

# **A Study of Language Learning Strategies Used by College EFL Learners in Taiwan**

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## **Abstract**

The study was designed to investigate the influence of gender and major on college EFL learning strategy use in Taiwan. A total of 1758 Taiwanese college EFL learners took part in this research study. The participants completed the two sets of self-reported questionnaires, including Background Characteristics and Strategy Inventory for Language Learning (SILL) (Oxford, 1989). The collected data were computed and analyzed via descriptive statistics, *t*-test, and one-way ANOVA. The findings of the study were generalized as follows: (1) There was not a great difference among the frequency of each strategy that Taiwanese college EFL learners report using, all in medium-use level. (2) Statistically significant differences were found in the use of cognitive strategies, metacognitive strategies, social strategies and overall strategies with regard to gender. (3) Statistically significant differences were found in the use of six subcategories of language learning strategies and overall strategies with regard to major. In the end of this study, the pedagogical implications were provided.

**Key Words: Language Learning Strategies, SILL.**

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## 1. Motivation and Introduction

Over the past few decades, researchers and language teachers started to consider that no single research finding or teaching method could guarantee absolute and predictable success in second or foreign language (L2/FL) teaching. Some learners seem to be successful in second or foreign language regardless of teaching methods or techniques. Therefore, a considerable number of researchers have shifted their focus from teaching methods or techniques to language learning strategy use. Research on language learning strategies began with the strategies of the “good language learner” by Rubin (1975) and Stern (1975). From these initial research efforts, numerous researchers have attempted to emphasize the importance of language learning strategy use by successful language learners (e.g., Abraham & Vann, 1987, 1990; Chamot & Kupper, 1989; Naiman, Frolich, Stern, and Todesco, 1978; O’Malley & Chamot, 1990; Oxford et al., 1989, 1993, 1995; Politzer & McGroarty, 1985; Ramsey, 1980; Reiss, 1983). They noted that, generally speaking, more successful learners employed language learning strategies more frequently and more appropriately than did less successful learners. The researchers believe that language learning strategy plays a significant role in L2/FL learning, due to the fact that language learning strategies that can help learners to facilitate the acquisition, storage, retrieval or use of information and increase self-confidence.

Learning English as a foreign language (EFL) is very popular in Taiwan. English is valuable in the fields of technology, science, education, business and international communication. Since Taiwan joined to World Trade Organization (WTO) in year 2002, English has become more important to, and needed by, Taiwanese people. In Taiwan, English was a required subject taught in junior and senior high school for six years. In addition, the Ministry of Education (MOE) in Taiwan (1998) decided to

include EFL in the national elementary education curriculum. Therefore, since September 2001, English has been taught as a required subject starting from grade 5. The subject of English has assured the EFL learning of a crucial role in Taiwanese elementary and secondary education curricula. However, in the most of colleges, English class generally involves only two to three hours per week for one or two years. Generally speaking, the majority of students are not able to achieve the standard level of English proficiency; they lack self-confidence in their English proficiency. Therefore, to improve student English proficiency, most of the colleges have adopted the policy requirement that their graduates must demonstrate English proficiency. Accordingly, how to assist college students' English learning has become an important issue. Therefore, the researchers hope that insights into Taiwanese college EFL learners' use of English learning strategies could provide information for researchers and educators that will furnish them with knowledge about how to enhance and assist the students in the use of language learning strategies.

## **2. Literature Review**

### **Definitions and Classifications of Language Learning Strategies**

“Strategy”, from the ancient Greek term *strategia*, refers to generalship or the art of war. In a more specific sense, strategy entails the optimal management of troops, ships or aircraft in a planned campaign. “Tactics” is different but related to strategies, which are tools to achieve the success of strategies. Moreover, the two expressions share some basic concepts: planning, competition, conscious manipulation and movement toward a goal. In nonmilitary settings, the concept of strategy has been applied to the non-adversarial situations, where it has come to mean a plan, step or an action is taken for achieving a specific objective (Oxford, 1990). Oxford (1990) stated

that strategies are particularly important for language learning “because they are tools for active, self-directed involvement, which is essential for developing communicative competence” (p.1). Because of its significance, learning strategies have been extensively employed in the educational field. In defining the language learning strategy, “different researchers use different terms and different concepts” (Oxford & Crookall, 1989, p.414); therefore, a great number of researchers have formulated their own definitions which will be discussed in the followings.

Schemek (1988) stated, strategy is “the implementation of a set of procedures (tactics) for accomplishing something” and learning strategy is “a sequence of procedures for accomplishing learning” (p.5). Weinstein and Mayer (1986) proposed learning strategies as “behaviors and thoughts that a learner engages in during learning and that are intended to influence the learner’s encoding process” (p.315). More specifically, Rigney (1978) defined learning strategies as “cognitive strategy” which is “used to signify operations and procedures that the student may use to acquire, retain, and retrieve different kinds of knowledge and performance”(p.165).

Rubin (1975) defined strategies as “the techniques or devices, which a learner may use to acquire knowledge” (p.43). Later, Rubin (1981) conducted a study to identify cognitive strategies in second language learning and introduced the distinction between direct and indirect language learning strategies. In 1987, Rubin proposed, “language learning strategies are strategies which contribute to the development of the language system which the learner constructs and affect learning directly” (p.23). She also suggested that language learning strategies include “any set of operations, steps, plans, routines used by the learner to facilitate the obtaining, storage, retrieval and use of information” (p.19).

Bialystok (1978) defined language learning strategies as “optional means for exploiting available information to improve competence in a second language” (p.71).

Meanwhile, he identified four kinds of language learning strategies: (a) formal practicing; (b) functional practicing; (c) monitoring; and (d) inferencing.

According to O'Malley et al. (1985), "language learning strategies have been broadly defined as any set of operations or steps used by a learner that will facilitate the acquisition, storage, retrieval, or use of information" (p.23). In this study, they classified twenty-six strategies into three subgroups: metacognitive, cognitive and socio-affective. Similarly, Chamot (1987) gave a definition of language learning strategies as "techniques, approaches or deliberate actions that students take in order to facilitate the learning and recall of both linguistic and content area information" (p.71). She proposed that some language learning strategies are observable, but some may not be observable. In cognitive perspective, O'Malley and Chamot (1990) viewed language learning strategies as "the special thoughts or behaviors of processing information that individuals use to help them comprehend, learn, or retain new information" (p.1). Nisbet (1986) offered another definition of language learning strategies as "always purposeful and goal-oriented, but perhaps not always carried out at a conscious or deliberate level. They can be lengthy or so rapid in execution that it is impossible for the learner to recapture, recall or even be aware that one has used a strategy" (p.25). Oxford and Crookall (1989) defined language learning strategies as "steps taken by the learner to aid the acquisition, storage, and retrieval of information" (p.404). They noted that strategies may be used consciously but they can also become habitual and automatic with practice. Similarly, Oxford (1990) claimed "learning strategies are steps taken by students to enhance their own learning" (p.1). She proposed a more specific definition of learning strategies 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" (p.8).

MacIntyre (1994) argued that the term strategy implied active planning in pursuit

of some goal, which was not something that would automatically occur. He emphasized the learners' deliberate action of language learning strategies. He provided a different perspective of defining language learning strategies as "the actions chosen by language students that are intended to facilitate language acquisition and communication" (p.190). The definition focuses more on learners' intention and choice of using language learning strategies.

In Oxford's (1990) study, she synthesized prior study results and came up with a language learning strategy system (See Table 1). Six categories, including memory strategies, cognitive strategies, compensation strategies, metacognitive strategies, affective strategies, and social strategies, were divided into two major types, direct and indirect.

*Table 1 Oxford's Language Learning Strategy System (Oxford, 1990, p.17)*

Type	Primary strategies	Secondary strategies
Direct strategies	1. Memory strategies	A. Creating mental linkages
		B. Applying images and sounds
		C. Reviewing well
		D. Employing action
	2. Cognitive strategies	A. Practicing
		B. Receiving and sending messages
		C. Analyzing and reasoning
		D. Creating structure for input and output

	3. Compensation strategies	A. Guessing intelligently
		B. Overcoming limitations in speaking and writing
Indirect strategies	1. Metacognitive strategies	A. Centering your learning
		B. Arranging and planning your learning
		C. Evaluating your learning
	2. Affective strategies	A. Lowering your anxiety
		B. Encouraging yourself
		C. Taking your emotional temperature
	3. Social strategies	A. Asking questions
		B. Cooperating with others
		C. Empathizing with others

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### 3. Methodology

#### Research Questions

This study aimed to investigate language learning strategies used by college students in Taiwanese EFL context, and set out to seek answers to the following research questions:

1. What kinds of language learning strategies do Taiwanese college EFL learners report using?
2. Does learner gender influence Taiwanese college EFL learners' use of language learning strategies?

3. Does Taiwanese college EFL learners' use of language learning strategies differ relative to learner major?

### **Population and Sample**

The targeted population of this research was freshmen, sophomores, juniors, and seniors at colleges in Taiwan. The researchers divided the distribution area into three regions: Northern Taiwan, Central Taiwan, and Southern Taiwan. Cluster and random selection were used in the sampling process of this research study. In each region, two colleges were randomly selected so altogether six schools were involved in this study. Eight classes of students were randomly chosen in each school as the samples for this study. In addition, the researchers grouped the subjects according to their majors: humanities and social science, business and management, science and engineering, and others. As a result, a total of 1993 students at Taiwanese colleges were invited to participate in this survey research. Of the 1993 returned questionnaires, 235 questionnaires were discarded as invalid, those either incomplete or did not follow the answering instruction. Therefore, a total of 1758 subject responses (88.2% of 1993 participants) were used for the statistical analysis. In addition, based on the ethical consideration, the names of the school and the participants' personal data were kept anonymous in the current study.

### **Instrumentation**

The instruments of this study involved two sets of questionnaires: (a) Background Characteristics, (b) Strategy Inventory for Language Learning (SILL).

### **Background Characteristics**

In order to understand the background and demographic information of subjects, the current researchers designed two questions to gather the data regarding the gender,

and major.

### **The Strategy Inventory for Language Learning (SILL)**

The Strategy Inventory for language Learning (SILL) (Oxford, 1990) was first designed as an instrument for assessing the frequency of use of language learning strategies by students at the Defense language Institute in Monterey, California. Two revised versions of the SILL exist, one for foreign language learners whose native language is English (80 items) and the other for learners of English as a second or foreign language (ESL/EFL, 50 items). It is estimated that 40 to 50 major studies, including a dozen dissertations and theses, have been done using the SILL. These studies have involved an estimated 8000 to 8500 language learners. Within the last 10 to 15 years, the SILL appears to be the only one language learning strategy instrument that has been extensively checked for reliability and validated in multiple ways (Oxford & Burry-Stock, 1995, p.4). In this current study, the ESL/EFL 50 items version 7.0 of SILL was employed as an instrument to investigate EFL learners' use of language learning strategies.

The version 7.0 of SILL contains of 50 items, and characterized into six subscales: (a) memory strategies (items 1 to 9), (b) cognitive strategies (items 10 to 23), (c) compensation strategies (items 24 to 29), (d) metacognitive strategies (items 30 to 38), (e) affective strategies (items 39 to 44), (f) social strategies (items 45 to 50). These SILL 50 items are evaluated on a five-point Likert scale ranging from 1 to 5. The number indicates how often the learner uses the strategies.

Never or almost never true of me =1

Generally not true of me =2

Somewhat true of me =3

Generally true of me =4

Always or almost always true of me =5

In general, the ESL/EFL SILL reliabilities have been high. Cronbach Alphas have been .94 using the Chinese translation with a sample of 590 Taiwanese university EFL learners (Yang, 1992). Additionally, in studies worldwide, the SILL's reliability using Cronbach's alpha is ordinarily in the range of the .90s (Oxford & Ehrman, 1995, p.370).

### **Data Analysis**

The Statistical Package for the Social Science (SPSS) for Microsoft Windows 10.0 was used to complete the analysis of the collected data. Descriptive statistics, including frequencies, means, standard deviations and percentages, were implemented in order to investigate the demographic data, and the use of language learning strategies. *t*-test, one-way analysis of variance (ANOVA) and the Scheffe post-hoc test were used to determine whether any significant relationships exist among respondents in the use of language learning strategies regarding their background characteristics. In addition, the .05 level of statistical significance was set at all statistical tests in the present study.

## **4. Results of Data Analysis**

### **Question One**

*What kinds of language learning strategies do Taiwanese college EFL learners report using?*

Descriptive statistics was employed to investigate the language learning strategies that Taiwanese college EFL learners report using. Table 2 illustrates that the mean of frequency of overall strategy use was 2.89, which was approximately at a medium

degree (with a range from 1 to 5). According to the results of Table 2, the most frequently used strategy was compensation strategies ( $M=2.98$ ) and followed by memory strategies ( $M=2.93$ ), metacognitive strategies ( $M=2.91$ ), social strategies ( $M=2.90$ ), cognitive strategies ( $M=2.84$ ) and affective strategies ( $M=2.80$ ). There was not a big difference among the frequency of each strategy that Taiwanese college EFL learners report using.

**Table 2** Summary of Descriptive Statistics for Language Learning Strategy Use

Strategies	$M$	SD	$m \leq 3$		$m > 3$	
			Frequency	Percentage	Frequency	Percentage
Memory	2.93 (2)	.588	1021	58.1%	737	49.1%
Cognitive	2.84 (5)	.688	1115	63.4%	643	36.6%
Compensation	2.97 (1)	.691	977	55.6%	781	44.4%
Metacognitive	2.91 (3)	.716	997	56.7%	761	43.3%
Affective	2.80 (6)	.691	1166	66.3%	592	33.7%
Social	2.90 (4)	.803	1044	59.4%	714	40.6%
Overall Strategy Use	2.89	.576	1041	59.2%	717	40.8%

$N=1758$

## Question Two

*Does learner gender influence Taiwanese college EFL learners' use of language learning strategies?*

T-test of equality of means was performed to examine the relationships between gender differences and the use of language learning strategies. The results of this t-test analysis are illustrated in Table 3. Based on this t-test analysis, significant differences

were found between male and female learners in overall strategy use ( $t=-2.50^*$ ,  $p<.05$ ). The mean of frequency of male learners in overall strategy use was 2.85, and the mean of frequency of female learners was 2.92; therefore, male learners presented less frequently in using overall strategy than did female learners. According to the results of six subcategories of language learning strategies respectively, significant differences did not exist in the use of memory strategies, compensation strategies, and affective strategies by gender ( $t = -2.09, -1.48, -1.80, p>.05$ ). However, significant differences existed in the use of cognitive strategies, metacognitive strategies, and social strategies ( $t = -2.64^*, -2.76^*, -4.30^*, p<.05$ ). The means of frequency of male learners in using cognitive strategies, metacognitive strategies, and social strategies were 2.79, 2.85, and 2.97; the means of frequency of female learners in using cognitive strategies, metacognitive strategies, and social strategies were 2.87, 2.95, and 2.97. Consequently, female learners reported using cognitive strategies, metacognitive strategies, and social strategies more often than did male learners.

**Table 3** *Summary of Variation in Language Learning Strategy Use by Gender*

Strategies	<i>n</i>		<i>M</i>		<i>SD</i>		<i>t</i>	<i>p</i>
	Male	Female	Male	Female	Male	Female		
Memory	761	997	2.93	2.93	.601	.578	-.21	.835
Cognitive	761	997	2.79	2.87	.683	.654	-2.64*	.008
Compensation	761	997	2.97	2.97	.715	.673	-.15	.882
Metacognitive	761	997	2.85	2.95	.746	.690	-2.76*	.006
Affective	761	997	2.77	2.83	.704	.679	-1.79	.073
Social	761	997	2.80	2.97	.812	.788	-4.30*	.001
Overall Strategy Use	761	997	2.85	2.92	.588	.566	-2.50*	.013

\* $p<.05$

### **Question Three**

*Does Taiwanese college EFL learners' use of language learning strategies differ relative to learner major?*

Descriptive statistics was computed to understand the current situations of language learning strategy use regarding major differences among EFL learners at colleges. As shown in Table 4, in the use of memory strategies, the mean of frequency of humanities and social science learners was 3.04, the mean of frequency of business and management learners was 2.88, and the mean of frequency of science and engineering learners was 2.91. In the use of cognitive strategies, the mean of frequency of humanities and social science learners was 3.11, the mean of frequency of business and management learners was 2.72, and the mean of frequency of science and engineering learners was 2.73. In the use of compensative strategies, the mean of frequency of humanities and social science learners was 3.17, the mean of frequency of business and management learners was 2.92, and the mean of frequency of science and engineering learners was 2.87. In the use of metacognitive strategies, the mean of frequency of humanities and social science learners was 3.11, the mean of frequency of business and management learners was 2.85, and the mean of frequency of science and engineering learners was 2.80. In the use of affective strategies, the mean of frequency of humanities and social science learners was 2.99, the mean of frequency of business and management learners was 2.75, and the mean of frequency of science and engineering learners was 2.71. In the use of social strategies, the mean of frequency of humanities and social science learners was 3.24, the mean of frequency of business and management learners was 2.80, and the mean of frequency of science and engineering learners was 2.72. In overall strategy use, the mean of frequency of humanities and social science learners was 3.11, the mean of frequency of business and management learners was 2.82, and the mean of frequency of science and

engineering learners was 2.79. According to the results of descriptive statistics analysis, the humanities and social science learners seemed to be more commonly in using overall strategy and six subcategories of language learning strategies than did other two majors.

**Table 4 Summary of Descriptive Statistic for Using Language Learning Strategies**

**Regarding Majors**

Strategies	Humanities & Social Science			Business & Management			Science & Engineering		
	<i>n</i>	<i>M</i>	<i>SD</i>	<i>n</i>	<i>M</i>	<i>SD</i>	<i>n</i>	<i>M</i>	<i>SD</i>
Memory	506	3.04	.574	620	2.87	.588	632	2.91	.588
Cognitive	506	3.11	.632	620	2.73	.644	632	2.73	.658
Compensation	506	3.17	.629	620	2.92	.661	632	2.87	.736
Metacognitive	506	3.11	.681	620	2.85	.687	632	2.80	.737
Affective	506	2.99	.654	620	2.75	.663	632	2.71	.716
Social	506	3.24	.729	620	2.80	.777	632	2.72	.801
Overall Strategy Use	506	3.11	.551	620	2.82	.539	632	2.79	.586

*N*=1758

One-way analysis of variance (ANOVA) was further run to investigate the relationships between major differences and the use of language learning strategies. If significant differences existed, Scheffe post hoc analysis was used to determine which major groups were significantly different in the use of language learning strategies. The results of one-way ANOVA and Scheffe post hoc analysis are presented in Tables 5, 6, 7, 8, 9, and 10. As the results of Table 5 show, there were significantly different

in the use of memory strategies with regard to major differences ( $F=11.77^*$ ,  $p<.05$ ). According to the results of Scheffe post hoc analysis, significant differences existed among the groups of “humanities and social science” and “business and management”, “humanities and social science” and “science and engineering” with respect to memory strategy use. As the mean scores reveal that the groups of humanities and social science used memory strategies most frequently among three different majors.

**Table 5 Summary of One-way ANOVA and Scheffe Post Hoc for Using Memory Strategies Regarding Majors**

Memory Strategies	<i>SS</i>	<i>df</i>	<i>MS</i>	<i>F</i>	<i>p</i>	Scheffe post-hoc
Between Groups	8.040	2	4.020	11.77*	.001	*1>2
Within Groups	599.446	1755	.342			*1>3
Total	607.485	1757				

\* $p<.05$

Note: 1- humanities and social science groups.

2- business and management groups.

3- science and engineering groups.

As show in Table 6, significant differences existed among different majors in the use of cognitive strategies ( $F=62.24^*$ ,  $p<.05$ ). As Scheffe post hoc analysis shows, significant differences were found in the use of cognitive strategies in respect of the groups of “humanities and social science” and “business and management”, “humanities and social science” and “science and engineering”. Resulting mean scores indicate that the groups of “humanities and social science” used cognitive

strategies more often than did the groups of “business and management”, and the groups of “science and engineering”.

**Table 6 Summary of One-way ANOVA and Scheffe Post Hoc for Using Cognitive Strategies Regarding Majors**

Cognitive Strategies	<i>SS</i>	<i>df</i>	<i>MS</i>	<i>F</i>	<i>p</i>	Scheffe post-hoc
Between Groups	51.961	2	25.980	62.24*	.001	*1>2
Within Groups	732.604	1755	.417			*1>3
Total	784.565	1757				

\* $p < .05$

Note: 1- humanities and social science groups.

2- business and management groups.

3- science and engineering groups.

Table 7 indicates that significant differences existed among different majors with respect to compensation strategies ( $F=29.34^*$ ,  $p < .05$ ). According to the results of Scheffe post hoc analysis, significant differences existed among the groups of “humanities and social science” and “business and management”, “humanities and social science” and “science and engineering” with respect to the use of compensation strategies. The mean scores reveal that the groups of “humanities and social science” were the most frequent users in using compensation strategies among three different majors.

**Table 7 Summary of One-way ANOVA and Scheffe Post Hoc for Using Compensation Strategies Regarding Majors**

Compensation Strategies	<i>SS</i>	<i>df</i>	<i>MS</i>	<i>F</i>	<i>p</i>	Scheffe post-hoc
Between Groups	27.182	2	13.591	29.34*	.001	*1>2
Within Groups	812.933	1755	.463			*1>3
Total	840.115	1757				

\* $p < .05$

Note: 1- humanities and social science groups.

2- business and management groups.

3- science and engineering groups.

According to the results of one-way ANOVA in Table 8, significant differences were found in the use of metacognitive strategies regarding major differences ( $F=31.42^*$ ,  $p < .05$ ). The results of Scheffe post hoc analysis indicate that significant differences existed among the groups of “humanities and social science” and “business and management”, “humanities and social science” and “science and engineering” in the use of metacognitive strategies. Consequently, resulting mean scores report that the groups of humanities and social science used metacognitive strategies most commonly among all three majors.

**Table 8 Summary of One-way ANOVA and Scheffe Post Hoc for Using Metacognitive Strategies Regarding Majors**

Metacognitive Strategies	SS	df	MS	F	p	Scheffe post-hoc
Between Groups	31.150	2	15.575	31.42*	.001	*1>2
Within Groups	869.873	1755	.496			*1>3
Total	901.023	1757				

\*p<.05

Note: 1- humanities and social science groups.

2- business and management groups.

3- science and engineering groups.

As the results of Table 9 show, there were significantly different among different majors with respect to the use of affective strategies ( $F=28.55^*$ ,  $p<.05$ ). Resulting Scheffe post hoc analysis indicate that significant differences existed among the groups of “humanities and social science” and “business and management”, “humanities and social science” and “science and engineering” in the use of affective strategies. According to the results of mean scores, the groups of “humanities and social science” used affective strategies more frequently than did the groups of “business and management”, and the groups of “science and engineering”.

**Table 9 Summary of One-way ANOVA and Scheffe Post Hoc for Using Affective Strategies Regarding Majors**

Affective Strategies	<i>SS</i>	<i>df</i>	<i>MS</i>	<i>F</i>	<i>p</i>	Scheffe post-hoc
Between Groups	26.416	2	13.208	28.55*	.001	*1>2
Within Groups	811.853	1755	.463			*1>3
Total	838.268	1757				

\* $p < .05$

Note: 1- humanities and social science groups.

2- business and management groups.

3- science and engineering groups.

Table 10 reveals that significant differences existed among majors with respect to the use of social strategies ( $F=70.77^*$ ,  $p<.05$ ). As Scheffe post hoc analysis present that significant differences existed among the groups of “humanities and social science” and “business and management”, “humanities and social science” and “science and engineering” in social strategy use. The mean scores indicate that the groups of humanities and social science were the most commonly users among all different majors in using social strategies.

**Table 10 Summary of One-way ANOVA and Scheffe Post Hoc for Using Social Strategies Regarding Majors**

Social Strategies	SS	df	MS	F	p	Scheffe post-hoc
Between Groups	84.483	2	42.242	70.77*	.001	*1>2
Within Groups	1047.488	1755	.597			*1>3
Total	1131.971	1757				

\*p<.05

Note: 1- humanities and social science groups.

2- business and management groups.

3- science and engineering groups.

According to the results of one-way ANOVA in Table 11, significant differences were found in the use of overall strategy regarding major differences ( $F=54.07^*$ ,  $p<.05$ ). The results of Scheffe post hoc analysis show that significant differences existed among the groups of “humanities and social science” and “business and management”, “humanities and social science” and “science and engineering” in overall strategy use. Therefore, resulting mean scores indicate that the groups of humanities and social science used overall strategies most frequently among all three majors.

**Table 11 Summary of One-way ANOVA and Scheffe Post Hoc for Using Overall**

<i>Strategy Regarding Majors</i>						
Overall Strategy	<i>SS</i>	<i>df</i>	<i>MS</i>	<i>F</i>	<i>p</i>	Scheffe post-hoc
Between Groups	33.896	2	16.948	54.07*	.001	*1>2
Within Groups	550.110	1755	.313			*1>3
Total	584.005	1757				

\*p<.05

Note: 1- humanities and social science groups.

2- business and management groups.

3- science and engineering groups.

## 5. Findings and Discussions

With reference to the research questions posed in this study, the findings and discussions were summarized as follows:

- (1) In general, there was not a big difference among the frequency of each strategy that Taiwanese college EFL learners report using, all in medium-use level. According to the rank order of the frequency of use, the most frequently used strategy was compensation strategies and followed by memory strategies, metacognitive strategies, social strategies, cognitive strategies and affective strategies. In line with the previous studies (Chang & Huang, 1999; Ho, 1999; Klassen, 1994; Teng, 1999; Yang, 1993, 1994), the finding of the current study

reveals that compensation strategies were most frequently used. In addition, the mean of frequency of overall strategy use was 2.89, which showed in medium use. The results show that these learners did not apply strategies as frequently as they could in learning English as a foreign language that was consistent with previous studies conducted either in Taiwan or in other countries (Chang, 1997; Ehrman & Oxford, 1989; Oxford, & Crookall, 1989).

(2) Statistically significant differences were found between male and female learners in their overall strategy use. In this current study, female learners showed significantly greater use of language learning strategies than did male learners in three of six categories on the SILL: cognitive strategies, metacognitive strategies, and social strategies. The finding of gender differences is in accordance with previous research studies (Ehrman & Oxford, 1989; Green & Oxford, 1995; Kaylani, 1996; Noguchi, 1991; Nyikos, 1990; Oxford, 1993; Oxford & Ehrman, 1993; Oxford & Nyikos, 1989; Politzer, 1983; Sy, 1994 & 1995; Willing, 1988; Yang, 1992 & 1994). According to Oxford (1993), one possible explanation might be related to female's social skills, stronger verbal skills, and greater conformity to academic and linguistic norms.

(3) Statistically significant differences existed among different majors in the use of overall strategies and six subcategories of language learning strategies. As the results indicate, learners in "humanities and social science" seemed to be more frequently in using overall strategies and six subcategories of language learning strategies than did learners in "business and management", "science and engineering". A number of studies have shown that significant relationships were found between majors and language learning strategy

choices, and the learners in “humanities and social science” reported using language learning strategies more commonly than did learners in other majors (Chang, 1991; Oxford & Nyikos 1989; Politzer & McGroarty, 1985, Yang, 1994), which are consistent with the finding in this present study. In general, majority of students who majored in “humanities and social science” in this study were female, and who majored in “science and engineering” were mostly male students; accordingly, the result of this current investigation is somewhat in accordance with the result showed in gender differences in using language learning strategies.

## **6. Pedagogical Implications**

The findings derived from the current study may suggest some pedagogical implications. Since it is very crucial for students to understand the importance of using language learning strategies in the process of language learning; hence, EFL teachers should deliver this message to their students. According to the results of this study, some students showed that they do not really use these strategies for their English learning even though they know the strategies are available. But some students reported that they even do not know there are strategies for language learning. Consequently, teachers should help students cultivate and raise their awareness of language learning strategies. Once students are aware of advantages of using strategies in their language learning process, they will be willing to and appropriately employ these strategies to facilitate their English learning.

## References

- Abraham, R. G., & Vann, R. J. (1987). Strategies of two language learners: A case study. In A. L. Wenden & J. Rubin (Eds.), *Learner strategies in language learning* (pp.85-102). Englewood Cliffs, NJ: Prentice-Hall.
- Bialystok, E. (1978). A theoretical model of second language learning. *Language Learning*, 28, 69-83.
- Chamot, A. U. (1987). The learning strategies of ESL students. In A. Wenden & J. Rubin (Eds.), *Learner strategies in language learning* (pp. 71-83). Englewood Cliffs, NJ: Prentice-Hall.
- Chamot, A. U., & Kupper, L. (1989). Learning strategies in foreign language instruction. *Foreign Language Annals*, 22, 13-24.
- Chang, S. F. & Huang, S. C. (1999). Taiwanese English learners' learning motivation and language learning strategies. *Proceedings of the Sixteenth Conference on English Teaching and Learning in the Republic of China* (pp.111-128), Taipei, Taiwan: The Crane Publishing Co.
- Chang, S. J. (1991). *A study of language learning behaviors of Chinese students at the University of Georgia and the relation of those behaviors to oral proficiency and other factors*. Unpublished doctoral dissertation, University of Georgia, Athens, GA.
- Chang, Y. J. (1997). *A study of English learning achievement in relation to English learning strategy and motivation of junior high school students in Taiwan*. Unpublished master's thesis, National Kaohsiung Normal University. Taiwan: Kaohsiung.
- Ehrman, M. & Oxford, R. (1989). Effects of sex differences, career choice, and psychological type on adult language learning strategies. *Modern Language Journal*, 73, 1-13.
- Green, J. M. & Oxford, R. L. (1995). A closer look at learning strategies, L2 proficiency, and gender. *TESOL Quarterly*, 29, 261-297.
- Ho, I. P. (1999). Relationship between motivation/attitude, efforts, and English proficiency and Taiwan Technological University students' English learning strategy use. *Journal of National Taipei University of Technology*, 32:1, 611-674.
- Kaylani, C. (1996). The influence of gender and motivation on EFL learning strategy use in Jordan. In R.L.Oxford (Ed.). *Language learning strategies around the world: Cross-cultural perspective* (pp.75-88). University of Hawaii Press.
- Klassen, J. (1994). *The language learning strategies of freshman English students in Taiwan: A case study*. Master's thesis, California State University at Chico, CA.
- MacIntyre, P. D. (1994). Toward a social psychological model of strategy use. *Foreign Language Annals*, 27 (2), 185-195.
- Naiman, N., Frohlich, M., Stern, H. H., & Todesco, A. (1978). *The good language learner* (Research in Education Series No.7). Toronto, Canada: Ontario Institute for Studies in Education.

- Nisbet, J. & Shucksmith, J. (1986). *Learning strategies*. NY: Routledge.
- Noguchi, T. (1991). *Review of language learning strategy: Research and its implications*. Unpublished bachelor's thesis, Tottori University, Tottori, Japan, 1991.
- Nyikos, M. (1990). Sex-related differences in adult language learning: Socialization and memory factors. *Modern Language Journal*, 74 (3), 273-287.
- O'Malley, J. M., & Chamot, A. U. (1990). *Learning strategies in second language acquisition*. Cambridge, UK: Cambridge University Press.
- O'Malley, J. M., Chamot, A. U., Stewner-Manzanares, G., Russo, R. P., & Kupper, L. (1985). Learning strategies used by beginning and intermediate ESL students. *Language Learning*, 35, 21-46.
- Oxford, R. L. (1989). Use of language learning strategies: A synthesis of studies with implication for strategy training. *System*, 17, 235-247.
- Oxford, R. L. (1990). *Language learning strategies: What every teacher should know*. Boston, MA: Heinle & Heinle Publishers.
- Oxford, R. L. (1993). Instructional implications of gender differences in L2 learning styles and strategies. *Applied Language Learning*, 4 (1-2), 65-94.
- Oxford, R. L., & Burry-stock, J. A. (1995). Assessing the use of language learning strategies worldwide with the ESL/EFL version of the strategy inventory for language learning (SILL). *System*, 23 (1), 1-23.
- Oxford, R. L., & Crookall, D. (1989). Research on language learning strategies: Methods, findings, and instructional issues. *Modern Language Journal*, 73, 404-19.
- Oxford, R. L., & Ehrman, M. (1993). Second language research on individual differences. *Annual Review of Applied Linguistics*, 13, 188-205.
- Oxford, R. L., & Ehrman, M. (1995). Adult's language learning strategies in an intensive foreign language program in the United States. *System*, 23 (3), 359-86.
- Oxford, R. L., & Nyikos, M. (1989). Variables affecting choice of language learning strategies by university students. *Modern Language Journal*, 73, 291-300.
- Politzer, R. (1983). An exploratory study of self-reported language learning behaviors and their relation to achievement. *Studies in Second Language Acquisition*, 6, 54-65.
- Politzer, R. L., & McGroarty, M. (1985). An exploratory study of learning behaviors and their relationship to gains in linguistic and communicative competence. *TESOL Quartely*, 19, 103-123.
- Ramasay, R.M.G. (1980). Language learning approach styles of adult multilingual and successful language learners. *Annals of the New York Academy of Sciences*, 345, 73-96.
- Reiss, M. A. (1983). Helping the unsuccessful language learner. *Canadian Modern Language Review*, 39 (2), 256-266.

- Rigney, J. W. (1978). Learning strategies: A theoretical perspective. In H. F. O'Neil, Jr. (Ed.), *Learning Strategies* (pp. 165-205). NY: Academic.
- Rubin, J. (1975). What the "good language learner" can teach us. *TESOL Quarterly*, 9, 41-51.
- Rubin, J. (1981). Study of cognitive processes in second language learning. *Applied Linguistics*, 11, 117-31.
- Schemeck, R. R. (Ed.) (1988). *Learning strategies and learning styles*. New York, NY: Plenum Press.
- Stern, H. H. (1975). What can we learn from the good language learner? *Canadian Modern Language Review*, 31, 304-18.
- Sy, B. M. (1994) Sex differences and language learning strategies. *Papers from the Eleventh Conference on English Teaching and Learning in the Republic of China* (pp.19-41). Taipei, Taiwan: The Crane Publishing Co.
- Sy, B. M (1995). Gender differences, perceptions on foreign language learning and language learning strategies. *Paper presented at the Twelfth Conference on English Teaching and Learning in the Republic of China* (pp.215-277). Taipei: The Crane Publishing Co.
- Teng, H. C. (1999). A study on English learning strategies used by students at technology university. *The Proceedings of the Eighth International Symposium on English Teaching*. Taipei, Taiwan: The Crane Publishing Co.
- Weinstein, C. E., & Mayer, R. E. (1986). The teaching of learning strategies. In M. C. Wittrock (Ed.), *Handbook of research on teaching* (3<sup>rd</sup> ed. pp.315-27). NY: Macmillan.
- Willing, K. (1988). *Learning Styles in adult migrant education*. Adelaide, South Australia: National Curriculum Resource Centre.
- Yang, B. L. (1993). *A study of English learning strategies and techniques used by senior high school students with high achievements in English*. Unpublished master's thesis, National Kaohsiung Normal University. Taiwan: Kaohsiung.
- Yang, N. D. (1992). *Second language learners' beliefs about language learning and their use of language learning strategies: A study of college students of English in Taiwan*. Unpublished doctoral dissertation, University of Texas at Austin, Texas.
- Yang, N. D. (1993). Beliefs about language learning and learning strategy use: A study of college students of English in Taiwan (pp.193-219). *Paper from the tenth conference on English teaching and learning in the Republic of China*. Taipei: The Crane Publishing Co.
- Yang, N. D. (1994). A study of factors affecting college EFL students' use of learning strategies. *Papers of the eleventh conference on English teaching and learning in the Republic of China* (pp.53-82). Taipei, Taiwan: The Crane Publishing Co.

## 台灣大學生英語學習策略之研究

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### 摘 要

本研究旨在於探討性別及不同學系對台灣大學生語言學習策略使用之影響。共有 1758 位來自北、中、南的大學生參與本研究。主要研究工具為一式兩份的問卷，包含個人基本資料及語言學習量表。本研究採用的分析方式主要為量化統計，包含描述性統計，獨立樣本 t 考驗，及單因子變異數分析。

本研究主要發現如下：

1. 台灣大學生在六大語言學習策略的使用頻率上並無顯著差異，皆為中等強度。
2. 不同性別的學生在使用認知策略，後設認知策略，社會策略及整體語言學習策略上有顯著差異。
3. 不同學系的學生在六大語言學習策略及整體語言學習策略的使用上，有顯著差異。

最後本研究亦提供了教學上的建議給從事英語教學的老師，建議老師們可以有計畫性的介紹及教導學生不同的語言學習策略，讓學生可以運用不同的學習策略，幫助學生更有效率的學習語言。

**關鍵詞：** 語言學習策略、語言學習策略量表

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