Title

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Permalink

https://escholarship.org/uc/item/7nz4793f

Journal

The CATESOL Journal, 4(1)

ISSN

1535-0517

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Publication Date

1991

DOI

10.5070/B5.36638

Peer reviewed

A Look at Learner Strategy Use and ESL Proficiency

■ This paper discusses part of a study conducted recently in which the patterns of learner strategy use of university-level, Asian ESL students were examined, here specifically in relation to the students' level of ESL proficiency. Strategy use was assessed through the Strategy Inventory for Language Learning (SILL), and proficiency was determined by TOEFL scores. It was the purpose of this part of the study to investigate both the frequency of use and the choice of strategies by students at intermediate and advanced levels of ESL proficiency. Research in the identification and application of successful learner strategies —research in learning not only what but how to learn—can help lead educators and students toward the goal of learner autonomy.

Although researchers continue to explore methodology and language learning curricula as factors influential in successful language learning, there has been, in recent years, a new focus in second language learning research: the exploration of learner strategies. Instead of placing emphasis on the teacher as the primary activator of language learning, researchers are increasingly turning to the student as a source of information regarding specific, conscious strategies used to facilitate the learning of the target language. It was my purpose in this study to identify patterns of second language learner strategies employed by one population of ESL students, so that teachers and students might become more aware of the range of possible strategies and how strategies can assist learners in becoming more autonomous.

In this study I was interested in exploring the patterns of learner strategies used by university-level, Asian ESL learners as self-reported in a language strategies questionnaire, the Strategy Inventory for Language Learning—ESL/EFL, or SILL (Oxford, 1990). I limited my student population to intermediate- and advanced-level Asian ESL students, proficiency levels being determined by scores on the Test of English as a Foreign Language (TOEFL). This study specifically addressed the following research questions:

1. What learner strategies are self-reported by adult, university-level, Asian learners of English as a second language?

2. Do the "good" language learners of this group, as determined by the level of English as a second language proficiency, report using a wider range of strategies than less proficient learners?

Sample and Methodology

The 141 subjects were drawn from a population of foreign-born, young adult students attending the intensive English as a second language programs at seven western state universities, three private and four public. These institutions were chosen because of the similarity of their ESL populations and their intensive English programs. Students' ages ranged from 17 to 30, and the sample included approximately equal numbers of males (46%) and females (54%). Most of the students in this sample were Japanese ($n = 53$) and Chinese ($n = 40$); other groups included Korean ($n = 18$), Indonesian ($n = 16$), and Thai ($n = 11$) students.

TABLE 1
Independent Variables Measured for This Study

Quantitative Variables

VARIABLE	LEVELS	RANGE	%
ESL proficiency level, as measured by the TOEFL	High	600-507	34.0
	Med	506-481	30.5
	Low	480-397	35.5

VARIABLE	MEAN	SD	
Length of time in the U.S.	0.74 years	0.51	
Length of time studying English in the U.S.	0.69 years	0.45	

Qualitative Variables

VARIABLE		%
Sex	Male	46
	Female	54
Major	Engineering/Science	28
	Social Science/Humanities	29
	Business	43
Ethnicity	Chinese	28
	Indonesian	11
	Korean	13
	Japanese	38
	Thai	8
	Other	2

By controlling for the independent variables of ethnicity and age (limited to adult Asian ESL learners), I investigated which patterns of strategies were used by students at three ESL proficiency levels, as determined by TOEFL scores which ranged from 397 to 600. I classified *low* scores as those within the 397-480 range ($n = 50$), *mid* scores as those from 481 to 506 ($n = 43$), and *high* scores as those from 507 to 600 ($n = 48$).

In addition, I analyzed student response on the SILL. The instrument contains 50 items that elicit, on a 1-5 Likert scale, (1) = *never or almost never true of me* to (5) = *always or almost always true of me*), the extent to which students use particular language learner strategies, classified as *mnemonic, cognitive, compensatory, metacognitive, affective,* and *social.* (See Appendix for sample items.) I surveyed 14 classes, each with an average of 20 ESL students and approximately 14 Asian students per class. I collected data from the intact, ethnically heterogeneous classes but analyzed only the questionnaires from the Asian students.

I established three dependent variables to operationalize *strategy use.* The first outcome variable was the mean SILL score (possible range: 1-5) for the total test. In addition, I broke down this dependent variable into the mean scores of each of the six strategy subcategories—Part A, mnemonic; Part B, cognitive; Part C, compensatory; Part D, metacognitive; Part E, affective; and Part F, social. My second dependent variable was the mean number of strategies in the total inventory (possible score range: 1-50) for which students indicated frequent (i.e., >3.0) use. My third dependent variable was the mean number of SILL strategy subcategories which had at least one score above 3.0 (possible score range: 1-6), also referred to as *mean range.*

Data Analysis and Results

What learner strategies are reported by adult Asian students of ESL? Mean scores were calculated for the individual SILL items and for the six subcategories. Most of the means for the individual items fell at or above 3.0 on the 5-point scale, indicating a relatively frequent use of all of the strategies. The six subcategories were then analyzed as separate dependent variables followed by pairwise comparisons. Figure 1 presents the mean SILL profiles for each of the SILL categories of strategies used by this group. A multivariate ANOVA showed significant differences in usage among the six subcategories of strategies (F [5,136] = 51.46, $p \leq .001$). Paired t-tests on adjacent pairs of strategy subgroups indicated that students reported using compensatory strategies to a significantly greater extent than cognitive strategies, cognitive strategies to a significantly greater extent than affective strategies, and affective strategies to a significantly greater extent than mnemonic strategies. Results show, too, that

students used metacognitive ($M = 3.70$) and social ($M = 3.65$) strategies more frequently than affective ($M = 3.12$) and mnemonic ($M = 3.00$) strategies. There were no significant differences between the other adjacent pairs. Table 2 shows the sequenced means and standard deviations and the t-test results.
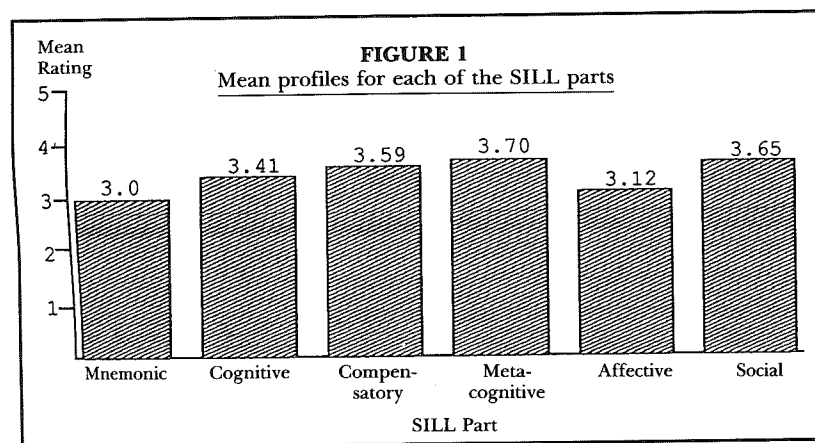

FIGURE 1
Mean profiles for each of the SILL parts

TABLE 2
T-Tests for Adjacent Part Means Sequenced by Magnitude ($N = 141$)

IDENTIFICATION	PART	MEAN	SD	DIFFERENCE	t	p
Metacognitive	D	3.70	0.50	D › F	0.81	0.42
Social	F	3.65	0.67	F › C	0.91	0.36
Compensatory	C	3.59	0.66	C › B	3.72	‹0.001
Cognitive	B	3.41	0.47	B › E	5.52	‹0.001
Affective	E	3.12	0.56	E › A	2.39	0.02
Mnemonic	A	3.00	0.55			

Do the good language learners of this group, as determined by level of ESL proficiency, report using a wider range of strategies than less proficient learners? I analyzed this second question by dividing the sample population into three levels of ESL proficiency (as determined by TOEFL scores) and examining these proficiency groups according to the same three outcome variables. Individual item analysis was done to determine whether or not there were isolated SILL items which showed significant differences between high- and low-proficiency groups.

Initially, in order to maximize the differences between the groups, I investigated only the mean scores of the high and low groups. There was no significant difference between the high and the low TOEFL groups on any of the three outcome variables.

Individual item analysis, however, revealed significant differences between the high- and the low-proficiency TOEFL groups on eight of the SILL items, as indicated in Table 3. Using flashcards (L = 2.52; H = 1.92; $p \leq .01$) and writing down feelings in a language learning diary (L = 2.34; H = 1.88; $p \leq .05$) were items that had low mean scores by both groups but differed significantly in that less frequent use was reported by the higher level group. Students from both groups tried not to translate word for word (L = 3.00; H = 3.42), with the higher group avoiding word-for-word translation significantly ($p \leq .04$) more often. The lower group reported significantly greater use of two metacognitive strategies: (a) trying to become a better learner in English ($p \leq .01$), and (b) looking for people to talk to in English ($p \leq .04$). Significantly greater ($p \leq .04$) self-awareness of tension or nervousness was reported by the lower group. The higher group indicated significantly greater ($p \leq .01$) circumlocution (using a word or phrase that means the same thing as the word the learner does not remember), a compensatory strategy, and use of clear goals for improving one's English skills ($p \leq .03$), a metacognitive strategy.

TABLE 3
Items Showing Significant Differences in High and Low TOEFL Groups

ITEM AND DESCRIPTION	PART	MEAN	p
Low TOEFL group reported greater use:			
6 I use flashcards to remember new English words.	A	Low . . . 2.52 High . . . 1.92	.01
33 I try to find out how to be a better speaker of English.	D	Low . . . 4.26 High . . . 3.85	.01
35 I look for people I can talk to in English.	D	Low . . . 3.58 High . . . 3.05	.04
2 I notice if I am tense or nervous when I am studying English.	E	Low . . . 3.46 High . . . 3.00	.04
43 I write down my feelings in a language learning diary.	E	Low . . . 2.34 High . . . 1.88	.05
High TOEFL group reported greater use:			
22 I try not to translate word for word.	B	Low . . . 3.00 High . . . 3.42	.04
29 If I can't think of an English word, I use a word or phrase that means the same thing.	C	Low . . . 3.90 High . . . 4.35	.01
37 I have clear goals for improving my English skills.	D	Low . . . 3.22 High . . . 3.75	.03

When the midrange TOEFL score group (with TOEFL scores of 481 to 506) was examined along with the highs and the lows, there were no statistically significant differences among the groups for dependent variable 1, mean SILL scores. However, there was significantly greater strategy use by the midgroup for the mean number of strategies with ratings greater than 3.0 (F [2,138] = 3.31, $p \leq .04$) and for the mean number of SILL subcategories with at least one score above 3.0 (F [2,183] = 3.82, $p \leq .02$), abbreviated here as mean range.

Results from this study indicate a relatively high level of strategy use, especially of the metacognitive and social strategies, for this population of adult Asian learners. ESL proficiency seems to affect strategy choice of the lowest- and highest-level students of this sample and notably of the middle-range proficiency subgroup, which reports significantly greater strategy use than either the higher or lower proficiency groups. These results provide valuable groundwork in the identification of the strategies second language learners use and, in the investigation of language proficiency level, as one variable possibly affecting strategy use.

Discussion

Students completing the 50-item SILL inventory indicate a relatively high use (i.e., $\geq$ 3.0 on a scale of 1-5) of the strategies in all of the subcategories: mnemonic, cognitive, compensatory, metacognitive, affective, and social. These findings support recent studies (O'Malley, 1984-1987; Oxford, 1985-1990) showing high self-reported strategy use based on both the SILL and other instruments of data collection. In this investigation, students report using metacognitive strategies with the greatest frequency, as indicated by the mean score on Part D of the SILL (3.70 on the 1-5 scale). The next most frequently employed category of strategies was social strategies (Part F; mean score = 3.65), contradicting the popular belief that Asian students generally resist using participation in social interaction as a means to improve their second language proficiency. The high mean scores of both the metacognitive and social strategies support data collected recently from a similar population using the SILL ($n = 43$) at Penn State (Oxford, Talbott, & Halleck, 1990) that also found the highest mean scores from these categories (social = 4.0; metacognitive = 3.9).

Mean SILL subcategory scores show that the next most frequently used strategies were compensatory ($M = 3.59$) and cognitive ($M = 3.41$). These results also matched the mean scores of the Penn State study (Oxford, Talbott, & Halleck, 1990). The least popular strategies in both this study and the Oxford et al. study, according to mean scores of the subcategories, are affective and mnemonic.

The individual items most frequently reported by the group in this study ($M \leq 4.0$) were metacognitive and compensatory strategies. These involved circumlocution ($M = 4.19$), planning (trying to find out how to be a better learner in English [$M = 4.08$]), using gestures when one cannot think of words during a conversation in English ($M = .04$), and paying attention when someone is speaking English ($M = .04$). These are communicative strategies which involve a conversational or interactional situation.

The least used items were primarily mnemonic strategies (in both this study and the Penn State study [Oxford, Talbott, & Halleck, 1990] as well): using flashcards ($M = .23$) and rhymes ($M = .66$) to remember new words, and physically acting out new words ($M = .62$). The less frequent use of these strategies may be related to the relatively high proficiency level of the students in this population. Foreign language studies (Atkinson, 1975; Levin, 1976; Raugh & Atkinson, 1975; Weinstein & Meyer, 1986) have shown mnemonic strategies to be effective in the memorization of vocabulary items (a skill associated more often with the beginning stages of second language learning) but assumed to be less relevant in communicative, interactional activities. The least used strategy was writing down feelings in a language learning diary. Although in some studies this strategy has been shown to be beneficial in language learning (Lavine & Oxford, 1990), it seems that few students independently discipline themselves to write in a language diary.

Initial data analysis of the low group (TOEFL scores 397-480) and the high group (TOEFL scores 507-600) revealed no differences in strategy use between the two groups on any of the three dependent variables. These results seemingly refute the conclusion from a number of recent studies in both foreign language (Chamot & Kupper, 1989) and ESL (O'Malley, 1982-4; Oxford, 1989-90; Oxford & Nykos, 1988) learning, that frequency of strategy use and range increased as students became more successful or proficient learners. However, the nonsignificant results from this study may be slightly misleading due to the instrument which was used to establish ESL proficiency and the way the groups were divided. It should be noted that the TOEFL scores of all the students in this sample were above 397, which is usually considered an intermediate-level score. That is, although for the purposes of this study, the 397-480 range was defined as low, it may not truly indicate a low level of proficiency. It was assumed that students at a lower TOEFL proficiency level might have considerable difficulty understanding the SILL items. Therefore, with the clarification that all of the students in this sample were at a relatively high (i.e., intermediate to advanced) level of ESL proficiency, the findings that strategy use did not significantly differ between the high and low groups are less surprising.

The midrange TOEFL score group, however, does provide some interesting data related to the relationship between strategy use and proficiency level. When *strategy use* was defined as the mean number of strategies for which students indicated frequent (i.e., >3.0) use (dependent variable 2) and the mean number of strategy sub-categories which had at least one score above 3.0 (dependent variable 3), the midgroup showed a significantly higher level of strategy use than either the low or the high group. It may be that this occurred because lower level students are less aware of the strategies and the higher level students need to consciously apply those strategies less often than the mid-level students.

In addition to the hypothesis that more proficient learners would use more strategies more often is the suggestion that students at different levels of proficiency use different strategies successfully. O'Malley and his colleagues (O'Malley, 1982-4; O'Malley, Chamot, Stewner-Manzanares, Kupper, & Russo, 1985) found that inter-mediate-level ESL students reported more metacognitive strategies than did beginning-level students, a finding consistent with my re-sults.

This study revealed that there were eight items that were used to a significantly different degree by what were defined as low and high groups. The low group's greater use of flashcards and word-for-word translation might be expected, as these are both vocabulary item-level strategies. Two metacognitive strategies (trying to find out how to be a better learner in English and looking for people with whom to speak English) had significantly higher mean scores for the lower group, but the mean scores of both groups for those two strategies were above 3.0.

As might be expected, the lower group reported greater awareness of tension or nervousness when studying English than the higher group. Higher level students used circumlocution (a compensatory strategy) significantly more than lower proficiency students, perhaps because more advanced students possess a greater repertoire of Eng-lish synonyms. The finding that the higher level students used clear goals for improving their English skills to a greater degree than less proficient students supports the hypothesis made by O'Malley et al. (1985) that the use of metacognitive strategies increases with profi-ciency level.

Conclusions, Implications, and Recommendations

Interpretation of the findings of this study suggests some conclu-sions for intermediate and advanced, university-level, Asian ESL stu-dents. First, these students consciously employ a variety of language learner strategies with great frequency, notably metacognitive strategies. Second, they possibly avoid, are unaware of, or don't know how to apply affective and mnemonic strategies in comparison to the strategies from other categories. Third, frequency of strategy use seems to vary according to ESL proficiency level, midrange profi-ciency students reporting significantly greater strategy use than the lower and higher groups.

There are several practical pedagogical implications that may be drawn from this research. Students can be asked to monitor each other and to take an active part in not only learning but also teaching. Successful language learners may serve as informants for students experiencing less success in language learning regarding strategies, techniques, and study skills. 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. Teachers may combine a variety of data collection methods (think aloud data, diaries, one-on-one and group interviews, semistructured and struc-tured questionnaires, such as the SILL) to elicit strategy information from their students.

Interpretations of the findings of this investigation also lead to several recommendations for further research. It is recommended that a replication of this study be done wherein (a) the Asian popu-lation in this study is compared with other ESL populations, (b) the SILL is compared with other types of data collection tools (e.g., diaries, interviews), (c) teacher judgments of what strategies they think their students use are compared with what their students (indi-cate they) actually use, (d) the SILL is translated and administered to lower proficiency students, and (e) students are trained in the use of these strategies so that trainability and transfer may be assessed. It is evident that many factors affect which strategies learners choose and the frequency with which they use them. More research is needed in this area to establish how effective strategy use may be facilitated by both the language teacher and the language student. ■

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Appendix

Strategy Inventory for Language Learning, Sample Items

1. Never or almost never true of me
2. Usually not true of me
3. Somewhat true of me
4. Usually true of me
5. Always or almost always true of me

(Write answers on worksheet)

Part A

1. I think of relationships between what I already know and new things I learn in English.
2. I use new English words in a sentence so I can remember them.

Part B

10. I say or write new English words several times.
11. I try to talk like native English speakers.

Part C

24. To understand unfamiliar English words, I make guesses.
25. When I can't think of a word during a conversation in English, I use gestures.

Part D

30. I try to find as many ways as I can to use my English.
31. I notice my English mistakes and use that information to help me do better.

Part E

39. I try to relax whenever I feel afraid of using English.
40. I encourage myself to speak English even when I am afraid of making a mistake.

Part F

45. If I do not understand something in English, I ask the other person to slow down or say it again.
46. I ask English speakers to correct me when I talk.