

Strategy Use by International Students during and after Intensive English

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### Abstract

English language learners use learning strategies to accomplish single or multi-skill tasks in English. Although there has been research in associating proficiency level with learning strategies, research is understated regarding the difference in strategy use between learners who must first pass through an intensive English program (IEP) and those who have entered into a four-year university program. This study examined the use of four strategies by two such groups of students. A modified version of Oxford's Strategy Inventory for Language Learners (SILL) was used. Results indicated that two of the four strategies (cognitive and compensatory) could not be reliably scaled by the items used in the questionnaire. The other two strategies (metacognitive and social) had low but acceptable internal consistency; students in the two groups showed no difference in their strategy use. If questionnaires could yield reliable scores on the subconstructs of strategy use, such research could reveal to students, educators, and curriculum designers which strategies are used more frequently by students who have gained admittance to a four-year American university. Until that time, strategies that could be employed to increase chances of academic English success are more intuitive than empirically justified.

*Keywords:* English as a second language, language learning, strategies, university

### Strategy Use by International Students during and after Intensive English

English language learners use learning strategies to accomplish single or multi-skill tasks in English. There has been extensive research in associating proficiency level with learning strategies (Oxford & Burry-Stock, 1995; Nguyen & Godwyll, 2010; Hong-Nam & Leavell, 2006), yet research is understated regarding the difference in strategy use between learners who must first pass through an intensive English program (IEP) and those who have entered into a four-year university program. Such research would reveal to students, educators, and curriculum designers which strategies are used more frequently by students who have gained admittance to a four-year American university, thereby highlighting strategies that could be employed to increase chances of academic English success.

#### **Research Questions**

- 1) Which language learning strategies were used more frequently by international students who have matriculated into the university as opposed to those who have not?
- 2) Were learning strategies used differently by students who have different characteristics (i.e., L1, gender)?

#### **Methods**

##### **Participants**

The participants in this project were 65 English as a second language (ESL) volunteer students enrolled in both intensive English and the university. This was a sample of convenience. Participants ranged in age from 18 to 28. Thirty-five students recruited from the Program in Intensive English (PIE) were enrolled in at least 18 hours of English instruction in Level 5, the last required level before matriculating to the university; all of the students were taking one university course, ENG 105, freshman composition. The majority of these students

were male (25) and spoke Arabic as their first language (27). Thirty students enrolled in the university were taking NAU 180 International Student Success, in which students explore approaches to academics and learning unique to the US university setting, life skills, study skills and strategies for learning language. The majority of the students were male (26) and spoke Arabic as their first language (21).

### **Instruments**

Two types of questionnaires were used. First, four brief questions elicited background information on gender, first language, and English study. Second, a modified version of the SILL (Strategy Inventory for Language Learning) questionnaire was used. This questionnaire was originally developed by Oxford (1990) and uses a Likert-scale to elicit strategy information on six categories: metacognitive, cognitive, memory, compensatory, social, and affective. It has been used in modified form in several language learning studies. Oxford and Ehrmann (1995) reported that the internal consistency for the entire scale was found to be between .89-.98 in studies worldwide; Nguyen and Godwyll (2010) reported a similar reliability estimate. While these reliability estimates are considered good, there is a problem insofar as the total score is often not used in studies; rather, researchers have examined the strategy use of the six scales (e.g., Hong-Nam & Leavell, 2006). In such cases, the internal consistency of the overall SILL is irrelevant. When the internal consistency of the categories of the questionnaire have been estimated, researchers have reported different estimates of internal consistency. For example, Zareva and Fomina (2013) administered their questionnaire to Russian pre-service TEFL university students and reported Cronbach alpha values of about .75 for the metacognitive and cognitive strategy sections, but lower values of about .55 for the memory and social strategy

sections. They reported values of .37 and .14 for compensatory and affective strategies, respectively.

Due to time constraints, low reliability estimates for affective strategies, and the nature of the target population, memory and affective sections were not included for this study. Instead, six questions each were selected for four sections: metacognitive (organizing and evaluating your learning), cognitive (using all your mental processes), compensatory (compensating for missing knowledge), and social (learning with others). See Appendix A for the questionnaire used in the study; the correspondence between the strategy sections and their appearance on the questionnaire can be found in Appendix B.

### **Procedures**

Members of the research team visited PIE classrooms during normal class sessions, with only one visit being made for data collection. Students completed the questionnaires and then members of the research team collected them. Members of the research team met with non-PIE international students outside class but on campus and during standard class hours (9 am to 4 pm). These students also completed the questionnaires and the members of the research team collected them. All participating students agreed to participate by signing an informed consent form.

After all the data were collected, members of the research team input the data into SPSS. Frequency data of strategy use in four SILL categories were compared between two groups: PIE students and students who matriculated directly into the university.

### **Results**

Before addressing the research questions, the internal consistency of the 4 sections is reported. Descriptive statistics are also provided. Then, responses of the two groups of students

are compared for each of the strategies. Finally, responses are analyzed by gender and first language.

In order to claim that the six items for each section of the SILL were reliably representing a subconstruct, internal consistency was estimated using Cronbach's alpha. As shown in Table 1, reliabilities varied from .15 for the cognitive section, to .69 for social and metacognitive strategies. Because some students did not answer each of the questions, the number of students is somewhat different for each section.

Table 1

*Internal Consistency of SILL Sections*

Metacognitive	Cognitive	Compensatory	Social
.69	.15	.49	.69
(N=61)	(N=63)	(N=63)	(N=56)

Descriptive statistics for the four sections of the SILL are shown in Table 2. For all 4 strategies, the average value on the 5-point scale was about 3.50, with standard deviations ranging from one-half to three-quarters of a score point.

Table 2

*Descriptive Statistics for the SILL Sections*

Statistic	Metacognitive	Cognitive	Compensatory	Social
Mean	3.59	3.42	3.32	3.54
St. Dev.	0.69	0.47	0.57	0.78
Min-Max	1.50-5.00	2.14-4.50	2.00-4.67	1.60-5.00

Note. N=67

The fact that the averages of six responses on a 5 point scale allowed us to consider the data at an interval level of measurement. Examination of the histograms showed fairly normal distributions. Thus, independent t-tests were used to compare the scores of the PIE students and the NAU students. Equal variances were assumed as the results of Levene's tests were not significant. Due to multiple comparisons, the .05 alpha level was adjusted to .0125.

The results of the comparison between the mean scores of PIE students and the students who had already matriculated to NAU revealed no statistically significant differences, as shown in Table 3 by both the facts that the observed t values do not exceed the critical t values, and that the 95% confidence intervals all contain 0.

Table 3

## Independent t-Tests among 4 Strategies by PIE and NAU Students

Strategy	Group	n	Mean	SD	df	t	95% CI	
							lower	upper
Meta-cognitive	PIE	35	3.46	0.62	63	-1.57	-.58	.07
	NAU	30	3.72	0.69				
Cognitive	PIE	35	3.38	0.47	63	-0.81	-.34	.14
	NAU	30	3.47	0.49				
Compensatory	PIE	35	3.40	0.52	63	1.00	-.14	.43
	NAU	30	3.25	0.63				
Social	PIE	35	3.41	0.77	63	-1.53	-.68	.09
	NAU	30	3.71	0.77				

Note.  $t_{critical}$ ,  $\alpha = .01$ ,  $df=60$ , = +/- 2.66

There were also no significant differences between male and female responses for metacognitive ( $t = -.16$ , nsd), cognitive ( $t = -.35$ , nsd), compensatory ( $t = .40$ , nsd) or social strategies ( $t = -.74$ , nsd). Because the majority of the respondents were Arabic speakers, with no sizeable second group, no comparisons were made based on first languages.

### **Relevance to PIE**

Our project was related to the PIE's third research priority, as it involved investigating the preparedness of students to enter/take classes at NAU by comparing their used of learning strategies with students who had already entered NAU. The first research question implied that there would be differences between the two groups of students, as it asked "Which language learning strategies were used more frequently by international students who have matriculated into the university as opposed to those who have not?" There were no differences between these two groups. The second research question asked about other possible caused for differences. One factor, first language, could not be examined due to the preponderance of Arabic speakers; the other factor, gender, revealed no differences.

Unfortunately, these results are not trustworthy. The cause for this doubt can be found in the lack of reliability of the measures used in the study. This is similar to the reliability estimates reported in Zareva and Fomina (2013). Certainly in the case of the cognitive and compensatory strategies, we can have no confidence that the items can be used together to represent a scale. The fact that we ran t-tests on these measures can be explained by the nature of our project—a class project which served as a heuristic device to understand better research methods in applied linguistics. The other two strategies, metacognitive and social, had low but acceptable reliability; these results may be cautiously accepted.

Perhaps the greatest relevance of this study to the PIE is to serve as a caution. Whenever researchers seek to explain a construct, it is imperative that we check the items, or observations, that we believe represent that underlying behavior or ability. Many have argued that without reliability, there can be no claim for validity. This study suffered from such a lack of internal validity.



## References

- Hong-Nam, K., & Leavell, A. (2006). Language learning strategy use of ESL students in an intensive English learning context. *System, 34*, 399-415.
- Nguyen, N., & Godwyll, F. (2010). Factors influencing language-learning strategy use of English learners in an ESL context. *Mid-western Educational Researcher, 23*(4), 7-13.
- Oxford, R. (1990). *Language learning strategies: What every teacher should know*. New York, NY: Newbury House.
- Oxford, R., & Burry-Stock, J. (1993). Assessing the use of language learning strategies worldwide with the ESL/EFL version of the strategy inventory for language learners (SILL). *System, 23*, 1-23.
- Oxford, R., & Ehrman, M. (1995). Adults' language learning strategies in an intensive foreign language program in the United States. *System, 23*, 359-386.
- Zareva, A., & Fomina, A. (2013). Strategy use of Russian pre-service TEFL university students: Using a strategy inventory for program effectiveness evaluation. *International Journal of English Studies, 13*, 69-88.

Appendix A  
Strategy Survey

**Directions**

Please read each statement about learning English. Then circle the answer that is true for you. Answer in terms of how well the statement describes **you**. Do not answer how you think you should be, or what other people do. There are no right or wrong answers to these statements.

*Example:*

1. I say or write new English words several times.	1	2	3	4	5
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	Never	Less than half the time	About half the time	More than half the time	Always
1. I try to guess what the other person will say next in English.	1	2	3	4	5
2. I read English without looking up every new word.	1	2	3	4	5
3. I plan my schedule so I will have enough time to study English	1	2	3	4	5
4. I try not to translate word-for-word.	1	2	3	4	5
5. I practice English with other students.	1	2	3	4	5
6. I ask questions in English.	1	2	3	4	5
7. I notice my English mistakes and use that information to help me do better.	1	2	3	4	5
8. I find the meaning of an English word by dividing it into parts that I understand.	1	2	3	4	5
9. To understand unfamiliar English words, I make guesses.	1	2	3	4	5
10. I look for words in my own language that are similar to new words in English.	1	2	3	4	5
11. If I do not understand something in English, I ask the other person to slow down or to say it again.	1	2	3	4	5
12. I ask English speakers to correct me when I talk.	1	2	3	4	5
13. I watch English language TV shows or go to movies spoken in English.	1	2	3	4	5
14. I try to find out how to be a better learner of English.	1	2	3	4	5
15. When I can't think of a word during a conversation in English, I use gestures.	1	2	3	4	5
16. I make summaries of information that I hear or read in English.	1	2	3	4	5

	Never	Less than half the time	About half the time	More than half the time	Always
17. If I can't think of an English word, I use a word or phrase that means the same thing.	1	2	3	4	5
18. I try to find as many ways as I can to use my English.	1	2	3	4	5
19. I look for people I can talk to in English.	1	2	3	4	5
20. I make up new words if I do not know the right ones in English.	1	2	3	4	5
21. I first skim an English passage (read it quickly) then go back and read carefully.	1	2	3	4	5
22. I try to learn about the culture of English speakers.	1	2	3	4	5
23. I think about my progress in learning English.	1	2	3	4	5
24. I ask for help from English speakers.	1	2	3	4	5

## Background Questionnaire

### Directions

Please answer the following questions about yourself.

**1. What is your gender?**

- Male  
 Female

**2. What is your first language?**

- Arabic  
 Chinese  
 Japanese  
 Korean  
 Portuguese  
 Spanish  
 Other (please specify): \_\_\_\_\_

**3. Are you in the PIE now?**

- Yes  
 No

**4. How long have you been studying English? \_\_\_\_\_ years**

Appendix B  
Correspondence between Strategies and Item Numbers on Questionnaire

Part	Which strategies are covered
<b>A</b>	Remembering more effectively
<b>B</b>	Using all your mental processes
<b>C</b>	Compensating for missing knowledge
<b>D</b>	Organizing and evaluating your learning
<b>E</b>	Managing your emotions
<b>F</b>	Learning with others

**Part B**

- 21 1. I first skim an English passage (read it quickly) then go back and read carefully.  
 10 2. I look for words in my own language that are similar to new words in English.  
 8 3. I find the meaning of an English word by dividing it into parts that I understand.  
 4 4. I try not to translate word-for-word.  
 16 5. I make summaries of information that I hear or read in English.  
 13 6. I watch English language TV shows or go to movies spoken in English.

**Part C**

- 9 1. To understand unfamiliar English words, I make guesses.  
 15 2. When I can't think of a word during a conversation in English, I use gestures.  
 20 3. I make up new words if I do not know the right ones in English.  
 2 4. I read English without looking up every new word.  
 1 5. I try to guess what the other person will say next in English.  
 17 6. If I can't think of an English word, I use a word or phrase that means the same thing.

**Part D**

- 18 1. I try to find as many ways as I can to use my English.  
 7 2. I notice my English mistakes and use that information to help me do better.  
 14 3. I try to find out how to be a better learner of English.  
 3 4. I plan my schedule so I will have enough time to study English.  
 19 5. I look for people I can talk to in English.  
 23 6. I think about my progress in learning English.

**Part F**

- 11 1. If I do not understand something in English, I ask the other person to slow down or to say it again.  
 12 2. I ask English speakers to correct me when I talk.  
 5 3. I practice English with other students.  
 24 4. I ask for help from English speakers.  
 6 5. I ask questions in English.  
 22 6. I try to learn about the culture of English speakers.