reading difficult English books.

The excerpt that follows is from our conversation and illustrates Angela's high perceived English competence, which is related to her self-efficacy for speaking English:

Interviewer: Do you mind being corrected? Are there certain circumstances that you prefer not to have your English corrected?

Angela: No, I don't mind. It's just like an accident. When it is a really easy word and I just accidentally make a mistake. But if it's a word that I just don't know how to say, I don't mind if they correct me.

Angela's confidence in her English-speaking ability supports her related belief that she is fully capable of accomplishing the task of expressing her ideas in English.

Angela demonstrated a variety of SRL strategies related to studying ESL. She reported that while she was reading she often stopped after a few chapters and thought about what had happened so far. This organizing and transforming strategy was also displayed when she tried to remember a new word in English:

Interviewer: If you meet a new word that you do not know, what do you do in order to remember that new word?

Angela: I try to think of a word that sounds like it and try to compare the similarities so that I can like learn it easily.

Although she mentioned during the interview that she used a dictionary when she read, she said that she would first try to guess the meaning of an unknown word by using the context of the sentences in which it was embedded because she did not want to be distracted. She also indicated that she studied in her own room and locked the door when her sister was watching TV in the next room, which is an example of environmental structuring. The following excerpt indicates her skill in goal-setting and planning:

Interviewer: What do you do to prepare for a test?

Angela: I study. When I don't . . . when I go home and know that there is going to be a test the next day. I don't study it when I am doing my homework. Usually I study at night cus [sic] that's how all the stuff comes to my brain and then when I wake up in the morning, I look at the words again.

In summary, in relation to English language learning Angela is an efficacious child and her English proficiency is well developed. The strategies that she demonstrated while studying English indicate a high degree of self-regulation. She no longer needs her parents' help in doing her homework, learning new words, and preparing for her exams.

David Xu

David was also 10 years old, but he had been in the United States for only half a year when this study started. Chinese was the only language spoken in his home. His father had already earned a doctorate in Germany, where David completed his study in the second and third grades. As a result, David was able to speak some German as well. Unlike Tom's parents, David's parents were both working and seldom had time to help him with English. Instead, David went to a summer school in an ESL program. His parents were less concerned with his English and did not hire a tutor for him.

David's mean self-efficacy rating (3.52) was the third among the group but quite similar to Angela's average rating and far above Tom's efficacy rating. Thus, he was more similar to the high self-efficacy group. He thought that he was pretty good at reading in English, his English writing homework was easy, and he was able to talk to other kids in English. On the self-efficacy questionnaire he also indicated that, like other highly efficacious children, he was persistent in reading when the book seemed hard for him to understand. Nevertheless, he was not confident with his writing skills as indicated by his uncertainty regarding whether he could write an English story and he strongly disagreed that he was able to write a letter to his friends in English. Like Tom, he preferred the translation of a new English word into Chinese to an explanation of that word in English. He reported that he liked to watch both English and Chinese TV programs and to play with both English and Chinese speakers.

David indicated using several SRL strategies. He reported that he asked a speaker to slow down or speak again when he did not understand, planned his schedule to accommodate studying for English, tried different ways of expressing the same idea in English, talked to English-speaking people to improve his pronunciation, and chose a quiet place to study English. The following excerpt from our interview reveals more strategies that he used:

Interviewer: How do you help yourself to remember a new word in English?

David: I think of another word that sounds same. Like when I am learning the word *lamp*, I think another word that I know like *camp*.

To learn the new word *lamp*, David made a connection with a known word, *camp*. Although these two words are not related in the meaning, they share the same phonemes */æmp/* and letters *a-m-p*. In so doing, David transformed and organized the new word *lamp* in comparison to the known word *camp*. This is an example of the SRL strategies: organizing and transforming. David also reported the SRL strategy of seeking information in the following excerpt:

Interviewer: How do you help yourself understand and remember what you have read?

David: Look at the picture of the book. Reread a lot of times.

In addition, David reported that if he were listening to a story on the radio that he did not understand, he would get a book about the story. His strategy of seeking information on his own initiative indicated his high level of self-regulation.

In summary, David is an efficacious child who believes that English is easy to learn. He does not want people to correct his mistakes on the use of words because he thinks that he can communicate his ideas well. He is not efficacious, however, to complete English writing tasks. He demonstrates many more strategies in learning ESL than Tom, who has been in the United States for the same length of time, and his strategies are close to those of proficient English speakers. Unlike Tom, he finishes his homework in about an hour and has a lot more social activities than Tom does. He views English as a tool rather than something to remember. As a result, he pays more attention to communicative purposes than to language forms.

Conclusions

The two proficient English speakers, Andrew and Angela, who each completed the ESL program and 4 years of study in elementary school in the United States, are also self-efficacious. This provides some support in these students for the relationship between students' performance and their self-efficacy beliefs (Wang & RiCharde, 1987; Zimmerman & Martinez-Pons, 1990). These highly efficacious participants also demonstrated a number of different learning strategies during the interview. The strategies they reported not only outnumbered those reported by less-proficient participants in this study, David and Tom, but they also represented a wider variety of categories of SRL strategies. Even between the two students whose proficiency in speaking English was limited, David, the more proficient speaker, was more efficacious and demonstrated more SRL strategies than Tom, who was less proficient. Among these children, there seems to be evidence for a relationship between self-efficacy beliefs and SRL behaviors. High self-efficacy participants, Andrew, Angela, and David, reported more active communicative styles than the lower self-efficacy participant, Tom. Our data indicate that students who reported more SRL strategies were those who considered themselves good language learners. Thus, among our participants there seems to be a positive relationship between SRL strategies and students' success in learning ESL.

Since these participants are young, their parents may influence their self-efficacy and self-regulation. Interestingly, both Tom and David are required by their parents to study English on Sunday. Tom goes to a tutor's house, and David attends an English class, which may help explain these students' self-efficacy and SRL behaviors. Tom is less efficacious and more introverted. He prefers to use a dictionary instead of seeking social assistance. Each of these language-learning characteristics may result from his relatively infrequent opportunity to practice English with his peers. As a result, he has less opportunity for feedback or self-evaluation of his English skills, which may contribute to his lack of self-efficacy since continuous feedback regarding the adequacy of performance is influential to student self-efficacy beliefs (Keyser & Barling, 1981). David, on the other hand, is more social and uses a dictionary only when there is nobody around, which may stem from the availability of social support in his environment. His comparatively high self-efficacy may be the result of his frequent opportunities to speak English with his peers. He also realizes that "English is easy to learn." His self-efficacy is thus enhanced by positive feedback he receives for his English proficiency, which supports similar findings in the research literature (e.g., Schunk, 1994).

Although these findings are confined to four individual case studies, there are important conclusions we might draw from these case studies. There is a relationship among these children's self-efficacy, SRL strategies, and their success in learning English. The children with high self-efficacy reported

more SRL strategies and experienced more success in learning English than the children with comparatively lower self-efficacy. Thus, further studies with a different population are needed to examine and expand these results.

Limitations of the Study

This study represents an initial investigation of the relationships between self-efficacy and SRL in the domain of ESL using case-study methodology. The findings are necessarily limited to the participants in the study. Moreover, all participants in this study are from the Chinese culture; therefore, cultural differences are not considered although ethnic culture and even individual differences in personal characteristics cannot be ignored when considering self-efficacy and SRL strategy choices (Oxford & Nyikos, 1989; Purdie & Hattie, 1996). Still another potential limitation is that the participants are all from families of international graduate students, which limits the interpretations of the findings to this group of students.

Significance of the Study

Many studies have indicated that students may benefit from support using SRL strategies (Butler, 1998; Oxford, Crookall, Cohen, Lavine, Nyikos, & Sutter, 1990; Oxford, Lavine, & Crookall, 1989; Wenden, 1987). Studies about students' use of language-learning strategies indicated that effective learners were more flexible with their repertoire of strategies and more effective at monitoring and adapting their strategies. Moreover, less effective learners have difficulty with details whereas more effective learners focused more on the task as a whole. For instance, more effective learners seem more comfortable guessing or skipping some individual words when they are decoding words. They use background knowledge and make inferences. Less effective students, however, use the dictionary only when decoding words (Chamot & El-Dinary, 1999).

The participants in this study who have higher efficacy for learning ESL and who are more proficient employ more strategies for learning the language. Thus, ESL teachers should incorporate explicit instruction related to SRL strategies and help students develop strategies suitable to their characteristics and the learning context. Parents of an ESL child may also teach SRL strategies, gradually withdrawing their support and facilitating their child's developing self-regulation.

Another significance of this study lies in our investigation of self-efficacy beliefs. The relationship between self-efficacy, self-regulation, and achievement is well documented (Pajares & Miller, 1994; Wang & RiCharde, 1987; Zimmerman & Martinez-Pons, 1990; Zimmerman & Ringle, 1981), but it has not been studied within the realm of learning ESL (Huang, Lloyd, & Mikulecky, 1999). This study indicates that children's self-efficacy beliefs may influence the strategies they choose to learn the language and their success in learning the language. In addition, studies of self-efficacy beliefs show that students' self-efficacy can also be enhanced and promoted through classroom teaching (Pajares, Miller, & Johnson, 1999; Pajares & Valiante, 1997; Wang & RiCharde, 1987; Wenden, 1987) and through modeling (Schunk & Hanson, 1985; Wang & RiCharde, 1987; Zimmerman & Ringle, 1981).

Teaching students different cognitive and self-regulatory strategies may be more important for improving their actual performance on classroom academic tasks, but improving students' self-efficacy beliefs may lead to more use of these cognitive strategies (Pintrich & DeGroot, 1990). The findings from this study and from previous studies indicate that students' self-efficacy beliefs are not fixed but rather task-specific (Klassen, 2004). This is very encouraging to classroom teachers because unsuccessful students in one area can be taught to be successful in another area, and students can also be taught from not being successful to being successful in a particular area. Their self-efficacy beliefs to perform language-learning tasks can then be enhanced through their successful past experience and lead to their future success in

similar language-learning contexts.

This case study involves students from Chinese or Taiwanese family background only. Future research should include students from a variety of family backgrounds and use both qualitative and quantitative research methodologies to acquire in-depth descriptions of individual students as well as results that are able to be generalized from samples to populations.

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Appendix A
Self-Regulated Learning Strategies

	Category definitions	*Examples of ESL children*
1.	Self-evaluation: Self-initiated evaluations of the quality or progress of students' work.	Check the writing before turning it in to the teacher.
2.	Organizing and transforming: Self-initiated overt or covert rearrangement of instructional materials to improve learning.	Translate English into their native language to help memorize the word.
3.	Goal-setting and planning: Setting educational goals or subgoals and planning for sequencing, timing, and completing activities related to the self-set goals.	Adjust what to write in a journal entry by checking how much time is left.
4.	Seeking information: Self-initiated efforts to secure further task information from nonsocial sources.	Look for the meaning of a word in a dictionary.
5.	Keeping records and monitoring: Self-initiated efforts to record events or results.	Take down an unknown word to ask for help later.
6.	Environmental structuring: Self-initiated efforts to select or arrange the physical setting to make learning easier.	Study in one's own room.
7.	Self-consequences: Student arrangement or imagination of rewards or punishment for success or failure.	Jump up and down when one gets good results of study.
8.	Rehearsing and memorizing: Self-initiated efforts to memorize learning materials by overt or covert practice.	Write the word many times on paper in order to memorize it.
9.	Seeking peer assistance: Self-initiated efforts to solicit help from peers.	Ask a friend.
10.	Seeking teacher assistance: Self-initiated efforts to solicit help from the teacher.	Ask the teacher for help.

11.	Seeking adult assistance: Self-initiated efforts to solicit help from adults.	Ask parents.
12.	Reviewing tests: Self-initiated efforts to reread tests.	Reread the past test.
13.	Reviewing notes: Self-initiated efforts to reread notes.	Reread the notes.
14.	Reviewing texts: Self-initiated efforts to reread texts.	Reread the textbook.

Note: *Adapted from "Development of a Structured Interview for Assessing Student Use of Self-Regulated Learning Strategies," by B. J. Zimmerman and M. Martinez-Pons, 1986,* American Educational Research Journal, 23, *p. 618. Copyright 1986 by the American Education Research Association. Adapted with permission.*

Appendix B
Learning Strategies Favored by Good Language Learners

Dichotomous classification	***Strategies***	***Substrategies***	***Examples of strategies***
Direct strategies	Memorization	Creating mental linkages	Grouping/Associating/ Elaborating
		Applying images and sounds	Using imagery/ Semantic mapping
		Reviewing	Structured reviewing
		Employing action	Using physical responses/ Using mechanical tricks of sensation
	Cognitive	Practicing	Repeating/Formally practicing
		Receiving and sending messages	Getting the idea quickly/ Using resources for receiving and sending messages
		Analyzing and reasoning	Reasoning deductively/ Analyzing expressions
		Creating structure for input and output	Taking notes/ Summarizing
	Compensatory	Guessing intelligently	Using linguistic clues/ Using other clues
		Overcoming limitations in expression	Switching to the mother tongue/Getting help

Indirect strategies	Metacognitive	Centering the learning	Linking with known material/Paying attention
		Arranging and planning the learning	Organizing/Setting goals and objectives
		Evaluating the learning	Self-monitoring/ Self-evaluating
	Strategies	***Substrategies***	***Examples of strategies***
	Affective	Lowering anxiety	Using music or meditation/ Using laughter
		Encouraging oneself	Making positive statements/ Rewarding oneself
		Taking emotional temperature	Writing a language-learning diary/Discussing one's feelings with others
	Social	Asking questions	Asking for clarification/ Asking for correction
		Cooperating with others	Cooperating with peers/ Cooperating with proficient users of the language
		Empathizing with others	Developing cultural understanding/Becoming aware of others' thoughts and feelings

Note: *Adapted from* Language Learning Strategies: What Every Teacher Should Know, *by R. L. Oxford, 1990, pp. 18-21. Copyright 1990 by Heinle & Heinle. Adapted with permission.*