Title:

The relationship of school year, sex and proficiency on the use of learning strategies in learning English of Korean junior high school students.

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Abstract

The present study investigated the use of language learning strategies of 325 Korean secondary school students of English as a foreign language, 163 boys and 162 girls with a consideration of variables such as sex, school year, and proficiency in grammar, specifically the use of prepositions. The subjects were attending a boys' or a girls' middle school in Pusan, Korea. Strategy use was assessed through a Korean translation of the Strategy Inventory for Language Learning (SILL) (Oxford, 1990), and proficiency was determined by a cloze test. The major findings were that the reported frequency of strategy use by the students was moderate overall, with the students reporting most frequent use of compensation strategies and least of affective strategies. Girls showed more frequent use of all six strategy categories than boys, and third school year students employed compensation and memory strategies more often, whereas first school year students employed metacognitive, cognitive, affective and social strategies more often. Cognitive strategies showed the highest correlation with metacognitive and memory strategies. Those students who scored highly on the cloze test reported using strategies more often than the low proficiency group. It was revealed that the students' sex, school year, and proficiency had a significant relationship on their use of learning strategies. Some implications of the findings are discussed along with suggestions for further research.

Introduction

Learning strategies have received much attention since the late 1970s and the investigation of language learning strategies has advanced our understanding of the processes learners use to develop their skills in a second or foreign language. Reiss (1985) reported that during the past decade, the emphasis on foreign language research had shifted from the teacher to the learner, and educational research had identified a number of factors that account for some of the differences in how students learn. However, Harlow (1988) insists that although the instructional process involves both teacher and learner, the bulk of research efforts throughout the history of education have centred upon teaching techniques, while neglecting the importance of learner himself. As Rubin (1975) argues, many foreign language teachers are so concerned with finding the best method or with getting the correct answer that they fail to attend to the learning process. Dansereau (1978) also notes serious limitations to the over-emphasis on teaching methods, such as inadvertent reinforcement of ineffective and non-transferable learner strategies. This is in accordance with the current interest of Korean educational fields, especially in the field of English Education. The interest centred on students and their learning, so how students learn and how can they be guided to learn well matter much more than teachers and teaching.

The most general finding among the investigation of language learning strategies was that the use of appropriate language learning strategies leads to improved proficiency or achievement overall or in specific skill areas (Wenden and Rubin 1987; Chamot and Kupper 1989; Oxford and Crookall 1989; Cohen 1990; O'Malley and Chamot 1990; Oxford 1993; Oxford et al. 1993). These studies also supported the notion that the use of appropriate learning strategies enables students to take responsibility for their own learning by enhancing learner autonomy, independence, and self-direction (Oxford and Nyikos 1989). In this regard, it appears to be extremely important that teachers of a second or a foreign language should learn to identify and comprehend how the strategies of their students are applied in varied language activities.

Then the teachers can play an active and valuable role, which can enhance the work of language teachers. Further, O'Malley et al. (1985b) also suggested that the learning

strategies of good language learners, once identified and successfully taught to less competent learners, could have considerable potential for enhancing the development of second language skills. Considering these, I would like to suggest that if we, language teachers knew more about what the "successful learners" did, we might be able to teach these strategies to poorer learners to enhance their success record. Thus, this study is based on the idea that "an understanding and awareness of learning strategies on the part of teachers as well as students may provide valuable insights into the process of language learning." (Fleming and Walls 1998:14)

In spite of the increasing popularity of research on learning strategies since the mid 70s, the topic of learning strategies is still a new research area in Korea, especially in the secondary school context. There have been few studies on the use of learning strategies of the individual Korean secondary school students. They may develop their own understanding or models of the foreign language. They do perform many tasks in the classroom. However, they are not asked systematically to describe in detail how they proceed in performing them. As Hosenfeld (1976) pointed out, teachers focus upon the results but rarely upon the learning strategies that students use to arrive at the results and they spend comparatively little time talking to learners about their learning. These matters need to be taken into account by Korean secondary school teachers because their students need to keep on learning foreign languages, even when they are no longer in a formal classroom setting. Both students and teachers are well aware of the importance of studying English for gaining admission into a high school or a college as well as for future job opportunities. On the teachers' part, if they include learning strategies as part of their instruction, they can play an active and valuable role in helping their students to become successful learners of the target language. Thus, research on the language learning strategies of Korean Secondary school students should not only sensitise Korean students and teachers to the use of these strategies but also encourage them to develop their own profiles of the learning strategies at work in their classrooms.

The major purposes of this study are

(1) to identify the range, type and frequency of language learning strategies used by Korean secondary school students.

(2) to investigate the relationship of sex, school year, and proficiency in grammar specifically in prepositions on the use of learning strategies.

For the purposes of this study, the following assumptions were made

that there will be significant differences in the reported use of strategies between boy students and girl students,

between the first school year students and the third school year students,

between students in the level of high proficiency in grammar and those in the level of low proficiency in grammar.

Review of Literature

2.1. The good language learner

Many researchers have described successful language learners and their strategies. One major finding among them is that successful language learners in general use more and better learning strategies than do poorer learners (Oxford; 1989,1993). This result has appeared consistently in L2 learning strategy studies (Stern 1975; Rubin 1975; Hosenfeld 1977; Naiman et al. 1978). These early researchers tended to make lists of strategies presumed to be essential for all good language learners. For instance, by means of observation and interviews with learners and teachers, Rubin (1975) suggested the good language learner is a willing and accurate guesser; has a strong, persevering drive to communicate; focuses on form by looking for patterns; takes advantage of all practice opportunities; monitors his or her own speech as well as that of others; and pays attention to meaning. Naiman et al. (1975) named six strategies of good language learners: selecting language situations that allow one's preferences to be used; actively being involved in language learning; seeing language as both a rule system and a communication tool; extending and revising one's understanding of the language; learning to think in the language; and addressing the affective demands of language learning. Hosenfeld (1976) introduced the "think aloud" introspective process to determine what strategies learners use

while performing language tasks. A large scale study by Naiman et al. (1978) utilized case studies with adults, classroom observations, and interviews with students to elicit second language success factors. Five general strategies were identified, including the fact that the good learner uses the language in real communication and monitors his/her interlanguage. Rubin (1981, 1987) identified strategies contributing to language learning success either directly, for example, inductive, inferencing, practice, memorization or indirectly, for example, creating practice opportunities, using production tricks. Other studies investigated the identification of all possible strategies used by successful learners and refined the process of eliciting these strategies.

In addition, Oxford (1989) synthesized earlier work on good language learning strategies in general and in relation to each of the four language skills. The resulting strategy system suggests that good language learners use strategies in six broad groups: metacognitive, affective, social, memory, cognitive and compensatory. Good language learners manage their own learning process through metacognitive strategies, such as paying attention, self-evaluating, and self-monitoring. They control their emotions and attitudes through affective strategies, such as anxiety reduction and self-encouragement. They work with others to learn the language, using social strategies like asking questions and becoming culturally aware. They use memory strategies, such as grouping, imagery and structured review, to get information into memory and to recall it when needed. They employ the new language directly with cognitive strategies, such as practising naturalistically, analysing contrastively and summarising. Finally they overcome knowledge limitations through compensatory strategies, like guessing meanings intelligently and using synonyms or other production tricks when the precise expression is unknown.

Only in a few studies (Hosenfeld 1976; Abraham & Vann 1987; Chamot & Kupper 1989) have unsuccessful language learners been observed. Three distinct points of view exist in the studies with respect to strategies of less effective L2 learners. The first view is that less effective L2 learners do not really know what strategies they use; they cannot readily describe their strategies (Nyikos 1987). The second perspective is that such learners use fewer strategies than those of more successful learners, and that strategies of less effective

learners often involve non-communicative or rather mundane strategies such as translation, rote memorization, and repetition (Nyikos 1987). The third viewpoint is that many ineffective L2 learners are indeed aware of their strategies and use just as many as do the more effective learners. However, less skilled learners apply these strategies in a random, even desperate manner, without careful orchestration and without targeting the strategies to the task and they do not demonstrate the careful orchestration and creativity shown by more effective learners (Vann & Abraham 1990). It may be that each of the three findings is true for at least some less effective learners. It is likely that L2 learners who are less successful are not all just alike in their uses of learning strategies. Some of these learners might be very limited in the number and quality of their strategies, others might be unaware or out of touch, and still others might use large numbers of strategies that lack coherence. More research is needed comparing less effective learners with their more successful counterparts.

2.2. Language learning strategies

Research into what learners do to learn a language has resulted in the identification of specific strategies and in attempts to classify them in some way. Learning strategies have been broadly defined as "specific actions or techniques that students use, often intentionally, to improve their progress in developing L2 skills" (Green and Oxford 1995:262). Dansereau (1985) defined learning strategies as a "set of processes or steps (used by a learner) that can facilitate the acquisition, storage, and /or utilization of information" (p. 210). O'Malley and Chamot (1990) define strategies as intentional cognitive or affective actions taken by the learner in order to learn both simple and complex material. Oxford (1990) argues that the definition commonly used does not fully convey the excitement or richness of learning strategies and expands the definition by saying: "learning strategies are specific actions taken by the learner to make learning easier, faster, more enjoyable, more self-directed, more effective, and more transferable to new situations" (p. 8), and for Cohen (1990) the most characteristic feature of learning strategies is that they are "learning processes which are consciously selected by the

learner" (p. 5). According to Weinstein and Mayer (1986), learning strategies have learning facilitation as a goal and are intentional on the part of the learner.

The goal of strategy use is to "affect the learner's motivational or affective state, or the way in which the learner selects, acquires, organises, or interacts new knowledge" (Weinstein & Mayer 1986:315). They are different from teaching strategies (the techniques used by teachers to enable students to learn) in that it is the learner, not the teacher, who exercises control over the operations of the designated activity (O'Malley et al. 1985a). The classification framework of learning strategies emerged from efforts for identifying the characteristics of the "good language learner" (Naiman et al. 1978; Rubin 1975). And different researchers have classified their lists of behaviors according to various criteria, such as whether they contribute directly or indirectly to learning (Rubin 1981); whether they are cognitive or metacognitive (O'Malley et al. 1985b) and whether they are practised in the classroom, in individual study or during interaction with others (Politzer 1983, Politzer and McGroarty 1985). Rubin (1981), for example, proposed a classification scheme that subsumes learning strategies under two primary groupings and a number of subgroups. Rubin's first primary category, consisting of strategies that directly affect learning, includes clarification/verification, monitoring, memorisation, guessing, inductive reasoning, deductive reasoning and practising. The second primary category, consisting of strategies that contribute indirectly to learning, includes creating practice opportunities and using production tricks such as communication strategies.

Naiman et al. (1978) conducted interviews with adults in a major classroom study of learners of French as a second language and suggested that language learning strategies form only one part of a broader picture of what constitutes a 'good language learner', i.e. what that learner does and what kind of environment facilitates this learning process. They argue for further research:

'to study critically the different inventories of learning strategies and techniques and to develop an exhaustive list, clearly related to a language learning model' (Naiman et al. 1978:220)

This area of research interest was addressed by O'Malley et al. (1985a) and O'Malley and Chamot (1990). Their research firstly involved conducting interviews with seventy high-school age students enrolled in ESL classes, who were all native speakers of Spanish to determine if the strategies identified can be classified within existing learning frameworks. Their subjects had completed various psychological tasks and secondly, the theoretical analysis of reading comprehension and problem-solving tasks. From this data they established that three types of strategies were being used: metacognitive, cognitive and social/affective. Within the metacognitive category were those strategies which involve "knowing about learning and controlling learning through planning, monitoring and evaluating the learning activity" (O'Malley et al., 1989:422). Cognitive strategies are more directly related to individual learning tasks than metacognitive strategies and involve the manipulation or transformation of the material to be learned. And a third broad group of learning strategies was referred to as that of social/affective strategies by O'Malley et al. (1985a). According to Fleming and Walls (1998), social/affective strategies mainly involve the learner in communicative interaction with another person; for example, when collaboration with peers in problem-solving exercises.

Jones (1998) believes that Oxford has developed a system of language learning strategies which is more comprehensive and detailed than earlier classification models. Oxford (1990) divides strategies into two major classes: direct and indirect. Direct strategies, which "involve direct learning and use of the subject matter, in this case a new language" are subdivided into three groups: memory strategies, cognitive strategies and compensation strategies; Indirect strategies, which "contribute indirectly but powerfully to learning" (Oxford 1990:11-12) are also subdivided into three groups: metacognitive strategies, affective strategies and social strategies. According to Oxford (1990), memory strategies, such as creating mental linkages and employing actions, aid in entering information into long-term memory and retrieving information when needed for communication. Cognitive strategies, such as analysing and reasoning, are used for forming and revising internal mental modes and receiving and producing messages in the target language. Compensation strategies, such as guessing unknown words while listening

and reading or using circumlocution in speaking and writing, are needed to overcome any gaps in knowledge of the language. Metacognitive strategies help learners exercise executive control through planning, arranging, focusing, and evaluation their own learning process.

Affective strategies enable learners to control feelings, motivations, and attitudes related to language learning. Social strategies, such as asking questions and cooperation with others, facilitate interaction with others, often in a discourse situation. Logically, individuals will apply different strategies depending on their personality, cognitive style, and the task at hand. But although cultural and ethnic background, personality, sex, language learning purpose, and other factors influence the degree to which and the way in which learners use specific strategies, all these types of strategies are important to good language learning (Oxford & Crookall 1989). Thus, it is suggested that an understanding and awareness of learner strategies on the part of both teacher and students may provide valuable insights into the process of language learning. This, in turn, may enable individual learners to adopt or further develop a range of effective personal language learning strategies, and encourage teachers to incorporate their active use in class. Finally as Oxford(1990:1) put it, "strategies are especially important for language learning because they are tools for active, self-directed involvement, which is essential for developing communicative competence." Keeping in mind the research on language learning strategies, let us turn to factors affecting the choice of language learning strategies.

2.3. Factors affecting the choice of learning strategies
2.3.1. Sex

According to several studies, the sex of the students makes a significant difference in learning a second or foreign language, according to several studies (Politzer 1983, Oxford et al. 1988, Ehrman and Oxford 1989, Oxford and Nyikos 1989, Oxford et al. 1993, Oxford and Ehrman 1995, Lee 1994, Kim 1995, Oh 1996). All studies, which examined sex as a variable in the use of language learning strategies reported that significant sex differences almost always occurred in a single direction, showing greater use of language learning

strategies by females. Politzer (1983) reported that females used social learning strategies significantly more than males. His only comment about sex differences was, "Variance due to sex of learners seems relatively minor, but does exist with regard to such variables as social interaction" (p.62). Ehrman and Oxford (1989), using the Strategy Inventory for Language Learning (SILL) with both students and instructors at the U.S. Foreign Service Institute came to the conclusion that compared with males, females reported significantly greater use of language learning strategies in four areas: general study strategies, functional practice strategies, strategies for searching for and communication meaning, and self-management strategies.

Oxford and Nyikos (1989) found similar results in a study of 1,200 university students; female learners used formal rule-related practice strategies, general study strategies and conversational input elicitation strategies more frequently than did male learners. But unfortunately, as they indicated, too many other potentially interesting gender differences either have not been explored or have not been reported. These three studies (Politzer 1983, Ehrman and Oxford 1989, Oxford and Nyikos 1989) found a wide range of sex differences in strategy use, especially frequency and variety of strategy use was significantly greater for women. Oxford et al. (1993) also found girls showed a number of differences from boys in terms of motivation, achievement, and frequency of strategy use on their study of factors affecting Japanese language achievement for high school students who were enrolled in the Japanese Satellite Program (JSP) in the USA.

However, Kim (1995) investigated the use of language learning strategies of Korean adult ESL learners and found no significant differences between males and females in the use of strategies. The finding did not support the assumption that sex differences will affect the choice of strategies. In addition, Oh (1996), who conducted a study involving 60 EFL students from the National Fisheries Universities in Korea, found that sex difference did not affect the use of strategy and suggested that in the Korean context, college students' attitude influenced strategy use more strongly than did sex. On the contrary, Lee (1994) investigated the factors that affect the use of language learning strategies of Korean middle, high, and college students, and reported that girls showed more frequent use of strategies

than boys in middle school, but not in high school and college. Because Lee's study was the only one investigating the strategy use of Korean secondary school students, the present study was conducted to add to the research into language learning strategies at the secondary school level. To date, little research has been conducted into the language learning strategies of Korean secondary school students as they relate to sex, school year, and proficiency. Sex differences in strategy use may be more important and more prevalent than previously found. If differences do exist, an understanding of them may help ESL or EFL teachers guide learners to take better control of their comprehension and learning processes.

In short, most of the prior research showed significant differences between males and females in the use of strategies, with women's overall dominance in frequency and range of the strategies. Oxford (1993) mentioned the factors undoubtedly influencing the choice of learning strategies: motivation, gender, cultural background, type of task, age and L2 stage, and learning style. But she proposed that another factor - L2 strategy training - can also have a powerful effect on the choice of strategies. She concluded that after strategy training, males and females showed roughly equivalent, though, different strategy strengths (Oxford et. al. 1988). Therefore, further strategy training research in a regular classroom situation in Korea also needs to be conducted to investigate the effectiveness of strategy instruction in EFL.

2.3.2. Language course level (year, proficiency)

According to several studies, language course level also influences how students learn foreign or second languages. Politzer (1983) found that course level influenced the learning strategy choice of foreign language learners, with higher-level students using more "positive," student-directed, communicative or functional strategies. Chamot et al. (1987) discovered that cognitive strategy use decreased and metacognitive (planning, organizing, and evaluating) strategy use increased as foreign language course level increased, but that social-affective strategy use remained low across all course levels. Bialystok (1981) and Oxford & Nyikos (1989) found differences in strategy use as students

advanced in foreign languages. Formal practice with rules and forms was less and less effective (and less used) as students advanced, but functional practice with communicative language showed no such limitations. Advancement in course level or years of study does not necessarily mean that students use better strategies in every instance. Cohen and Aphek (1981), in studying English speakers who were learning Hebrew, discovered that both good and bad learning strategies appeared across course levels. Nevertheless, most of the research does indeed show that, in general, the more advanced the language learner, the better the strategies used. Little research exists on the effect of course level on foreign language learning in Korean Secondary school situations. It might be hypothesized that more advanced students would use somewhat different learning strategies than beginners in the Korean Secondary schools, since it was indicated that students of different ages and different stages of L2 learning used different learning strategies often being employed by more advanced students (Chamot et al. 1987; O'Malley and Chamot 1990; Oxford 1992)

2.3.3. National origin

Numerous studies have shown that national origin or ethnicity has a strong influence on the kinds of strategies used by language learners. For instance, Asian students seem to prefer strategies involving rote memorisation and language rules (Politzer and McGroarty 1985; O'Malley and Chamot 1990) as opposed to more communicative strategies. Politzer(1983) also found that Hispanics and Asians differed strongly in the kinds of strategies they used for language learning; Hispanics chose more social, interactive strategies, while Asians opted for greater rote memorisation. Oxford (1992) summarised that rote memorisation was more prevalent among Asian ESL students than among their Hispanic counterparts. However, interestingly enough, Grainger (1997) exploring the relationship between strategy use and ethnicity for 133 learners of Japanese from various cultural backgrounds (including Australia, Korea, Thailand, Taiwan, Hong Kong, Germany, USA, and Malaysia) found that, contrary to expectations, the rote learning aspect was the least popular category among the students of Asian backgrounds. In addition, Reid (1987) found that some Asian students preferred strategies such as working independently and resisted social, cooperative learning, unlike students of other cultural backgrounds such as a

Hispanic background. Would Korean students prefer rote memorisation like other Asian students? Or would there be no differences in overall strategy use with other cultural backgrounds? Considering the prior research results, cultural background might be related to strategy choice.

3. Methodology Introduction

3.1. Subjects

The subjects were 325 Korean secondary school students who were learning English as a foreign language (EFL) in Pusan. The subjects had been studying English as a required subject. The 325 subjects - 163 boys and 162 girls - were enrolled in one girls' junior high school and one boys' junior high school respectively. Their ages ranged from fourteen or fifteen for first school year students to sixteen or seventeen for third school year students. For the exact numbers of students at each of the two school year levels, see Table 1.

Table1. Distribution of subjects by sex and school year level			
	Boys	Girls	
School year level	N	N	Total
First Year Level	82	80	162
Third year Level	81	92	163
Total	163	162	325

The two schools were chosen by the researcher because of their similarity ; they belonged to the same education district and the mean scores of both the boys' school and girls' school in this study on the achievement test administered by the Pusan Education Office or on the English Listening Test administered by the Korea Education Development Organisation were similar. Their English textbooks were also the same. Their English proficiency is near to upper level in comparison with other secondary school students in Pusan. One class consisted of forty-two or forty-three students and all students were members of eight classes in this survey. Although they had no obligation to fill out and hand in the questionnaire and the cloze test, almost all of them completed the survey forms and submitted them except about ten students who did not hand in the sheet of the cloze test.

After completing the cloze test, the students were divided into two different levels according to their scores on that test.

3.2. Instrumentation

The instruments used in the data collection were a Korean translation of the Strategy Inventory for Language Learning (SILL), version 7.0 (Oxford 1990) (appendix A,B) and a cloze test (appendix C,D). The SILL, a self-reporting questionnaire is for students of English as a second or foreign language by requiring students to answer 50-item questions on their language-strategy use on a five-point Likert scale ranging from "never or almost never true" to "always, or almost always true." Oxford (1990) developed this Strategy Inventory for Language Learning (SILL, ESL/EFL Student Version), which contains six categories:

memory strategies for storing and retrieving new information;

cognitive strategies for manipulating and transforming learning materials;

compensation strategies for overcoming deficiencies of knowledge in language;

metacognitive strategies for directing the learning process;

affective strategies for regulating emotions; and finally,

social strategies for increasing learning experience with other people.
Oh (1992) translated the SILL into Korean and the reliability and the validity of the SILL translation in his study were reportedly high.

In order to determine students' proficiency in prepositions, a cloze test was developed by the researcher. Different passages were used for the different levels of students. The passages for the cloze test were not taken straight from their textbooks, but from other passages, which, it was expected the students might not have seen previously. Prepositions in the passage were eliminated and 15 bracketed items (for the first year students) and 20 items (for the third school year students) made up the cloze test. Considering the duration of learning English and the level of textbook of first year students, it was supposed that

they had fewer items of vocabulary than the third year level students. Thus, they had a smaller number of blanks to complete in a less complicated story. It was indicated that only one word should be filled out for each blank. The score of the cloze test was used for classifying the students as either low level or high level in English grammar specifically in prepositions.

3.3. Procedure

The data was collected by the researcher during a week in March 2000. After contacting the English teachers of the subjects in person to get approval for asking their students to participate in the study, the researcher pre-arranged the time. The English teachers and the researcher went to each English class to administer the SILL and the cloze test. Subjects were told that the questionnaire to be distributed contained questions about their use of English learning strategies. Then the sheet of the SILL and directions were given and the subjects were told that they should ask for any clarification they might need and any other extra time as they filled out the questionnaire. They were assured that neither their teacher nor any other person, other than the researcher, would have access to their responses and their names would not be used in reporting the results. Most of them had no difficulty in understanding the questionnaire. However, items such as "remember a new English word by making a mental picture of a situation," "use rhymes to remember a new English words" caused difficulty to some subjects. All students answered the questionnaire in their own classrooms, with the researcher remaining in the classrooms until all students had finished answering all the questions. The questionnaire administration took approximately 30 minutes for each class.

Later, during the next class, the subjects completed the cloze test. The cloze test also took about 30 minutes. When grading the cloze test, one of a range of correct answers was acceptable. If the word that the subjects had filled out was acceptable, appropriate, or understandable for the blank, it was considered the right answer. For example, both "till" and "until" were possible. There was no perfect score in both school years. The mean score of first year students was 63.1 and of third year students 48.3. These mean scores were the

cut-off point between high and low proficiency students in each year. For the exact numbers of high/low and first / third year, see Table 2.

Table 2. Subject Distribution by proficiency and school year			
	High	Low	
School year level	N	N	Total
First Year Level	90	72	162
Third year Level	85	78	163
Total	175	150	325

The statistical procedures to answer the research questions were as follows; Descriptive statistics such as means, standard deviations were obtained through the SPSS statistical package for the SILL results. The SPSS general linear model was used to conduct an analysis of variances with sex, school year, and proficiency in prepositions as independent variables and the SILL scores as the dependent variables to see whether there was an effect of sex, school year and proficiency on the use of specific learning strategies respectively. Most results were considered statistically significant at $p < .05$, or $p < .01$ level. This means that a result was considered statistically significant if it could have occurred by chance less than 5 times out of 100, or less than one time in 100.

4. Results

4.1. The result of the cloze test

Table 3. Mean Scores in the cloze test for Proficiency in Prepositions			
Description	Sex	Mean	SD
1st Year School	Boys	62.0	21.6
	Girls	64.2	25.5
3rd Year School	Boys	46.7	28.5
	Girls	49.8	22.3

As shown in Table 2, girls got a slightly higher score than boys in both school years. This result was in accordance with the pattern that Secondary school students in Pusan showed on a general English proficiency test designed by Korean English teachers, and which included grammar (syntax, use of function words, and inflected forms of verbs adjectives and nouns) and reading passages with comprehension questions as usual. The pattern of this study fits the popular idea which is that girls were superior to boys, and that the score of first year students is almost always higher than the score of third year students. The scores of boys at the third year level showed the greatest deviation

4.2. Learning strategy frequencies

The mean scores of the six categories of learning strategies used by Korean Secondary school students of EFL are reported in Table 2, where it can be seen that all means fell between 2.5 and 3.4 on a scale of 1 to 5 out a possible 5, a range which Oxford (1990) defined as medium use. Thus, the subjects in this study used strategies at a medium level rather than a high level.

Table 4. Mean Scores and Standard Deviations of the SILL		
Desriptions	Mean	SD
Memory Strategies	2.74	.58
Cognitive Strategies	2.90	.65
Compensation Strategies	3.14	.49
Metacognitive Strategies	2.74	.57
Affective Strategies	2.43	.46
Social Strategies	2.94	.64

As seen in Table 4, compensation strategies, which include guessing and using gestures, were used the most frequently (M = 3.14), followed by social (M = 2.94), cognitive (M = 2.90), memory, metacognitive (M = 2.74) and affective strategies (M = 2.43). The preference of compensation strategies may be explained by the need to cope with various communicational, interactional situations in their English class and suggests that the

Korean secondary school students employed compensation strategies to make up for missing knowledge. And they learned with others moderately often. Table 4 also showed that affective strategies were the least frequently used.

4. 3. Correlation of strategies with each other

Table 5. Correlation Analysis among the SILL Categories

Category	Memory	Cognitive	Compensation
Memory	1		
Cognitive	0.76**	1	
Compensation	0.51**	0.57**	1
Metacognitive	0.76**	0.82**	0.51**
Affective	0.45**	0.46**	0.34**
Social	0.76**	0.74**	0.61**

(** $p < .01$, denotes significance at 1% level)

The relationship between how the six categories of language learning strategies are related to each other is shown in Table 5. The six categories were related to each other in a moderate to a strong fashion. The Table 5 shows that the strongest significant relationship was between metacognitive and cognitive strategies (r = .82). Next, memory strategies were more strongly related to cognitive strategies (r = .76) and metacognitive strategies (r = .76) than compensation (r= .51) and affective strategies (r= .45). This result could indicate that the more memory strategies the students used, the more cognitive and metacognitive strategies they used and the less affective strategies they reportedly used. The weakest relationship was between affective and compensation strategies (r = .34). Table 5 also showed that cognitive strategies had the strongest correlation with other strategies, of metacognitive (0.82), memory (0.76), social (0.74) and compensation strategies (0.57). This means that the students who use cognitive strategies were often inclined to use other strategies often, too. These results suggested that how the subjects of this study behaved in their learning process.

Table 6. Mean scores of SILL categories by school year level					
Description	First School Year (n = 162)		Third School Year (n =163)		P
	Mean	SD	Mean	SD	
Memory	2.73	.63	2.75	.53	0.000
Cognitive	2.92	.69	2.87	.62	0.000
Compensation	3.07	.46	3.21	.52	0.000
Metacognitive	2.78	.62	2.71	.52	0.000
Affective	2.44	.52	2.42	.39	0.000
Social	2.97	.68	2.93	.60	0.000

Table 6 shows the differences between the mean scores of first and third year students. There was no evidence that a certain school year showed higher strategy use in all six categories. Third year students had higher mean scores than first year students in two of the strategy groups, compensation (3.21 and 3.07), and memory (2.75 and 2.73) respectively. In contrast, the mean score of first year students was higher in the other four strategy groups, metacognitive (2.78, 2.71), cognitive (2.92, 2.87), affective (2.44, 2.42) and social (2.97, 2.93) strategies respectively.

More precisely, the third year students use compensation, and memory strategies more often than their first year counterparts, on the other hand, the first year students use the other four strategies, metacognitive, cognitive, affective and social strategies more often than the third year students. The individual SILL items of compensation strategies that the third year students reported using more frequently were 'to understand unfamiliar English words, I make guesses', 'I make up new words if I do not know the right ones in English' and 'If I can't think of an English word, I use a word or phrase that means the same thing'. Not unexpectedly, the first year students used social strategies more often than the third year students. Compared with the third year students whose school records determine the entrance into a high school, the first year students are further away from the entrance exam.

Thus they might have more time to talk to others about their learning.

4.4. Relationship of strategy use to sex

Table 7. Mean scores of SILL categories by sex

Description	Boys (n = 163)		Girls (n =162)		P
	Mean	SD	Mean	SD	
Memory	2.62	.60	2.85	.54	0.000
Cognitive	2.81	.70	2.98	.60	0.000
Compensation	3.10	.55	3.18	.42	0.002
Metacognitive	2.66	.62	2.83	.51	0.000
Affective	2.39	.49	2.47	.42	.054
Social	2.87	.69	3.01	.58	0.000

Table 7, in all the categories of strategies, girls showed higher frequency of reporting use than boys. Girls' means were slightly higher than boys' means at a significance level $p < .05$ for five strategy groups: compensation ($p < .002$), memory, metacognitive, cognitive and social strategies ($p < .000$). Only for the use of affective strategies was the difference not of statistical significance ($p < .054$).

4.5. Relationship of strategy use to sex and school year

Table 8. Mean scores of the SILL categories by sex and school year

Description	Boys (n = 82)		Girls (n =80)		P	Boys (n=81)		Girls (n =80)		P
	Mean	SD	Mean	SD		Mean	SD	Mean	SD	
Memory	2.59	.68	2.87	.55	.002	2.65	.51	2.84	.52	.000
Cognitive	2.84	.77	3.00	.59	.000	2.78	.62	2.96	.61	.000
Compensation	3.05	.53	3.10	.38	.002	3.15	.57	3.27	.46	.016
Metacognitive	2.66	.69	2.89	.52	.000	2.66	.54	2.76	.50	.000

| Affective | 2.37 | .57 | 2.50 | .47 | .146 | 2.40 | .40 | 2.44 | .37 | .171 |
| Social | 2.84 | .74 | 3.07 | .59 | .004 | 2.91 | .63 | 2.96 | .57 | .000 |

According to Table 8, in both school years, the mean scores of girls were higher than the scores of boys in five of the SILL categories at a significance level p < .05, although in the affective category the difference was not significant (p < .146, p < .171). In short, girls used all six strategies categories more often than boys, and the three most preferred strategies of boys and girls in both school years were compensation, social and cognitive strategies.

Table 8 also shows that the reported strategy use by girls varied by school year. Although perhaps not at a level of significance, first year girls showed higher use than third year girls of all strategy categories, with the exception of compensation strategies. On the contrary, first year boys reported a higher use of strategy than third yea0r boys only in the cognitive strategy category

Table 9 Mean scores of the SILL categories related to proficiency in use of prepositions

Description	High proficiency in use of prepositions (n=175)		Low proficiency in use of prepositions(n=150)		P
	Mean	SD	Mean	SD	
Memory Strategies	2.91	.57	2.54	.54	.005
Cognitive Strategies	3.20	.59	2.55	.55	.023
Compensation Strategies	3.28	.44	2.98	.49	.200
Metacognitive Strategies	3.00	.52	2.46	.49	.001
Affective Strategies	2.49	.47	2.36	.44	.040
Social Strategies	3.15	.62	2.72	.58	.000

To investigate whether or not, good language learners of this group used strategies more frequently than less proficient learners, the researcher divided the subjects into two levels of EFL proficiency in prepositions as determined by the scores of cloze test. The cloze test was to measure proficiency in grammar, specifically in prepositions, thus the term

proficiency in the following refers specifically to proficiency in the use of prepositions. Table 9 shows the differences in the mean scores of strategies achieved by subjects of high and low level in proficiency. For all categories except compensation and affective, the scores of high level subjects were significantly higher than those of low level subjects.

More precisely, students who got high scores on the cloze test used cognitive and metacognitive strategies much more frequently than did the low scoring students. Another finding revealed on Table 9 was that the relationship between learning strategies and the proficiency was linear. That is, the higher the students' proficiency, the more they reported using all six categories of learning strategies.

Table 10. Mean scores of the SILL categories by school year and proficiency in prepositions

Description	First School Year (n=162)					Third School Year (n=163)				
	High Level (n=90)		Low Level (n=72)		P	High Level (n=85)		Low Level (n=78)		P
	Mean	SD	Mean	SD		Mean	SD	Mean	SD	
Memory	3.17	.39	2.94	.50	.074	3.42	.48	2.99	.47	.021
Memory	2.87	.63	2.54	.59	.010	2.95	.48	2.53	.50	.011
Metacognitive	2.97	.58	2.53	.58	.002	2.95	.47	2.45	.44	.000
Cognitive	3.15	.65	2.62	.62	.011	3.21	.51	2.50	.51	.002
Affective	2.48	.49	2.37	.56	.037	2.49	.43	2.35	.31	2.89
Social	3.12	.64	2.74	.67	.005	3.15	.60	2.70	.51	.001

Table 10 shows that in both first and third school years, high proficiency level students had significantly higher mean scores for most of the six strategies categories than low level students. Only, the use of compensation strategies (p < .074) in first year and affective strategies (p < .289) in third year did not approach a significant level. In each school year, high proficiency level students showed a more frequent strategy use than low proficiency level students. The results shown on Table 10 are consistent with the results of some prior studies (Politzer, 1983; Ramirez, 1986; Chamot, 1987; Oxford and Nyikos, 1989; Kim,

1992; Park, 1997) which found that high proficiency groups used significantly greater strategies than low groups.

Table 11. Correlation Analysis among Strategies, School year and Proficiency			
Description	All students (n=325)	First school year (n=162)	Third school year (n=163)
Memory	.41**	.38**	.51**
Cognitive	.56**	.50**	.66**
Compensation	.37**	.38**	.49**
Metacognitive	.54**	.49**	.63**
Affective	.23**	.23**	.25**
Social	.44**	.41**	.51**
(* p < .05, ** p < .01)			

Pearson product moment correlations were used to find the correlations among strategy use, school year and proficiency in prepositions. As shown in Table 11, cognitive (r= .56, p < .01) and metacognitive (r=. 54, p < .01) had a greater relation to proficiency for all subjects, followed by social strategies (r= .44, p < .01). There was no negative correlation between strategy use and proficiency. Another finding seen in Table 11 was that the relationship between the use of all strategies of third year and proficiency was much stronger than the relationship between that of first year and proficiency.

Table 12. Correlation Analysis among Strategies, Sex, School year and Proficiency

Description	All students (n=325)		First Year (n=162)		Third Year (n=163)	
	Boys (N=163)	Girls (n=162)	Boys (n=82)	Girls (n=80)	Boys (n=81)	Girls (n=82)
Memory	.37**	.46**	.37**	.41**	.48**	.55**
Cognitive	.54**	.58**	.41**	.60**	.73**	.58**
Compensation	.46**	.26**	.37**	.41**	.61**	.28**
Metacognitive	.53**	.56**	.43**	.58**	.72**	.51**

Affective	.29**	.15**	.33**	.13**	.34**	.13
Social	.40**	.49**	.33**	.51**	.55**	.47**

(* p < .05, ** p < .01)

The relation between cognitive strategies and proficiency was the highest both in boys (r= .54, p < .01) and girls (r= .58, p < .01) as seen in Table 12. This result matched with Lee (1999) in that cognitive strategies were the most closely related to Korean secondary school boys' proficiency, but different from his result that social strategies were the most closely related factor to Korean secondary school girls' proficiency. In case of first year boys, metacognitive strategy (r=. 43, p < .01) was the most significant factor to proficiency followed by cognitive, compensation and memory strategies. However, for the first year girls, cognitive strategy (r= .60 p < .01) was the one that had the strongest relation to proficiency followed by metacognitive and social strategies. Table 12 also shows that girls' memory strategies were more highly related to proficiency than boys' in both school years. Besides, contrary to expectations, social strategies of third year boys had a closer relation to proficiency than those of their counterparts. This kind of result could have implications for English teaching in Korea and help English teachers with some background knowledge of their students.

5. Discussion

5.1.   Strategy   frequencies
Table 4 revealed that the subjects of this study reportedly used all strategy categories. The frequencies of use revealed in the current study appeared to be slightly lower than those found amongst a small sample of Foreign Service Institute (FSI) learners, teachers, and supervisors (Ehrman and Oxford, 1989). However, two factors need to be considered. First, their subjects were relatively experienced language learners who already knew a great deal about how to learn. Secondly, they were in intensive training which was more like a second language learning environment than was the usual foreign language classroom, this comparatively greater level of strategy use might be explainable.

In this study, the Korean secondary school students reported using compensation strategies with the greatest frequency, as indicated by the mean score (M =3.14 on the 1-5 scale). The next most frequently employed category of strategies was social strategies (M = 2.94), contradicting the common belief that Asian students generally resist using participation in social interaction as a means to learn their second or foreign language. These results did not match those of Politzer and McGroarty (1985) nor of O'Malley and Chamot (1990) discovered that students from Asian backgrounds prefer rote learning and language rules as opposed to more communicative strategies. In addition, Phillips (1991), using the SILL to measure strategy use, found that for of 141 university-level Asian ESL students, metacognitive (M=3.70) and social (M= 3.65) strategies were used more frequently than affective (M= 3.12) and mnemonic (M= 3.00) strategies. Some other studies also conflicted with this result. The study (Oxford et al. 1993) of American high school students in rural and suburban areas of USA who were learning Japanese as a foreign language showed that cognitive strategies were used the most frequently (Mean=3.02). Unlike the students of Asian background, Grainger (1997) found that the most preferred groups of strategies for English background students were social and metacognitive strategies.

However, the results reported on Table 4 can be shown to agree with findings from other studies of ESL or EFL situations, such as Kim's study (1995) which showed that compensation strategies were the most frequently used by Korean adults learning English as a second language. The Korean secondary school students in Lee's study (1994) and the students of Asian background in Grainger's study (1997) also preferred compensation (3.67) followed by social strategies (3.56).

5.2. School year level

Little research exists on the effect of school year level on learning English of Korean secondary school students, but in this study, it was hypothesized that the more advanced students would use somewhat different learning strategies than beginners. As shown in Table 6, first school year students reported using metacognitive, cognitive and social strategies significantly more often than third year students However, Table 6 shows that

third year students used compensation and memory strategies more frequently than first year students.

These findings do not agree with those of Chamot et. al. (1987) where metacognitive strategy use increased as foreign language course level increased. Oxford and Nyikos (1989) identified that years spent studying the foreign language had a very highly significant effect on two communicatively-oriented factors: functional practice strategies, and conversational input elicitation strategies. According to them, students studying the language for at least four or five years used strategies far more often than did less experienced language learners. However, in this study, the use of cognitive, metacognitive and social strategies did not increase by year level.

5.3. Sex

In the present study, girls scored significantly higher in terms of frequency of strategy use in five of the six strategies categories as was shown on Table 7. The results shown in Table 7 that girls showed higher frequency in social strategies than boys can be explained to a degree by the Maccoby and Jacklin's work (1974) on sex differences suggesting that females are superior to, or at least very different from, males in many social skills with females showing a greater social orientation. However, the result seen in Table 7 was different from Bardwick's work (1971) which showed greater use of cognitive strategies by males. Thus the result of this study did not match Bardwick's idea that males tended toward analytic, logical thinking, while females tended toward intuitive thinking.

In the Korean context, Lee (1994) found that Korean secondary school girls used all six categories of strategies more frequently than boys. In addition, Kim (1998) found that all the strategies except compensation strategies were used more often by girls than boys in Korean primary school. However, Kim (1995) found no significant differences in strategy use between males and females in the study of Korean adult ESL learners. One thing interesting was found in Lee's study (1994). He found that there were no sex differences in strategy use of Korean high school and college students, although there were differences for middle school as mentioned above. Besides, Oh (1996) insisted that there was no

relationship between sex and the choice of strategies in his study for fishery college students in Pusan. According to him, both male and female students were interested enough in English to take English as an optional subject. Therefore learning strategies were used frequently regardless of sex. This strong interest might diminish sex differences in the use of strategies.

Considering the results of Lee (1994), and the present study, it might be concluded that there are differences in strategy use between males and females at the middle school level, but that, as students advance in their level, less of a relationship can be observed between sex difference and strategy use. The results also suggest to teachers of English in Korean secondary schools, that if girls are naturally more skilled in using learning strategies to learn a new language, then boys might need more overt help in developing such strategies. To this end, Oxford et al. (1993) recommended that teachers include strategy instruction for all students as a regular part of language teaching and learning, so that both girls and boys can make the best of their learning power.

5.4. Proficiency in prepositions

An important issue was whether language learning strategy use was related to language proficiency. As anticipated, the results of this study showed significantly greater overall use of language learning strategies among high proficiency level students. Further, the relationship between the two variables was linear. This result seems to support the conclusion from a several recent studies in both foreign language (Chamot & Kupper, 1989) and ESL (Oxford & Nykos, 1989) learning, that frequency of strategy use and range increased as students became more successful or proficient learners. However, Phillips (1991) reported that students in the mid-proficiency group (TOEFL range: 481-506) used more language learning strategies than students in both high (TOEFL range: 507-600) and low (TOEFL range: 397-480) proficiency groups. She found no consistent differences between the strategy use of high-proficiency and low-proficiency students and thus, suggested that the relationship between proficiency and strategy use was curvilinear.

The finding of this study, in which a linear relationship was found between the two variables are perhaps more similar to those of Park (1997) whose high proficiency Korean

learners (TOEFL mean 474; TOEFL maximum 607) used more language learning strategies than both the mid-proficiency (TOEFL mean 453) and low proficiency group (TOEFL mean: 435; TOEFL minimum 350). Thus, these findings are in accordance with the result as seen earlier in Table 9. However, the comparison needs to be made reservedly, because the instrument to measure proficiency focussed only on prepositions and the subjects were divided into two levels.

Several empirical studies reported that as students' level of proficiency increased, they made greater use of certain categories of strategies (Park 1997; Park 1999). Park (1997) discovered that cognitive strategies had the strongest correlation with TOEFL score ($r = 33$, $p < .01$) followed by social strategies ($r = .30$, $p < .01$) and metacognitive strategies ($r = .28$, $p < .01$) in his study of Korean college students. Another, Park (1999) also found that the highest proficiency group used cognitive and metacognitive strategies more than the other lower groups in her study of 114 undergraduate students enrolled in an advanced reading course at KAIST University. Although the methods to measure proficiency and the subjects were different, the result that the strongest relationship existed between cognitive strategies and proficiency was the same. In this study, the statistically significant correlation was found between cognitive strategies and proficiency ($r = .56$, $p < .01$) (see Table 11).

5.5. Limitations of the study

Regardless of the findings of this study, however one should be cautious in making generalisations from these findings. This is because students' use of learning strategies was identified through a self-report questionnaire of the SILL at one point in time in one area, and because the instrument, used to measure students' proficiency in this study was not validated. Although the SILL has been tested with a variety of languages, to the knowledge of this author it has not been tested with a large group of Korean secondary school students. It may be inadequate in accurately reporting strategy use for this particular students, besides, there was no combination of methods to research and validate specific data gathered, so there is the need for a variety of data-gathering techniques, including qualitative and quantitative methods. Through structured and semistructured interviews,

results of the SILL can be confirmed and additional unidentified strategies revealed. The next thing is the instrument focussed on grammar, specifically in prepositions. It did not measure students' proficiency in speaking, listening, writing and so on. If different instruments to measure students' proficiency in other areas are used, their strategy use would be different. Thus, more research needs to be conducted with different subjects and data such as interviews and observation over time as well as at one point in time around the area.

6. Conclusion

This study explored the possible effects of school year, sex and proficiency in prepositions on the use of strategies in learning English of Korean Secondary school students. To this end, the relation between learning strategies and the cloze test developed by the researcher was investigated with 325 Secondary school students learning English in Pusan, Korea. Several important findings were made. The conclusions based on the major findings are as follows: The students consciously employed a variety of language learning strategies with moderate frequency. They chose compensation strategies as most frequently used, whereas, they possibly avoided, or were unaware of how to apply, affective strategies. This pattern of frequency in strategy use by Korean Secondary school students was similar to other cultural groups: more frequent use of compensation, cognitive and social strategies than affective and memory strategies. The most frequent use of compensation strategies probably reflects the efforts of learners to overcome the limitation or gaps they feel in speaking and writing through using both linguistic and non-linguistic cues.

The findings of this study supported the assumption that there is a relationship between sex difference and the choice of strategies. A significant difference was found between boys and girls in the use of strategies in this study. In overall strategy use, girls showed greater use of strategies than boys. In the specific categories of strategies, the girls used memory, metacognitive, cognitive and social strategies significantly more often than the boys. As expected, girls used more social strategies than boys.

The use of strategies varied with school year level. The third school year students used compensation, and memory strategies more often than the first school year students, whereas, the first school year students used the metacognitive, cognitive, and social strategies significantly more often than the third school year students.

Frequency of strategy use varied according to proficiency in the use of prepositions as measured by a cloze test. The high level proficiency students reported significantly greater strategy use than the low level proficiency students.

The reported use of cognitive strategies had the strongest relation to proficiency in prepositions tested by cloze test, followed by metacognitive and social strategies.

6.1. Pedagogical implications

The findings of this study have pedagogical implications for instruction and curriculum development. First, learners of English as a foreign language should learn to recognise the strategies they are using and be advised to select most appropriate techniques for the instructional environment. Successful language learners may serve as informants for students experiencing less success in language learning regarding strategies, techniques, and study skills. Through monitoring each other, students can take an active part in not only learning but also teaching.

Second, teachers should become more aware of the learner strategies and styles that their students are (and are not) using so that teachers can develop teaching styles and strategies that are compatible with their students' ways of learning.

Third, teachers can help students identify their current learning strategies by means of a variety of data collection methods; surveys, one-on-one and group interviews, diaries, think-aloud data or other means. Teachers need to know the advantages and disadvantages of each method.

Fourth, language curricula, materials and instructional approaches should incorporate diversified activities to accommodate the various characteristics of the learners found in

the foreign language classroom. In addition, use of appropriate learning strategies can enable students to take responsibility for their own learning by enhancing learner autonomy, independence and self-direction (Dickinson, 1987). These factors are important because learners need to keep on learning when they are no longer in a formal classroom setting (Oxford & Crookall 1989). Unlike most other characteristics of the learner, such as aptitude, motivation, personality, and general cognitive styles, learning strategies are teachable. Thus teachers can help their students learn quicker, easier, and more effective by weaving learning strategy training into regular classrooms.

6.2. Further research

Interpretations of the findings of this study also lead to several recommendations for further research. First, it is recommended that a replication of this study be done wherein (a) the subjects in this study are compared with other EFL populations such as in Secondary school level,

(b) the SILL is compared with other types of data collection tools, (e.g., diaries, interviews),

(b) proficiency in other language skills, (e.g., listening, speaking, reading, writing) be related to the use of strategy.

Second, a more detailed look at variables influencing language learning behaviors is needed. Affective factors such as motivation and aptitude might relate to the use of different strategies. To consider as many variables as possible will enable language teachers and researchers to draw a more accurate, and global picture of what is happening to an individual when he/she learns a foreign language.

Third, longitudinal research which identifies differences in the strategy use and changes over time is needed with various methods of learning strategy elicitation. Also, qualitative research studies will provide a thorough look at language learning behavior and examine related factors.

Regardless of these findings and implications of this study, however, one should be cautious in making genralisations from these findings. This is because students' use of learning strategies was identified only through the SILL questionnaire at one point in time in one city, and because the instrument to measure students' proficiency was focused on proficiency only in prepositions. Thus, more research needs to be conducted with different subjects and instruments over time as well as one point in time around the city or country.

In conclusion, it is evident that sex, school year and proficiency in prepositions were related to which strategies students chose and the frequency with which they used them. More research is needed in this area to establish how effective strategy use may be facilitated by both language teachers and language students.

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