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Integrative Motivation as a Predictor of Achievement in the Foreign Language Classroom

Todd A. Hernández
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This study examines the relationship among five independent variables—integrative motivation, instrumental motivation, the need to fulfill a foreign language requirement, grade point average (GPA), and previous years studying Spanish—as predictors of five dependent variables: scores on a simulated oral proficiency interview (SOPI), final exam grades, final grades, the desire to enroll in Spanish courses after completing the language requirement, and intention to major in Spanish. Data from a questionnaire and a SOPI administered to 130 students enrolled in fourth-semester Spanish identified integrative motivation as a significant predictor of SOPI scores and final exam grades. Furthermore, integrative motivation was a significant predictor of students' desire to enroll in additional coursework after completing the four-semester foreign language requirement. It also had an important role in students' intention to major in the language. A negative relationship was found between the need to fulfill the language requirement and intent to continue with further studies in Spanish. The findings demonstrate that integrative motivation is important in predicting student achievement in the foreign language classroom.

Despite numerous studies identifying motivation as important to second language (L2) learning, few researchers have examined the specific conditions that connect motivation to students' L2 speaking proficiency. The present study is therefore unique in that it investigates the relationship between motivation and students' scores on a simulated oral proficiency interview (SOPI).¹

This study focused on five variables—integrative motivation, instrumental motivation, the need to fulfill a foreign language requirement, grade point average (GPA), and previous years studying Spanish—and their relationship to five distinct measures of L2 achievement.² Gardner and Lambert (1959) defined integrative motivation as an interest in learning the L2 in order to interact with the L2 group, as well as positive attitudes toward these people and their culture. Instrumental motivation suggested a desire to learn the L2 in order to fulfill a pragmatic objective, such as to enhance future career opportunities.

Subsequent research identified a positive relationship between integrative motivation and language achievement at different levels of instruction (Clément, 1980; Gardner, 1985, 2000; Gardner, Day, & MacIntyre, 1992; Gardner & Lambert, 1972; Gardner & MacIntyre, 1991, 1993; Gardner, Tremblay, & Masgoret, 1997; Masgoret & Gardner, 2003). For example, Gardner and Lambert (1972) investigated the relationship between integrative and instrumental motivation and the L2 achievement of students enrolled in French courses, reporting a significant positive correlation between integrative

motivation and achievement in French. Gardner, Tremblay, and Masgoret (1997) offered further evidence to support a relationship between integrative motivation and L2 achievement. Student achievement was measured by a 100-item multiple choice achievement test, a cloze test, a vocabulary test, a composition, and grades in French. The authors found a significant correlation between integrative motivation and each measure of L2 achievement. Ely (1986) then examined the extent to which the integrative and instrumental motivation paradigm could describe the motivation of first-year university students of Spanish. His factor analysis of responses to a questionnaire found three existing motivation factors: (1) integrative motivation, (2) instrumental motivation, and (3) the motivation provided by the need to fulfill the foreign language requirement. Finally, Ramage (1990) investigated the relationship between motivation and the desire to continue to enroll in French or Spanish courses after completing the second-year of high school. She determined that a positive relationship existed between interest in the L2 culture and intent to continue studying French or Spanish.

The present study further explores the role of motivation in the L2 classroom through an examination of the relationship among the aforementioned five variables and five outcomes: speaking proficiency, final exam grades, final course grades, desire to enroll in additional Spanish courses after completing the language requirement, and intention to major in Spanish. In particular, this study seeks to determine how motivation contributes to the development of L2 oral proficiency after controlling for GPA and previous years studying Spanish. The investigation will address the following five research questions:

Research Question 1: Does type of motivation predict SOPI scores after controlling for GPA and previous years studying Spanish?

Research Question 2: Does type of motivation predict final course grades after controlling for GPA and previous years studying Spanish?

Research Question 3: Does type of motivation predict final exam grades after controlling for GPA and previous years studying Spanish?

Research Question 4: Does type of motivation predict the desire to continue the study of Spanish beyond the four-semester foreign language requirement, after controlling for GPA and previous years studying Spanish?

Research Question 5: Does type of motivation predict the intention to declare a major in Spanish, after controlling for GPA and previous years studying Spanish?

Method

Participants

Participants consisted of 130 undergraduates completing a fourth-semester Spanish course at a large Midwestern university. The sample ($n = 130$) was selected at random from the population of students ($N = 384$) enrolled in fourth-semester Spanish in the spring semester of 2003. Fifty-two students (40%) were male and 78 (60%) were female. Their ages ranged from 18 to 24 years ($M = 20.34$, $SD = 1.78$). Twenty-two students (16.9%) had studied Spanish for two years at the secondary and post-secondary

levels, 17 students (13.1%) three years, 43 students (33.1%) four years, and 48 students (36.9%) for more than four years. A total of 47 students (36.2%) indicated their intention to continue Spanish studies upon fulfillment of the four-semester language requirement. There were 83 students (63.8%) who did not intend to take additional coursework, while 14 students (10.8%) declared Spanish as their major.

Assessment Instruments

Motivation Questionnaire: Students completed a 26-item questionnaire³ in the first week of March of 2003. The questionnaire (see Appendix A) consisted of two parts: Student Background Information and Motivation Index. The first part of the questionnaire included questions concerning gender, age, academic major, GPA, previous language experience, desire to enroll in further coursework in Spanish after completing the four-semester language requirement, and intent to major in Spanish. The second part⁴ consisted of three distinct subscales: integrative motivation, instrumental motivation, and the foreign language requirement. Using a 4-point Likert-type scale, students indicated the extent to which different reasons for studying Spanish were important to them.

Simulated Oral Proficiency Interview: To assess students' oral proficiency, a SOPI was administered during the third week of March of 2003. The SOPI consisted of a warm-up section and seven speaking tasks. In the warm-up, students answered questions in a simulated conversation with a native Spanish speaker. Students then responded to seven performance-based tasks. Their functions and ACTFL OPI levels were: (1) asking questions (Intermediate); (2) providing a simple description (Intermediate); (3) giving directions (Intermediate); (4) narrating in the present time (Advanced); (5) narrating in the past time (Advanced); (6) discussing personal activities (Intermediate); and (7) explaining a process (Advanced).⁵

Final Grade: The Spanish course was designed to provide students with practice in the four-skills. The evaluation criteria consisted of: classroom participation (5%); homework (10%); four written compositions (20%); four reading comprehension exams (15%); four listening comprehension exams (15%); a midterm exam (10%), two oral presentations (10%); and a final exam (15%).

Final Exam: The comprehensive final exam assessed students' overall achievement. All students completed the same final exam.

Both descriptive and inferential statistics were used to address the research questions. Statistical techniques included: (a) descriptive analysis, (b) simultaneous multiple regression analysis (research questions one, two, and three), and (c) logistic regression analysis (research questions four and five).

Results

This section reports the results of the motivation questionnaire, the SOPI scores, and the relationships among the five predictor variables and the five outcomes.

Motivation Questionnaire

Part II of the questionnaire consisted of three subscales: integrative motivation (nine items), instrumental motivation (three items), and the foreign language requirement (two items). Scores on each of these subscales were calculated.⁶ Students' scores on

the integrative motivation subscale (maximum score = 27) ranged from one to 27 ($M = 15.45$, $SD = 6.33$). Scores on the instrumental motivation subscale (maximum score = 9) ranged from zero to eight ($M = 3.88$, $SD = 2.41$). The foreign language requirement subscale (maximum score = 6) provided scores ranging from zero to six ($M = 4.83$, $SD = 1.85$).

SOPI Scores

Students’ scores on the SOPI⁷ are shown in Table 1. The mean for the SOPI was 4.18 and the standard deviation was 0.68. SOPI scores ranged from novice high to intermediate high. Table 1 indicates that 72 out of 130 students (55.38%) received a rating of intermediate low, 38 students (29.23%) received a rating of intermediate mid, 18 students (13.85%) were rated novice high, and 2 students (1.54%) were rated intermediate high.

Table 1. Means, Standard Deviations, Frequencies, and Percentages on the SOPI

<i>ACTFL Oral Proficiency Level</i>	<i>Assigned OPI Value</i>	<i>Frequency</i>	<i>Percentage</i>
Intermediate High	6	2	1.5
Intermediate Mid	5	38	29.2
Intermediate Low	4	72	55.5
Novice High	3	18	13.8
		----	-----
N = 130		130	100 %
Mean = 4.18			
SD = .68			

Simultaneous multiple regression analyses⁸ were performed in order to determine the significant predictors of SOPI scores, final course grades, and final exam grades. Students’ raw scores on the integrative motivation, instrumental motivation, and the foreign language requirement motivation subscales were entered as independent predictor variables. The SOPI scores, final course grades, and final exam grades were entered as the dependent variables. GPA (see item 5 in Appendix A) and previous years studying Spanish (see item 6 in Appendix A) were entered as the control variables.

Research Question 1: Does type of motivation predict SOPI scores after controlling for GPA and previous years studying Spanish?

The prediction for the SOPI scores is presented in Table 2. The multiple regression model was significant $R^2 = 0.25$, $F(5, 124) = 8.47$, $p < 0.001$.

Table 2. Simultaneous Multiple Regression Model Predicting the SOPI Scores

<i>Variable</i>	<i>r</i>	β	<i>t</i>	<i>p</i>
Integrative Motivation	.433	0.333	3.782	<0.001
Instrumental Motivation	.183	0.063	0.760	0.449
FL Requirement	-0.259	-0.127	-1.534	0.128
GPA	0.210	0.196	2.517	0.013
Previous Spanish	0.225	0.111	1.356	0.178

As shown in Table 2, integrative motivation ($\beta = 0.333$, $t = 3.782$, $p < 0.001$) was identified as the single significant predictor of SOPI scores after controlling for students' GPA ($\beta = 0.196$, $t = 0.196$, $p = 0.013$) and previous years studying Spanish ($\beta = 0.111$, $t = 1.356$, $p = 0.178$). Instrumental motivation ($\beta = 0.063$, $t = 0.760$, $p = 0.449$) and foreign language requirement ($\beta = -0.127$, $t = -1.534$, $p = 0.128$) were not identified as significant predictors.

Research Question 2: Does type of motivation predict final course grades after controlling for GPA and previous years studying Spanish?

Table 3 presents the prediction for the final course grades. The multiple regression model was significant $R^2 = 0.33$, $F(5, 124) = 12.07$, $p < 0.001$.

Table 3. Simultaneous Multiple Regression Model Predicting Final Course Grades

<i>Variable</i>	<i>r</i>	β	<i>t</i>	<i>p</i>
Integrative Motivation	0.243	0.162	1.933	0.056
Instrumental Motivation	0.027	-0.039	-0.497	0.620
FL Requirement	-0.175	-0.120	-1.531	0.620
GPA	0.503	0.496	6.723	<0.001
Previous Spanish	0.174	0.107	1.374	0.172

However, as shown in Table 3, none of the predictor variables were identified as significant predictors of final course grades after controlling for GPA ($\beta = 0.496$, $t = 6.723$, $p < 0.001$) and previous years studying Spanish ($\beta = 0.107$, $t = 1.374$, $p = 0.172$). Integrative motivation ($\beta = 0.162$, $t = 1.933$, $p = 0.056$), instrumental motivation ($\beta = -0.039$, $t = -0.497$, $p = 0.620$) and foreign language requirement ($\beta = -0.120$, $t = -1.531$, $p = 0.128$) were not significant predictors.

Research Question 3: Does type of motivation predict final exam grades after controlling for GPA and previous years studying Spanish?

The prediction for final exam grades appears in Table 4. Again, the multiple regression model was significant $R^2 = 0.37$, $F(5, 124) = 14.29$, $p < 0.001$.

Table 4. *Simultaneous Multiple Regression Model Predicting Final Exam Grades*

<i>Variable</i>	<i>r</i>	β	<i>t</i>	<i>p</i>
Integrative Motivation	.239	0.191	2.349	0.020
Instrumental Motivation	-0.033	-0.094	-1.232	.220
FL Requirement	-0.104	-0.048	-0.627	0.532
GPA	0.543	0.533	7.438	<0.001
Previous Spanish	0.185	0.121	1.611	0.110

As indicated in Table 4, integrative motivation ($\beta = 0.191$, $t = 2.349$, $p = 0.020$) was identified as a significant predictor of students’ final exam grades after controlling for GPA ($\beta = 0.533$, $t = 7.438$, $p < 0.001$) and previous years studying Spanish ($\beta = 0.121$, $t = 1.611$, $p = 0.110$). Instrumental motivation ($\beta = -0.094$, $t = -1.232$, $p = .220$) and foreign language requirement ($\beta = -0.048$, $t = -0.627$, $p = 0.532$) were not identified as significant predictors.

Research Question 4: Does type of motivation predict the desire to continue the study of Spanish beyond the four-semester foreign language requirement, after controlling for GPA and previous years studying Spanish?

Logistic regression analysis was performed in order to determine the significant predictors of students’ desire to continue the study of Spanish. As with the simultaneous multiple regression analyses, students’ raw scores on the integrative motivation, instrumental motivation, and foreign language requirement motivation subscales were entered as independent predictor variables. Desire to continue the study of Spanish after completing the four-semester foreign language requirement (see item 9 in Appendix A) was entered as the dependent variable.⁹ GPA and previous years studying Spanish were entered as the control variables. The results of the logistic regression are presented in Table 5. The logistic regression model was significant $\chi^2(5) = 68.54$, $p < 0.001$.

Table 5. Logistic Regression Model Predicting the Desire to Continue the Study of Spanish

Predictor	B	SE B	Wald	e^B	Confidence Interval
Integrative Motivation	0.229**	0.053	18.662	1.258	1.133 to 1.395
Instrumental Motivation	-0.009	0.109	0.006	0.992	0.800 to 1.229
FL Requirement	-0.527**	0.149	12.581	0.590	0.441 to 0.790
GPA	0.342	0.529	0.418	1.408	0.499 to 3.970
Previous Spanish	0.662*	0.260	6.476	1.938	1.164 to 3.225
Constant	-5.617				

Note. e^B = exponentiated B or odds ratio. The log likelihood of deviance $-2\ln(L) = 101.57$

Cox and Snell $R^2 = 0.410$. ** $p < 0.001$. * $p < 0.05$.

Integrative motivation and the foreign language requirement were identified as significant predictors of students' decisions to continue taking Spanish. There was a positive relationship between integrative motivation and the students' desire to continue in Spanish courses. As shown in Table 5, for each unit increase in integrative motivation, the odds ratio ($e^B = 1.258$) that a student would continue the study of Spanish increased by 25.8%. In contrast, a negative relationship was found between the foreign language requirement and students' desire to continue their studies in Spanish. For each unit increase in foreign language requirement (see Table 5), the odds ratio ($e^B = 0.590$) that the student would continue to take Spanish courses after fulfilling the language requirement decreased by 41.0%.

Research Question 5: Does type of motivation predict the intention to declare a major in Spanish, after controlling for GPA and previous years studying Spanish?

Logistic regression analysis was also conducted to determine the significant predictors of students' intention to major in Spanish. As with the previous logistic regression, students' raw scores on the integrative motivation, instrumental motivation and foreign language requirement subscales were entered as independent predictor variables. Intent to study toward a major in Spanish (see item 10 in Appendix A) was entered as the dependent variable.¹⁰ GPA and number of total years studying Spanish were again entered as the control variables. Table 6 presents the results of the logistic regression. The logistic regression model was significant $\chi^2(5) = 41.91, p < 0.001$.

Table 6. *Logistic Regression Model Predicting the Intention to Declare a Major in Spanish*

<i>Predictor</i>	<i>B</i>	<i>SE B</i>	<i>Wald</i>	<i>e^B</i>	<i>Confidence Interval</i>
Integrative Motivation	0.333**	0.101	10.814	1.396	1.144 to 1.702
Instrumental Motivation	-0.143	0.201	0.503	0.867	0.584 to 1.286
FL Requirement	-0.475*	0.203	5.457	0.622	0.418 to 0.926
GPA	0.158	0.802	0.039	1.171	0.243 to 5.636
Previous Spanish	1.194	0.621	3.702	3.301	0.978 to 11.140
Constant	-11.988				

Note. e^B = exponentiated B or odds ratio. The log likelihood of deviance $-2\ln(L) = 46.92$

Cox and Snell $R^2 = 0.276$. ** $p < 0.001$. * $p < 0.05$.

Integrative motivation and the foreign language requirement were identified as significant predictors of students’ decisions to major in Spanish. There was a positive relationship between integrative motivation and the students’ intention to study toward a major in Spanish. As indicated in Table 6, for each unit increase in integrative motivation, the odds ratio ($e^B = 1.396$) that a student would major in Spanish increased by 39.6%. In contrast, a negative relationship was found between the foreign language requirement and students’ intention to pursue a major in Spanish. For each unit increase in foreign language requirement (see Table 6), the odds ratio ($e^B = 1.171$) that the student would major in Spanish decreased by 37.8%.

Discussion

The results are unique in providing solid evidence that integrative motivation is important for stimulating students’ L2 speaking proficiency. This investigation thus provides strong support for the relationship between integrative motivation and different measures of achievement in the L2 classroom.

Simultaneous multiple regression analysis identified integrative motivation as a significant predictor of students’ SOPI scores even after controlling for GPA and previous years studying Spanish. The results of this first research question demonstrate that students with higher integrative motivation received higher SOPI scores. This result expands upon previous research on the relationship between integrative motivation and L2 achievement. As Masgoret and Gardner (2003) note, previous studies have, for the most part, focused on the relationship between motivation and measures of L2 achievement such as self-rating scales, written examinations, and course grades. Here, the SOPI, a standardized test of speaking proficiency, was used as one of the measures of L2 achievement.

The author believes that performance-based exams such as the SOPI or the OPI are better able to demonstrate the effect of motivation on L2 performance.

The second research question sought to determine if integrative motivation, instrumental motivation, and the foreign language requirement were significant predictors of final course grades after controlling for GPA and previous years studying Spanish. Simultaneous multiple regression analysis indicated that motivation was not a significant predictor. Rather, the results identified GPA as the best predictor of students' final course grades. An examination of the components of the final grade revealed that coursework did not include a performance-based measure of L2 oral proficiency. In designing an L2 course, instructors should therefore incorporate performance-based measures into the assessment procedures in order to better develop students' L2 proficiency.

The third research question addressed the role of integrative motivation, instrumental motivation, and the foreign language requirement in predicting students' final exam grades. Simultaneous multiple regression analysis identified integrative motivation as a significant predictor of final exam grades. Again, this relationship was found after controlling for GPA and previous years studying Spanish. Students with higher integrative motivation received higher final exam grades. This result is consistent with previous research indicating a positive relationship between integrative motivation and L2 achievement (Gardner, Day, & MacIntyre, 1992; Gardner & Lambert, 1972; Gardner & MacIntyre, 1993; Masgoret & Gardner, 2003).

The fourth and fifth research questions investigated the relationship between motivation and persistence in foreign language studies after controlling for GPA and previous years studying Spanish. Logistic regression analysis identified integrative motivation as a significant predictor of students' desire to continue further coursework in Spanish after completing the four-semester language requirement. There was also a negative relationship between the language requirement and students' desire to enroll in additional Spanish courses. These results indicate that students with higher integrative motivation were more interested in continuing their studies in Spanish after their fourth-semester course. Logistic regression analysis further identified integrative motivation as a significant predictor of students' intention to declare a major in Spanish. Students with higher integrative motivation were more interested in pursuing Spanish as their academic major.

Conclusion

The present study demonstrates four major points. First, integrative motivation is critical for the development of students' L2 oral proficiency. Second, the results indicate that integrative motivation does indeed contribute to students' desire to take further coursework in the language. Third, integrative motivation has a significant role in students' decision to declare a major in the L2. Fourth, there is a positive relationship between integrative motivation and final exam grades. Instructors should therefore promote integrative motivation as an avenue to increase student achievement.

The *Standards for Foreign Language Learning* (National Standards, 1999) provide instructors with a framework for attending to integrative motivation in the L2 classroom. First, instructors can foster integrative motivation with activities that require students to interview native or near-native speakers of the L2 and then present their interviews to the class (National Standards 1.1, 1.2, 1.3, 2.1, 3.1, 3.2, 4.2, 5.1). Second, the sustained use of authentic materials provides students with meaningful opportunities to interact with the L2 culture. The integration of these materials into the L2 classroom

is a key component of the National Standards and is also effective in increasing students' integrative motivation. Third, instructors can further enhance integrative motivation through the use of multimedia—the Internet, e-mail, radio, L2 satellite television, and computer software programs—that allow students to experience and interact with the L2 culture (Standards 1.1, 1.2, 1.3, 3.1, 3.2, 5.1). Skype, for example, allows students to participate in conversations with native speakers of different L2 communities (Coffey and Banhidi, 2007). Fourth, the integration of a service-learning component further allows students to interact with native speakers and thus provides instructors with numerous opportunities to address the National Standards (Hellebrandt & Varona, 1999).

In addition to promoting integrative motivation, instructors should also address instrumental aspects of motivation in the language classroom. Instructors should invite guest speakers to the classroom to discuss topics such as: (1) career opportunities using the L2, (2) the current status as well as the future of the L2 in the United States and abroad, and (3) current events (Standards 1.1, 1.2, 3.1, 3.2, and 5.1).

Instructors should further administer a questionnaire at the beginning of the semester to inquire about students' interests regarding their L2 studies. Activities that address these areas can then be included in the course design. Instructors should assist students in establishing realistic goals and expectations for their L2 studies, as well as discuss with them the importance of participating in extracurricular language activities and study abroad opportunities.

In summary, this study has demonstrated that integrative motivation is a significant predictor of student achievement in the L2 classroom. A future L2 motivation research agenda might include examining the relationship between integrative motivation and the achievement of students of other L2s: Is integrative motivation an important variable for these students? Do extracurricular opportunities with the L2 group influence the development of integrative motivation? Researchers should also investigate the relationship between motivation and the linguistic and non-linguistic outcomes of students in a study abroad environment. Further research should also determine the importance of specific teaching strategies in fostering motivation. Such research has the potential to enhance the L2 learning experience for all students.

Questionnaire

Part I. Student Background Information

1. Gender:
 - a. Male
 - b. Female
2. Age: _____
3. Academic status:
 - a. Freshman
 - b. Sophomore
 - c. Junior
 - d. Senior
 - e. Other (please specify) _____

4. Academic major:
 - a. Business
 - b. Education
 - c. Engineering
 - d. Liberal Arts & Sciences
 - e. Other (please specify) _____

5. Cumulative grade point average in all undergraduate courses: _____

6. Number of TOTAL years studying Spanish:
 - a. 0-1
 - b. 1+ to 2
 - c. 2+ to 3
 - d. 3+ to 4
 - e. 4+

7. Number of years studying Spanish at the high school level:
 - a. 0-1
 - b. 1+ to 2
 - c. 2+ to 3
 - d. 3+

8. Have you spent more than three months in a Spanish-speaking region before?
 - a. Yes
 - b. No

9. Do you plan to take Spanish beyond the four-semester foreign language requirement?
 - a. Yes
 - b. No

10. Do you plan to study toward a major in Spanish?
 - a. Yes
 - b. No

11. Are you of Hispanic descent?
 - a. Yes
 - b. No

12. Did you speak Spanish in your home?
 - a. Yes
 - b. No

Part II. Motivation Index

Use the following scale to indicate the degree to which the following reasons for studying Spanish are important to you.

Rating Scale:

0 = not important

1 = slightly important

2 = moderately important

3 = very important

I am taking Spanish because...

13. I want to use Spanish when I travel to a Spanish-speaking region.

0 1 2 3

14. I need to study a foreign language as a requirement for my major.

0 1 2 3

15. I want to be able to converse with Spanish speakers in the United States.

0 1 2 3

16. I am interested in Hispanic culture, history, or literature.

0 1 2 3

17. I feel that Spanish may be helpful in my future career.

0 1 2 3

18. I want to be able to use it with Spanish-speaking friends / acquaintances.

0 1 2 3

19. I need Spanish to fulfill the foreign language requirement.

0 1 2 3

20. I want to be able to speak more languages than just English.

0 1 2 3

21. I want to learn about another culture to understand the world better.
- 0 1 2 3
22. Spanish may make me a more qualified job candidate.
- 0 1 2 3
23. I think foreign language study is part of a well-rounded education.
- 0 1 2 3
24. I feel that Spanish is an important language in the world.
- 0 1 2 3
25. I feel that knowledge of Spanish will give me an edge in competing with others.
- 0 1 2 3
26. I want to communicate with native speakers of Spanish.
- 0 1 2 3

Notes

1. Research has found a positive relationship between motivation and different L2 achievement measures such as self-ratings of proficiency, objective tests, and course grades (Masgoret & Gardner, 2003). Few studies have investigated the relationship between motivation and global measures of L2 performance such as a SOPI or oral proficiency interview (OPI).

2. A different aspect of this investigation appeared in Hernández (2006) in which the relationship among three variables—integrative motivation, instrumental motivation, and the need to fulfill a foreign language requirement—and two measures of L2 achievement was studied.

3. A factor analysis was performed to test the validity of the questionnaire. The factor analysis yielded three factors with eigenvalues greater than 1.0. Eigen values were 6.525 for Factor 1 (integrative motivation), 1.696 for Factor 2 (instrumental motivation), and 1.260 for Factor 3 (FL requirement motivation). Cronbach alpha coefficients were computed on the questionnaire's three subscales to estimate the consistency of scores. The alpha coefficients were high, ranging from 0.85 to 0.90. See Hernández (2006) for further discussion of these statistical analyses.

4. The second part of the questionnaire was adapted from Ely (1986).

5. See the *ACTFL Proficiency Guidelines—Speaking. Revised 1999* (2006) for a complete description of the ACTFL proficiency scale.

6. See Hernández (2006) for a complete description of the results of the motivation questionnaire.

7. The SOPI was administered and scored with the assistance of the SOPI self-instructional training kit (Center for Applied Linguistics, 1995). The performance of each student on the SOPI was assigned a rating on the ACTFL proficiency scale. These ratings were then converted into numerical values for the purpose of data analysis: novice low = 1, novice mid = 2, novice high = 3, intermediate low = 4, intermediate mid = 5, intermediate high = 6, advanced low = 7, advanced mid = 8, advanced high = 9, and superior = 10. The numerical values assume that the ACTFL scale represents an interval scale with equal intervals between proficiency levels. See Hernández (2006) for a more complete description of the rating procedures.

8. The simultaneous multiple regression tables show: the Pearson correlation of the predictor with the outcome measure (r); the standardized regression coefficient (β); the t statistic showing the significance of the standardized regression coefficient (t); and the p value of the t statistic (p). Significance was set at the level of $p < 0.05$.

9. Responses on item 9 were coded as 0 if the student did not intend to continue Spanish and as 1 if the student intended to keep taking Spanish courses.

10. Responses on item 10 were coded as 0 if the student did not intend to major in Spanish and as 1 if the student intended to major in Spanish.

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Quantifying the Efficiency of a Translator

The Effect of Syntactical and Literal Written Translations on Language Comprehension using the Machine Translation System FALCon (Foreign Area Language Converter)

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Today, there are approximately 20,000 linguists with language training in either the Active Duty or Reserve components of the U.S. Army. Of those 20,000, half belong to the Military Intelligence branch (LaRocca 1). More than ever, the Army has increasing interest and need for accurate language translation especially with the Global War on Terror (GWOT). Coalition operations and U.S. presence in Iraq, Kuwait, and other areas in the Middle East require Arabic translation. Unfortunately, the Army has never been able to maintain the number of linguists it needs, particularly in the hard-to-fill, low-density languages (Dunn 1).

The U.S. Army operating on foreign soil in both peacekeeping and combat operations cannot afford to ignore the language barrier. In addition to communicating with the populace or gleaning intelligence from enemy documents, the Army is increasingly cooperating with coalition forces, which also introduces a variety of languages and thus other language barriers. To overcome this problem, the most obvious solution would seem hire more translators. However, there are disadvantages to this. For one, the quality of translations can be mixed; some translators may be better communicators than others. More importantly, hiring translators can be downright dangerous. Translators could be operating in conjunction with the enemy or be providing false information to that effect. To alleviate the burden of language translation, many are looking toward machine translation, as a means to augment linguists in theater.

Opponents of automated machine translation cite the multiple errors that occur and thus conclude that machine translation does not add significant benefits. Previous evaluations of machine translations usually rely on word error rate. Word error rate, designed to measure accuracy, is calculated by adding the number of insertions, deletions, or substitutions of words in one language to another language (LaRocca 1). Usually word error rate is determined using a computer program which calculates using the following equation, $\frac{n - (\text{number of errors})}{n}$, where n is the number of characters in the groundtruth file, and every character inserted, substituted, or deleted counts as an error since the translation is based on optical character recognition (OCR). Essentially, one computer application rates the accuracy of another, the machine translation.

The problem with this evaluation method is that it does not take into account human cognition or context. In other words, a machine translation might have a high word error rate but the user can still understand the “gist.” In short, past methods of evaluation do not consider user knowledge or experience. Machine translation systems should be

rated not in terms of their word error rate but in terms of human comprehension and usefulness, which is some function of word translation, syntax translation, and semantic interpretation. Where, semantics refers to the basic linguistic meaning of morphemes, words, phrases and sentences. In short, usefulness is a function of “gist” where “gist” is the human interpretation of the machine translated text.

The purpose of this study is to introduce a new method of evaluating human comprehension in the context of machine translation using a language translation program known as the FALCon (Forward Area Language Converter).

In the past, machine translation systems have been judged on their word error rate (number of substitutions, deletions, and insertions).

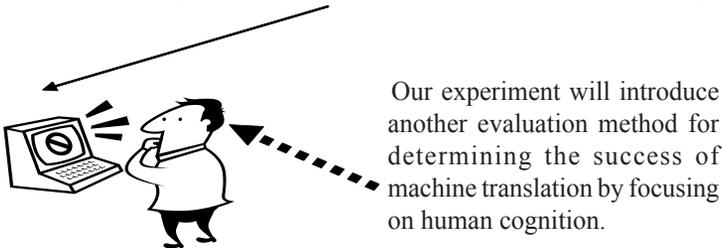


Figure 1

The FALCon works by converting documents into digital images via scanner, and then converting those images to electronic text by use of the Optical Character Recognition (OCR) (ARL, 2004). Foreign text is then converted to English using the Machine Translator (MT). In all, the FALCon can negotiate 61 languages, though some languages do not have OCR capacity and the quality of translation varies between languages. Semitic languages such as Arabic, tend to be the most challenging for machine language translators. An example translation of an Arabic passage by a human and a machine translator are provided:

Human Translation:

Army Major General Richard Zahner told reporters at the Combined Press Information Center in Baghdad, Iraq, September 27 that, as part of the Coalition’s strategy for success in Iraq, “We’re having to block the Shiite extremists from linking with Iran.”

Machine Translator (Cybertran) Translation:

informed the float/general in the military Richard ZANR thee correspondents from the station the information your joint in the capital the Iraqi Baghdad day 27 september current groan? “loss forced prevention the extremist/extreme Shiites from the attachment with Iran.”

The FALCon has two translation systems; Cybertran and Transphere. Cybertran negotiates text at the literal level while the Transphere attempts to incorporate syntactical meaning in its translations. Syntax refers to the rules of sentence formation; the component of the mental grammar that represents speakers' knowledge of the structure of phrases and sentences. For example, in Spanish, syntax includes a noun followed by an adjective: i.e. "*Tengo la camisa negra*" which taken literally in English means: "I have the shirt black" Cybertran would translate in this manner. However, Transphere would syntactically adjust that same sentence to: "I have the black shirt."

The National Institute of Standards for Technology (NIST) standard for testing competing machine translators may not be appropriate for measuring the ease and quality of reader comprehension. Cybertran leaves the reconstruction of a sentence and the context to the analyst, relying on the analysts' learned understanding of Arabic sentence form. Transphere attempts to incorporate syntactical rules into the translation. In this way, Transphere attempts to make the sentence structure more similar to the English language; however, it introduces random words into the process that decreases performance based on word error rate.

In addition to structure of language, readers also rely on schema to increase the understanding of text. Schemas help linguists understand the story structure (Braintree). Though literal translation is a priority for the reader, the coherent meaning constructed by the reader will often reflect a reader's prior experience. Recall protocols of foreign language students demonstrate that though students can often recognize words, they seriously misread or misconstrue their meaning within different contexts (Swaffar 123). The more familiar a linguist is with the structure of a language, the better they will be at grasping the "gist."

Others argue that machine translators have a poor reputation because people have the wrong expectations of what machine translators are capable of. They should be seen as a tool that can be used to assist in translating because "even if machine translation systems can never duplicate human translations, can't they at least generate output that is understandable and useful (Myers 2)?"

It is hypothesized that semantic machine translations (Transphere) will result in better reading comprehension as the reader begins to develop an implicit understanding of the sentence structure. A second hypothesis proposes that over time and with practice, the literal machine translation system (Cybertran) will produce a reading comprehension curve that increases over time while the semantic translation system will initially be higher due to its resemblance of the English language, but then over time, will level off because of the noise it introduces. This concept is illustrated in Figure 2.

Methodology

An experiment was conducted to compare the two proposed hypotheses and suggest an improved metric for evaluating a machine translation. The participants for this experiment included 48 freshmen from the United States Military Academy enrolled in the General Psychology course, PL100. Seven Arabic news documents were translated using the FALCon software, specifically the CyberTran and Transphere programs. The articles ranged in topics from reports on global terrorism to the weather. Participants were asked to read the machine translations of the seven Arabic documents and answer a series of corresponding comprehension questions.

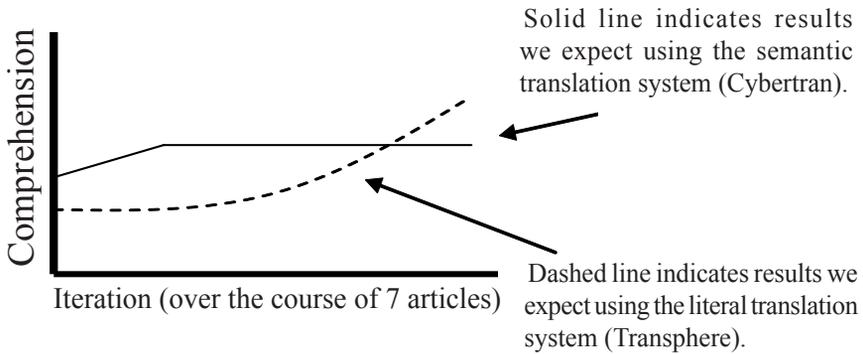


Figure 2. Illustration of Hypothesized Learning Curves for Machine Translators

This experiment was a between subjects design. The participants were equally divided into two groups. It is important to note that when using the FALCon program, this experiment used electronic mediums, thus eliminating the step involving the OCR (See Figure 3). The Arabic documents were the same for each group except for the type of translation used to convert them to English. Each group was exposed to a different condition; one group received the seven Arabic documents translated into English using the Transpere program. The second group received the documents translated into English using the Cybertran program. Each participant in both of these groups received the articles in a random order.

For each of the seven articles, the participants received a set of corresponding comprehension questions. The questions were the same for each participant, despite the condition. The participants were instructed to read and answer the comprehension questions to the best of their ability. Once they finished answering the questions, the participants were given the master English copy of the article so that they could compare this document to the translation produced by either the Transpere or Cybertran to see if they could better understand syntax, vocabulary, etc.

Each test for the seven articles was designed in the same format consisting of two multiple choice questions, one fill-in the blank question, one true/false question and a two-part question wherein subjects must re-structure a translated sentence from both the Transpere and Cybertran translators. The goal of putting the questions in a particular order was to gear the reader toward intelligence gathering and to see if he could grasp main concepts and details, and overtime (though not yet evaluated in this study), have him answer these kinds of questions without being prompted. The first question is always a main idea question, to gauge the reader's overall understanding and force him to think about the main concepts of the subject before he answers smaller questions. The second question was a detail within the article that was important to the overall article. This detail either asked for a key person or place within the article. The fill-in the blank question was another detail, but not as specific as the multiple choice question; it would ask for how often an occurrence happened or who a significant person was (based on position more than specific name). The true/false question was geared to be a little tricky to readers to see if they truly understood a broad concept of the article. The question would entail a detail that encompassed the overall significance of the article. For instance, one question read, "True or False: Each of these Iraqis thinks that the establishment of a government

will solve the problems in the country.” Listening to current press reports in general, most people would choose false, but those who read and understood this particular article would correctly answer true to this question, thus the question aids (but does not define) the assessment of one’s understanding of the article. The last two questions are meant to gauge which article would be more conducive to translation from “translator garb” to understandable English. This is done by asking the subjects to re-construct two sentences, one from each of the translators, into a coherent sentence. This last question really helps evaluate whether human understanding and interpretation can fill in the gaps of a poorly-written document by having the reader re-configure the sentence in their own words, while retaining the original meaning of the article. Each test received a score based on a 24 point scale; much like a teacher would grade a test for students. Each multiple choice and true/false question was worth 3 points, while each fill-in the blank and short answer question was worth 5 points. Partial credit was awarded to those answers that showed some valid comprehension of the material.

Analysis and Results

The initial and most important analysis sought to assess whether there was actual “learning” among subjects. If learning were present, the results would show an increase of correct responses over time. There was insufficient power to show statistically significant learning for overall test scores, however, it appears that for certain questions, correct responses may increase over time. The questions that showed an increase in correct responses over time were the ones which required specific answers, such as the multiple choice for detail, fill-in the blank, and true/false. Figure 3 shows the average scores for participants over the span of the test from the first article they were given to the last article for the specific-response type questions.

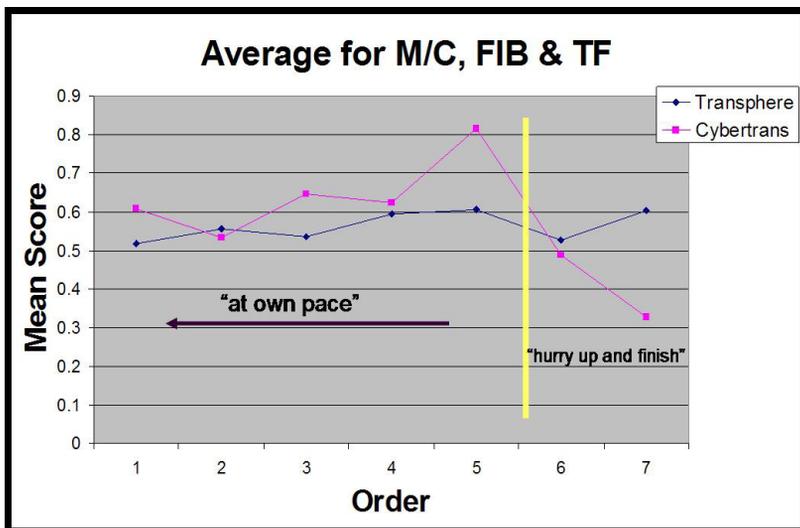


Figure 3. Average Test Score for Multiple Choice, Fill-in-the-Blank, and True/False Questions

The vertical line in Figure 3 separates the final two tests, wherein subjects had to rush to finish the test within the given time period. Until that time, the number of correct Cybertran responses was improving consistently, while the Transphere scores were rather steady. Cybertran’s word-for-word translations seemed to make picking out details within the article a simpler task for subjects than the Transphere’s translations. Showing even more evidence of the difference between the two types of translation is the graph of the multiple choice detail questions over time, as seen in Figure 4.

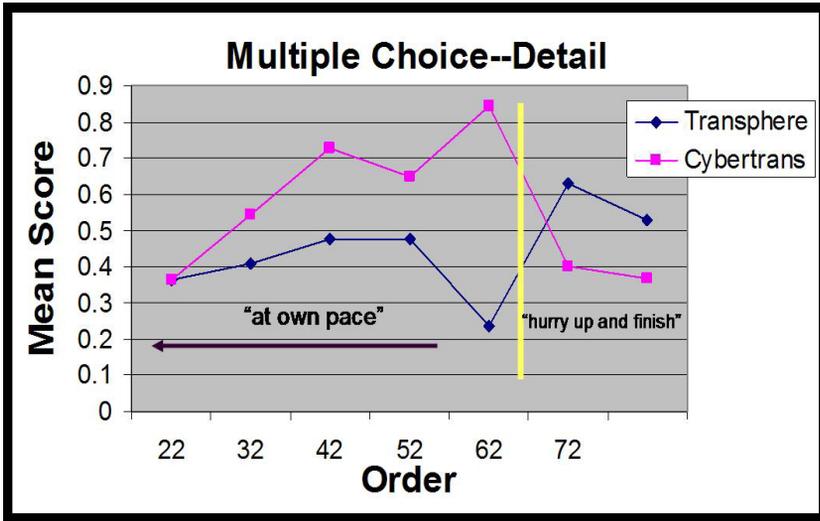


Figure 4. Average Test Score for Multiple Choice Detail Questions

While the two types of translations started at the same place for the first question, each question after that showed a steady rise in percent answered correctly for subjects reading the Cybertran translations. However, it is of note to mention that when answering in haste, the subjects reading Cybertran translations struggled, probably because they did not have time to look back in the article for key words. The Transphere most likely did better because it gives readers a better idea of the broad sense of the article, so they could still venture a good guess even when in a hurry.

The difference in overall scores for articles and for individual questions was also studied. There is more evidence supporting the strength each translator has in either the detail aspect or the broad idea aspect. For instance, Figure 5 depicts the difference in correct responses between each translator by questions asked.

Those questions for which Transphere translations prompted more correct responses were broad idea questions, which means that instead of asking for a particular person or fact, they ask for an idea or underlying concept. The two bars on the right of Figure 5 are the sentence re-structuring questions, and Transphere has done better on that as well. Subjects who read either type of machine translation found that restructuring the Transphere sentences was easier, although subjects who read only Transphere documents responded better to the Transphere re-structuring by 7.06 percent. Those subjects who only read Cybertran sentences only did better restructuring the Cybertran sentences by 0.93 percent than the Transphere readers.

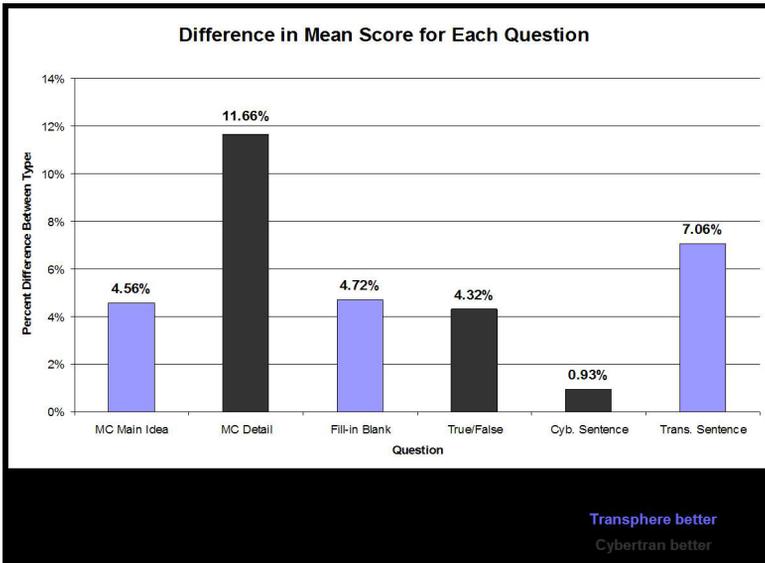


Figure 5. Difference in Mean Score for Each Question

Analysis of each article provides insight into types of articles and the capacity of understanding that each type affords its reader. Figure 6 displays the difference in average scores for the two translation types for each of the seven articles.

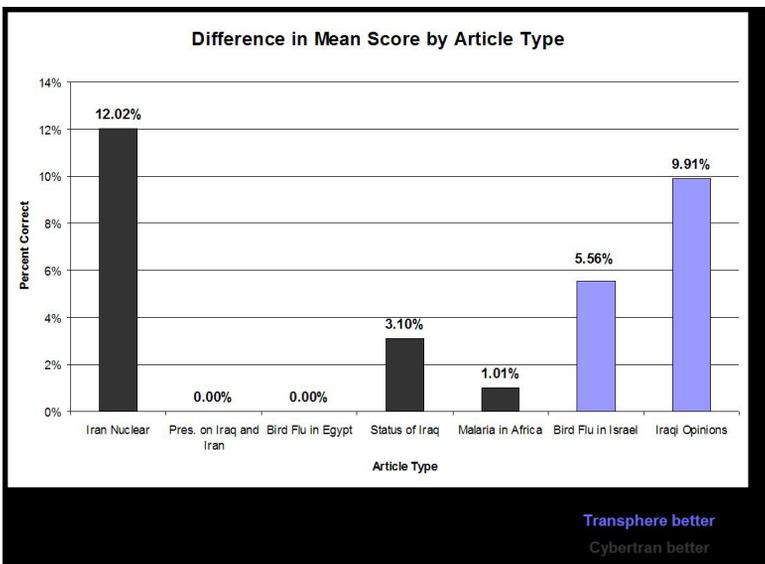


Figure 6. Difference in Mean Score for Each Article

It can be seen that those subjects who read the Cybertran translation of the article concerning Iran's nuclear intentions had a better average score by 12 percent. Meanwhile the subjects who read the Transphere version of an article on Iraqi opinions had a better average score by about 10 percent. Again, this difference is likely attributed to the content and technicality of the article. The Iran article contained more details, which are easier to pinpoint using the word-for-word Cybertran translation. The understanding of the Iran article is extremely dependent upon key actors, which are generally proper nouns, an aspect of translation wherein Cybertran outperforms Transphere. To understand the meaning of the "Iraqi Opinions" article, the reader would need to understand full concepts rather than small details, an aspect of translation that syntactical correction aids humans in doing. Since the Transphere translator uses these syntactical translations, more people understood the meaning of the "Iraqi Opinions" article using this type of translation.

Conclusion and Future Study

The results of this study have brought a few key points for consideration in Arabic machine translation. First, human understanding is not a factor to be ignored in gauging the usefulness of such translators. Secondly, the type of translation used can depend on the type of information needed, whether it is key people and places or the general plans or opinions. An even better method would combine the two types (probably through human interpretation) to have one complete translation with both key details and the right concepts. Combining the strengths of the two types is especially important in developing a training strategy to employ translators like the FALCON for intelligence gathering.

The benefits of the research for machine translators are expansive. Machine translators could be great tools for Army intelligence, that is, if humans could readily understand the texts. One of the biggest problems with Arabic machine translators is that the translated text still has to be sent to a linguistic expert for interpretation. If a soldier can be trained to interpret within a relatively short period of time, then the lengthy process of finding a linguist and sending and receiving a document can be eliminated, and articles can be processed and interpreted in a very short time by a member of the unit.

For further study, the learning factor requires further evaluation. Can people be trained to understand the machine translation better? If so, is one of the two types of translators easier to learn? To evaluate these questions, subjects could perform numerous test sessions over the period of a week or two instead of working for only an hour. During this time, subjects may slowly adapt to a different kind of test that would change from some multiple choice questions at the beginning to short answer and eventually to straight essay at the end, wherein they would attempt to touch on all the same key concepts from the first tests. If a person could obtain all the important information without being guided by questions, then that would truly test his understanding of the article and prove the translator's value to the intelligence community. To further assess the learning involved, the subject could be made aware of the exact rules that go into each translation type, and then be given the tests, instead of attempting the test without knowing anything about the type of translation they are reading.

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**Text Enhancement and the Acquisition of English Verbal Inflection -s
by L1 Haitian Creole Speakers**

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This article contributes to the growing body of research investigating the effects of drawing learner attention to the problematic aspects of the linguistic input in the context of meaning-focused instruction. One specific approach to concentrate learner attention on form in the written input is known as textual enhancement. The pilot study reported in this article addresses the role of text enhancement on the acquisition of the bound morpheme -s in the English third-person present indicative verb by adult L1 Haitian Creole speakers. Fifteen subjects participated in the study and were randomly divided into two enhanced treatment groups and a control one. The participants in the enhanced treatment groups read a passage orally while attending to visually enhanced learning targets. The target form was enlarged and boldfaced for the first treatment group and enlarged and colored red for the second treatment group. The control group completed the same treatment without enhancement. The results of the study indicate that textual enhancement promoted the subjects' awareness of the target form in reading. However, textual enhancement failed to facilitate the learners' oral production of the target form.

Accepting the central role of attention in learning as their foundation for research, recent Second Language Acquisition (SLA) empirical studies have explored different ways of directing learner attention to problematic aspects in the input. The bulk of this research has demonstrated the effectiveness of making specific forms in the input salient to draw learner attention to them with the aim of facilitating the integration of attention to form and meaning (Berne, 2000; Carroll & Swain, 1993; DeKeyser, 1995; Greenslade, Bouden, & Sanz, 1999; Jensen & Vinther, 2003; Sanz & Morgan-Short, 2004; Sharwood Smith, 1993; VanPatten & Cadierno, 1993). One specific approach to draw learners' attention to form in the written input is known as textual (typographical or visual) enhancement. This implicit and unobtrusive means of enhancement (Doughty & Williams, 2003) employs different techniques (e.g., the use of color, italics, boldface, etc.) to increase the perceptual salience of the problematic target forms embedded in the reading passage.

Several previous studies have demonstrated the facilitative effect of text enhancement on the development of learner interlanguage (IL) (e.g., Doughty, 1991; Jourdenais, Ota, Stauffer, Boyson, & Doughty, 1995; Leeman, Arteagoitia, Fridman, & Doughty, 1995; Shook, 1994; Williams, 1999). However, only one of these four studies has investigated variables and linguistic forms in L2 English (Doughty, 1991), and no studies,

to the best of the author's knowledge, have explored the way in which nonacademic adult learners can focus attention on form and meaning with the help of text enhancement. The paucity of the available research on the effects of text enhancement on the development of IL calls for further studies. Thus, the objective of the present study is to provide more insights into the role of text enhancement in the acquisition of the English verbal bound morpheme *-s* (3PS) by a population that, to date, has gone uninvestigated: adult L2 speakers of English with limited classroom experience who have been exposed to the target language over a long period of time and who have failed to acquire numerous linguistic features via naturalistic aural input.

Background

Attention in SLA

A general finding of current research in SLA and cognitive psychology is that attention plays a crucial role in mediating input and learning. Despite disagreement as to the amount and type of attention needed for acquisition to take place, agreement exists as to the importance of attention (Robinson, 1995; Schmidt, 1990, 1995, 2001; Tomlin & Villa, 1994). Furthermore, the growing body of research has demonstrated that a greater degree of attention to input promotes language learning (Jourdenais et al., 1995; Leeman et al., 1995; Rosa & O'Neill, 1999).

An empirical study that has had a significant impact on attention research in SLA is VanPatten's (1990). This study explored a key issue surrounding attention in SLA: whether or not L2 learners can simultaneously attend to form and meaning while processing input. The results of the experiment supported the initial hypothesis that attention to an important lexical item would not affect content comprehension, whereas attention to grammatico-morphological forms with little communicative meaning would negatively affect comprehension. Based on the results of his study, VanPatten suggested that communicatively laden items in the input receive learner attention and become available as intake for the developing language systems while grammatical morphemes of little meaning may be left unattended. VanPatten's findings also demonstrated that only when input was comprehended could learners attend to specific forms as part of the acquisition process. In other words, in the early stages of L2 acquisition, input is first processed for meaning via lexical forms, and, only after comprehension processing is automatized, additional attentional resources become available to focus on morphological forms.

Several studies replicated VanPatten's (1990) original design to explore the effect of input simplification (Berne, 2000) and to investigate the role of modality (Greenslade et al., 1999) on the acquisition of form and meaning. The results of these studies confirmed those of VanPatten's and supported the hypothesis that language learners experience difficulty while simultaneously focusing attention on form and content even when the input is modified in order to facilitate comprehensibility (Berne). Moreover, even in the written mode, attention to a grammatical item seems to adversely affect comprehension, whereas attention to a lexical item does not appear to have a significant negative impact on comprehension (Greenslade et al.).

On the other hand, in Wong's (2001) partial replication of VanPatten's (1990) original study which directly compared the written and aural modes within the same research design, only the results of the aural mode conditions mirrored those of VanPatten's:

comprehension was significantly inhibited by increased focus on the grammatical item while comprehension was not inhibited by an increased focus on the lexical item. In the written mode, however, attention to either the lexical item or the grammatical form did not have a detrimental effect on comprehension. The finding that simultaneous attention to form and meaning did not significantly impede reading comprehension contradicted the results found by Greenslade et al. (1999). As suggested by Wong, one possible reason for this difference was that learners had greater control over input in the written mode than they did in the aural mode. In other words, Wong believes that modality is a variable that influences the way in which learners process input.

Input Enhancement in SLA

The results of the studies discussed above have implications for the focus-on-form¹ research in SLA, which is intrinsically related to the present study. In line with Sharwood Smith (1993), input enhancement, an “attention-drawing” technique of making certain features of language input salient to learners, might assist learners to focus on, both, meaning and form. Moreover, according to Gass (1997), enhanced input is necessary to prevent the cessation of language development, especially when “learners reach a point where differences between their own learner systems and the target language are imperceptible” [to the learner] (p. 151). There is therefore a consensus among SLA researchers that increased noticing of formal aspects of the target language is beneficial to the learner and should be implemented as a supplement to naturalistic learning. It follows then, that, if the input can be manipulated in order to draw the learners’ attention to specific forms, this will be expected to facilitate learning.

There are many possible ways to manipulate and enhance the input. However, as Sharwood Smith (1991) warns, artificially induced noticing of a particular form might not necessarily result in the target form being incorporated into the developing IL: “although learners may notice the signals, the input may nevertheless be nonsalient to their learning mechanisms” (p. 121). In other words, certain forms may be more noticed than others, and some forms may be noticed perceptually but not linguistically. Leeman (2003) reinforces this warning by asserting that researchers who hypothesize that perceptual salience plays a role in language development “do not suggest that all salient forms are attended to by learners nor that learners attend only to salient forms, given that attention is assumed to depend on a wide range of factors including task conditions, learner readiness, and individual idiosyncrasies” (p. 42).

Nevertheless, there is some empirical evidence that shows that salient forms are more likely to be attended to by learners than nonsalient forms (Barcoft & VanPatten, 1997; Rosa & O’Neill, 1999). In terms of development, saliency has been proposed as an explanation for order of morpheme acquisition both in the L1 and L2 (Brown, 1973; Goldschneider & DeKeyser, 2001). Accordingly, to establish effective means of focus on form has been an important objective of recent SLA research. Of particular interest to the design of the present study are prior empirical attempts to increase perceptual saliency via manipulation of typographical conventions.

The results of several previous studies on the direct effect of textual enhancement in SLA (Doughty, 1991; Jourdenais et al., 1995; Leeman et al., 1995; Shook, 1994; Williams, 1999) have demonstrated that enhancement techniques are beneficial to instruction since they integrate attention to form with attention to meaning. However, some studies have shown limited or no significant effect at all (Alanen, 1995; Izumi,

2002; Leow, 1997; Robinson, 1997; White, 1998), while still others have revealed negative effects of text enhancement on the subjects' comprehension of texts (Overstreet, 1998). Due to the fact that input enhancement research, and text enhancement studies in particular, have produced mixed results, it is suggested that text enhancement cannot be expected to have the same impact on all types of forms and on all learners.

All previous text enhancement studies have focused on instructed SLA and most of them have explored the effect of text enhancement in L2 Spanish (Jourdenais, 1998; Jourdenais et al., 1995; Leeman et al., 1995; Leow, 1997; Overstreet, 1998; Shook, 1994) with only four known studies that have investigated the variables and linguistic forms in L2 English (Doughty, 1991; Izumi, 2002; Robinson, 1997; White, 1998). Lacking in this line of research is the investigation of the effects of text enhancement on IL development of adult² L2 learners who have been exposed to the target language over a long period of time and have failed to acquire certain grammatical forms via naturalistic aural input. It is specifically to this kind of research that the current study seeks to contribute.

The Present Study

Research Question

The purpose of the present study was to address the following question:

Can typographically enhanced input of the bound communicatively ineffective morpheme -s in the English third-person present indicative verb facilitate the acquisition of this form by adult L1 Haitian Creole speakers?

Hypothesis

Based on the mixed findings of previous studies, the following null hypothesis was formulated with an aim to investigate the effect of text enhancement: *There will be no difference in the recognition and production of the target form by learners who receive enhanced input and learners who receive unenhanced input.*

Method

Participants

The participants for this study were 15 adult L1 Haitian Creole speakers (five males and 10 females) who understand and speak English at a basic communication level and read and write at a minimal level. The primary criterion in selecting the participants was that they have limited or no formal education. Twelve of the participants were former or current students of the ESL literacy program at Catholic Charities Archdiocese of New Orleans. Starting in 1996, the program has aimed at developing basic reading and writing skills in English for Haitian refugees whose goal is to pass the BCIS (former INS) test and become U.S. citizens. Seven of the respondents who participated in this study exited the program at different times while two were still enrolled in the program at the time of this study. The other six respondents reported attending different adult ESL programs upon arrival to the United States. All participants stated having regular contact with native speakers of English and using English at work and while shopping. They also stated that they use Haitian Creole at home, in church, and with friends. Information regarding the age of the participants at the time of the study, length of residency in the US, and years of schooling is presented in Table 1.

Table 1. Summary of the Participants' Biographical Data

Measure	Age	Length of Residency	Education:	
			Haiti	United States
Mean	47.3	19.6	4.07	4.2
Median	46.0	22.0	5.00	4.0
Minimum	40.0	11.0	1.00	2.0
Maximum	56.0	24.0	7.00	6.0

Note: Reported education in Haiti and in the US was approximated by the subjects themselves. Recorded in years, the figures do not provide reliable data since their education in Haiti was never regular or continual. Likewise, their education in the US was limited to irregular attendance at different adult ESL programs.

Target Form

The form in focus was the English third-person present indicative verb morpheme *-s* (3PS), which was chosen for several reasons. Most generally, the acquisition of this perceptually salient, semantically complex, and morphologically irregular grammatical morpheme (Goldschneider & DeKeyser, 2001) has been studied extensively by a number of researchers working on both L1 and L2 acquisition (for a relevant discussion, see Zobl & Liceras, 1994). These studies have provided a rich source of information as to the order of the acquisition of 3PS and the processing problems that learners face in producing this form.

More specifically, the form in focus has long been a contentious topic because of its form-function complexity. Some researchers claim that 3PS is a formally simple and easy to learn form (Bialystok, 1979; Green & Hecht, 1992; Krashen, 1982), while others define it as a formally complex form and problematic to acquire (DeKeyser, 2003). According to Ellis (1990), this bound inflectional morpheme is formally complex but eventually learnable (when the learner is developmentally ready for it). Although Krashen and Ellis seem to agree that 3PS is functionally simple, DeKeyser argues “its form-function relationship is far from transparent, because one morpheme expresses several semantic concepts at the same time (present tense, third person, singular number)” (p. 44).

There is evidence (e.g., Haznedar, 2001; Ionin & Wexler, 2002) that beginning L2 English learners omit 3PS both in oral and written production. At the same time, L2 learners often overgeneralize and utilize this form inappropriately with any subject rather than third-person singular, which suggests that *-s* omission is not purely phonological in nature (Ionin & Wexler). Failure to assign this verbal morpheme accurately does not result in loss of meaning since 3PS does not serve any communicative function. Thus, this form is difficult to acquire and learners might need to be encouraged to notice it by means of techniques that are based on increased saliency rather than on increased frequency. According to Doughty & Williams (2003), “for forms that are frequent in the input and yet still seem to lack salience for learners, it may be that other means are

required to induce learners to notice” (p. 220). The researchers suggest input enhancement techniques as beneficial for the acquisition of this frequent but semantically redundant grammatical form.

Therefore, this study explores whether or not textual enhancement will assist L2 learners to simultaneously attend to meaning and the bound communicatively ineffective verbal morpheme *-s* since there is no research available on the potential facilitative role of this kind of instructional intervention on the acquisition of this target form.

Procedure

The study employed a pretest/post-test/delayed post-test design. Each test consisted of three tasks: (1) a grammaticality judgment task, (2) a reading task, and (3) a picture description task. The aim of these tasks was to determine the extent to which the participants could recognize and articulate the target form while reading and whether or not they could utilize it while speaking.

The pretest was administered immediately prior to the treatment, the first post-test immediately following the treatment, and the delayed post-test one week later. To avoid test effects and to provide a highly controlled instrument by which to compare participants, two balanced test versions (A and B) of each task were designed specifically for this study and administered in two sequences: ABA or BAB. Each session was audio-recorded and later transcribed and coded by the researcher. To ensure the reliability of the transcription, two native English speakers verified the transcripts.

The study involved three treatments: (1) textually enhanced target form by enlargement and coloring red; (2) textually enhanced target form by enlargement and boldfacing; (3) unenhanced target form. The type of enhancement was varied for the two enhanced groups to see whether the effects of different types of enhancement would change the results. The participants were randomly assigned to one of the groups, which will be henceforth referred to as Red, Bold, and Control, respectively. The researcher provided instructions to guide the subjects throughout the tasks in each session of the study: pretest, treatment, post-test, and delayed post-test. An overview of the study design with the distribution of subjects by groups is provided in Table 2.

Table 2. Study Design by Groups and Subjects Distribution

	<i>Red</i> N=5		<i>Bold</i> N=5		<i>Control</i> N=5	
Pretest	A <i>n</i> =3	B <i>n</i> =2	A <i>n</i> =2	B <i>n</i> =3	A <i>n</i> =3	B <i>n</i> =2
Post-test	B <i>n</i> =3	A <i>n</i> =2	B <i>n</i> =2	A <i>n</i> =3	B <i>n</i> =3	A <i>n</i> =2
Delayed post-test	A <i>n</i> =3	B <i>n</i> =2	A <i>n</i> =2	B <i>n</i> =3	A <i>n</i> =3	B <i>n</i> =2

Instruments

The Grammaticality Judgment Task (GJT)

The purpose of this task was to identify the subjects' awareness of the target form. The GJT consisted of 16 declarative sentences with lexical verbs, 10 of which were taken from the treatment task—five were grammatically correct items while the other five contained an error in the target form. In order to minimize any priming effect due to the association of the target form with the experiment, the task contained six distractors. The distractors consisted of three items with the copula (two incorrect and one correct) and three items with thematic verbs requiring the past tense inflection *-ed* (two correct and one incorrect). The participants were asked to judge the acceptability of the sentences: to put a mark in the space provided to identify grammatically correct (mark *Yes*) or incorrect (mark *No*) sentences (see Appendix A). If the sentence was judged unacceptable, the subjects were required to underline or circle the potential error and correct it if they could.

The Reading Task (RT)

The reading task measure consisted of participants' reading aloud a 288-word passage adopted from Jablon and Vacco's (2003) beginning-level adult ESL reading book. The passage contained 15 verbs with the target form and 15 distractors that did not require the target form (see Appendix B). The original text was modified to increase the number of target items, to add distractors, and to keep the story cohesive and comprehensible. The purpose of this task was only to determine whether or not the subjects could attend to and articulate the target form in oral reading. Reading comprehension variable was purposefully excluded from the study design since, according to Birch (2002), oral reading is less efficient and natural than silent reading, difficult and stressful, and not useful for testing reading comprehension. Moreover, oral reading requires more processing work, effort, and attention than other kinds of reading (Chall, 1983).

On the other hand, according to Saenger (1991), oral reading plays a prominent role in facilitating the early adaptation of beginning readers to silent reading. Reading research confirms that when beginning readers are forced to read silently, many of them encounter difficulties in comprehension (Birch, 2002; Saenger). Thus, oralization aids these readers in the process of reconstructing words from their phonetic components. In addition, according to Smith (2004), the beginning of the 20th century trend of placing oral reading long after silent is currently "in reverse" (p. 166). Consequently, the choice for this task was motivated by the fact that the participants of this study were beginning readers who preferred oral to silent reading and who do not consider oral reading unnatural.

The Picture Description Task (PDT)

The picture description task used in the study was developed to provide a context for the oral production of the target form. The PDT was administered after the RT and consisted of a set of 10 thematically related pictures. A person in each picture (a female for Version A and a male for Version B) was involved in some sort of everyday activities.

Each picture was labeled with a number and the oral elicitation procedure consisted of asking the participants to describe what the person in the picture does every Sunday. To focus the participants on the use of the present simple tense, the beginning of the first sentence (e.g., *Every Sunday, Bill*) was provided in writing.

Treatment

The treatment consisted of a 291-word passage adapted from Gianola's (2000) beginning-level adult ESL reading book. The passage was followed by 10 *wh*-type questions based on the content. The beginning of each answer that included a lexical verb with the 3PS (enhanced for the enhanced groups and unenhanced for the control group) was provided in writing to reinforce the target form usage.

The treatment was organized as follows: (1) the Red group were given the text (14 point font) with the enlarged (16 point) red target form embedded in the input; (2) the Bold group were given the same text with the enlarged (16 point) bold-faced target form embedded in the input; and (3) the Control group received the text without any enhancement (see Appendix C for a sample of the Bold group treatment task). Consequently, the only difference between the materials in the two enhanced treatments and the control treatment was that those in the Bold and Red groups contained enhancements intended to draw participants' attention to the perceptually salient target structure while the control group treatment contained no enhancement.

The goals of the task, as conveyed to each participant at the beginning of the treatment were (a) to read and comprehend the text and (b) to demonstrate comprehension by answering questions orally and in writing. The enhanced groups participants were instructed to read the text orally and to answer the questions based on the content of the text while paying attention to the enlarged red letters (Red group) or the enlarged bold-faced letters (Bold group). The Control group participants were instructed to read the text orally and to answer the questions based on the text. All respondents answered the questions orally and later wrote down their answers. They were allowed to consult the text while writing down the answers.

In sum, the instruments contained a total of 28 different lexical verbs with the 3PS (including 10 possible choices in the PDT) and a total of 32 verbs with the target form—including 15 novel verbs—were used in the treatment. To avoid the vowel insertion rule, neither the testing instruments nor the treatment materials included verbs ending in sibilant sounds. The distribution of verbs for each task and the treatment is summarized in Table 3.

Table 3. Verb Distribution by Tasks (Grammatically Judgement, Reading, Picture Description) and Treatment

<i>Grammatically judgement</i>	<i>Reading</i>	<i>Picture description</i>	<i>Treatment</i>	
			<i>Total verbs</i>	
			<i>Used in tasks</i>	<i>Novel</i>
delivers	arrives	calls	arrives	asks
drives	drinks	drinks tea/coffee	calls	buys
gets	eats	eats	delivers	checks
goes	gets	gets/wakes up	drives	comes
likes	goes	goes to church	eats	gives
puts	hurries	makes tea/coffee	gets	helps
says	likes	plays	goes	hugs
sorts	listens	reads	hurries	invites
wakes	lives	sleeps	likes	meets
walks	*plays	takes a bath/shower	plays	parks
	reads		puts	returns
	*spends		reads	sits
	swims		says	tells
	takes		sorts	turns off
	works		spends	wears
			wakes	
			walks	

Note: Verbs with asterisks in the reading task were excluded from the count

Data Collection

Both testing and treatment sessions were carried out individually for each participant and audio-recorded with a digital voice recorder DS-330. For the duration of each session, the noise level was minimal and did not interfere with the participants' ability to concentrate. During the transcription of the data, no information was obscured due to any acoustic interference.

The pretest, treatment, and immediate post-test were administered in a single session lasting approximately one hour and 30 minutes. Neither testing nor treatment sessions were timed which allowed each participant to work at his/her own pace and to

avoid stress. Each participant returned one week later to complete the delayed post-test. Improvement from the pretest to the immediate post-test and from the pretest to the delayed post-test on the 3PS usage was compared among the subjects who were exposed to the target form and received the enhanced treatment and those who received the same treatment without textual enhancement.

Data Analysis

Each task had a separate scoring procedure. For Task 1, the GJT, which consisted of 10 sentences, not considering the distractors, each correct response received a score of one point for a possible total of 10 points. That is, if a sentence was correct and was judged so by the subjects, it received one point, and if an ungrammatical sentence was deemed correct, it received no points. In addition, if an ungrammatical sentence was marked incorrect, one point was awarded only when the incorrect target item was circled or underlined. If an ungrammatical sentence was marked as incorrect, but an item other than the target form was identified, the sentence received zero points given that this would suggest that the subject was basing his/her decision on some criterion other than the 3PS agreement.

As for Task 2, the RT, the participants received one point for each of the verbs pronounced with the 3PS. When the verb was pronounced without the inflection, the subjects received zero points. A total of 15 verbs with the target form were imbedded in both versions of the task. However, while analyzing the results, the researcher realized that two verbs in Version B and one verb in Version A had ambiguous phonological contexts (e.g., *spends some time*) and had to be excluded from final statistical analysis. Thus, a possible total of 14 points in version A and a possible total of 13 points in version B were available for this task.

To measure the oral production of the target form in Task 3, the PDT, each participant's scores were computed by tallying the number of correct instances of the target form usage.

Results

The Grammaticality Judgment Task. For the GJT, data analysis revealed that the overwhelming tendency of participants in all groups was to judge both grammatically correct and incorrect sentences as correct. Of the 15 subjects, five marked all sentences as correct, while 10 subjects marked several items as incorrect with none of them referring to the target form. That is, when they marked sentences as incorrect, the error identified was other than the presence or absence of the 3PS. It thus became clear that there was no satisfactory means by which to determine whether or not the participants had used the agreement inflection to judge those sentences, which they did accept.

Participants' lack of experience with this type of task and/or random guessing strategy may have affected the results. It seems that, as long as the participants were able to extract meaning from all 16 sentences (including the distractors), they judged them as correct. For this reason, the data obtained for the GJT were excluded from statistical analysis.

The Picture Description Task. Also excluded from statistical analysis were the results obtained from the PDT. Of the 450 possible verbs—30 for each subject—only seven high frequency verbs (*goes, eats, drinks, gets up, reads, talks, and takes*) were pronounced with the target form by a total of four subjects. It is possible that the subjects have internalized each item as one unit without treating the 3PS as a separate morpheme—similar to L1 English acquiring children who internalize irregular verbal and plural noun forms during the early stages of L1 acquisition. As proposed by Beck (1998), an analogous process may be involved for L2 learners, particularly for those in naturalistic settings, which might explain the infrequent usage (1.56%) of the target form by some of the participants in the present study.

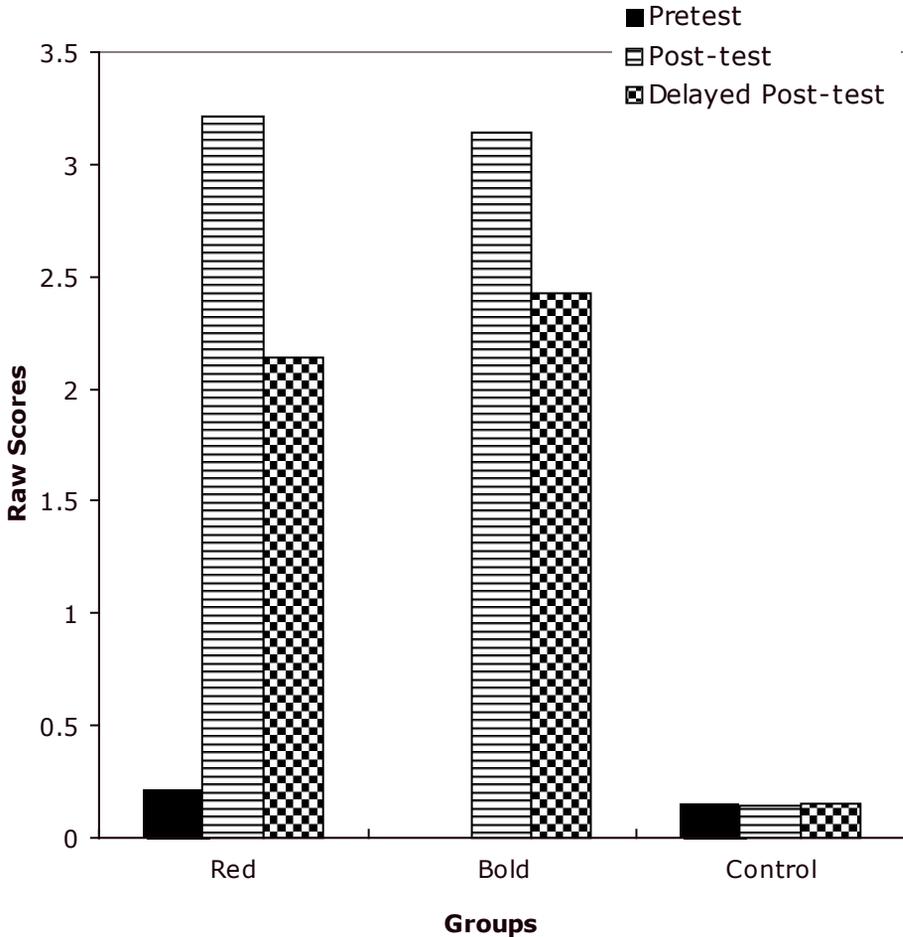
The Reading Task. To assess the relative effects of the three treatment conditions, raw scores from each reading task were submitted to one-way analyses of variance (ANOVA) with repeated measures design. When ANOVAs revealed significant between-group differences, posthoc Tukey’s HSD procedures were carried out to locate the source of these differences and the alpha level was set at .05. The means and standard deviations of each group’s raw scores are presented in Table 4 and graphically displayed in Figure 1.

Table 4. Means and Standard Deviations of the Pretest, Post-test, and Delayed Post-test Scores by Groups

<i>Group</i>	<i>n</i>	<i>Pretest</i>		<i>Post-test</i>		<i>Delayed post-test</i>	
		M	SD	M	SD	M	SD
Red	5	.214	.579	*3.21	2.04	*2.14	1.35
Bold	5	.000	.000	*3.14	1.88	*2.43	1.87
Control	5	.154	.376	.143	.363	.154	.376

* *The mean difference is significant at the .05 level.*

Figure 1.
Mean Scores on the Reading Task by Groups



The ANOVAs performed on pretest scores revealed no differences among the groups before instruction ($F_{2,38} = 1.070, p = .353$). Consequently, it can be said that any post-test statistically significant differences found among the groups are attributed to an effect of the experimental treatment, and that all three groups were equal in terms of their usage of the 3PS before the experimental treatment started.

Repeated measures ANOVA demonstrated statistically significant differences among the means of the pretest, post-test, and delayed post-test for each of the two enhanced treatment groups (Red group: $F_{2,39} = 15.31, p = .000$; Bold group: $F_{2,38} = 15.11, p = .000$). There was no difference among the means in the Control group ($F_{2,37} = .875, p = .425$). Statistically significant differences were also found among the three groups on post-test ($F_{2,39} = 16.48, p = .000$) and delayed post-test ($F_{2,38} = 10.98, p = .000$). Post hoc Tukey HSD analysis showed statistically significant differences for each of the enhanced

groups between the pretest and post-test ($p < .01$) and pretest and delayed post-test ($p < .01$). Post hoc analyses also showed statistically significant differences on post-test between the Red and Control groups ($F = p < .01$) and between the Bold and Control groups ($F = p < .01$) and on delayed post-test between the Red and Control groups ($p < .01$) and the Bold and Control groups ($p < .01$).

In addition, there were no differences between the two enhanced groups either at post-test ($F_{1,26} = .009, p = .92$) or at delayed post-test ($F_{1,26} = .215, p = .647$). In other words, both textually enhanced treatments were superior to the unenhanced treatment. Furthermore, post hoc analysis showed no post-test-to-delayed post-test difference for the two enhanced groups (Red group: $F_{1,26} = 2.69, p = .114$; Bold group: $F_{1,26} = 1; p = .32$) revealing no deterioration of the acquired knowledge.

In sum, the fact that the enhanced groups significantly outperformed the control group on the immediate post-test and on the delayed post-test reading task suggests that textually enhanced input can promote greater noticing of the target form than input with unenhanced positive evidence.

Discussion

At the beginning of this experiment, this paper hypothesized that there would be no difference in the recognition and production of the target form by learners who received enhanced input and learners who received unenhanced input. The results of the experiment demonstrated a clear-cut difference in the results of the reading task between control and enhanced groups which seems to suggest that textual enhancement had an effect on the learners' noticing, recognizing, and articulating the 3PS in oral reading. At the same time, textual enhancement had no effect on the learners' elicited oral production of this target form.

These results comply with findings by other researchers (Gass, 1997; Leeman, 2003; Sharwood Smith, 1991) who claim that perceptual salience does play a role in language development but who suggest that learners do not pay attention to all salient forms and that there is no guarantee that all L2 learners will internalize enhanced input since attention is assumed to depend on a wide range of factors including the target forms themselves, learners' prior knowledge, and individual idiosyncrasies, among others. In other words, a combination of different factors might have affected the way in which the current study participants processed the enhanced input.

One of the factors that might have prevented the participants from noticing the mismatch between the L2 manifestation of agreement and their own L2 output could be L1 interference. Even though L1 is viewed as the critical basis for L2 learning, it is still regarded as one of the sources of confusion for language learners (Goldschneider & DeKeyser, 2001). In Haitian Creole, the verb in a tensed clause is invariant and always occurs in its simple form. Moreover, there are no subject-verb agreement markers for person or for number, and no affixes encoding tense, mood, or aspect. Temporal relationships, mood, and aspect are encoded by means of markers occurring between the subject and the verb (Lefebvre, 1998). Since this study controls for L1 (all participants are speakers of HC), L1 interference may be one of the factors to account for the difficulties the participants had with the target feature.

Methodological Limitations and Caveats of the Study

The present investigation was constrained by a number of methodological limitations. First, the results and conclusions of this study were based on a limited sample of subjects; therefore, any generalizations about the findings from the study must be made with caution and are in need of further confirmation.

Second, the advantages of limiting data collection to a homogenous L1 population and conducting one-on-one testing and treatment in non-classroom environment were offset by the potential disadvantage that the effects of instruction were not tested beyond a one-week period. Thus, any claims about a truly long-term effect of instruction are relatively weakened. It would have been ideal to test the subjects knowledge of 3PS over a longer period of time.

Third, the treatment was very short, consisting of one intense session. Considering that SLA is a very slow and laborious process (Ellis, 1993), brief classroom exposure to the targeted linguistic elements may not be adequate to induce the desired effects.

Another limitation of this study is that learners were only exposed to affirmative constructions and not to full range of 3PS phonological environment (only regular verbs in the indicative mood were used while copula *is*, irregular *has* and *does*, and verbs ending in sibilant sounds were not included in either treatment or instruments implemented in the experiment).

Several studies in L2 phonology (Dickerson, 1975; Kato, Adamson, Unenaka, Stauffer, & Chu, 1999/2000; Young, 1991) have demonstrated that linguistic environment has a major effect on the production of /z/ and /s/ in Japanese-English and Chinese-English IL in that sibilants preceding *s* seem to be the most unfavorable phonological environment for plural marking, while both preceding and following vowels favor *s*-marking. In addition, Long (2003) who briefly reports on his 16-year study of Ayako, a Japanese woman who immigrated to Hawaii in 1948 when she was only twenty-two, also suggests that phonological reasons can partly account for Ayako's varied plural *s*-marking in obligatory contexts in free conversation: nouns ending with /t/ or /d/ tended to be *s*-marked, while nouns ending with sibilants were lacking *s*-marking. Thus, phonological environment of the production data is another issue that has not been explored in the current study and needs further investigation. It is possible that had the learners been exposed to all possible usages of the target features, they might have been able to observe the pattern more clearly. In addition, the only production mode investigated in this research was oral. Written production data may yield different results regarding 3PS and should certainly be examined.

Implications for L2 Pedagogy

The results of the current study are consistent with the claim that formal instruction has positive effects on SLA processes (Long, 1983; Norris & Ortega, 2000; Pienemann, 1989). Moreover, this study agrees with previous research on FonF instruction and provides additional empirical evidence to demonstrate that it is beneficial for L2 learners. Since a common concern in the classroom is to identify among various types of FonF instruction the ones that are of potential value in promoting SLA, the finding that

enhancing a grammatical feature that learners need to learn aided noticing suggests that this technique can be explored in the classroom to draw learner attention to problematic target features. Given that not all forms are equal in terms of the applicability and effectiveness of FonF instruction (Williams & Evans, 1998) and since the natural order of developmental sequences of L2 acquisition cannot be changed by instruction (Pienemann, 1984), any formal instruction (implicit or explicit) is irrelevant unless the learners are at the right stage of IL development. At the same time, research has demonstrated that instruction can improve the speed and frequency of the acquisition of grammar-instructed forms and that instruction is important in order to avert fossilization of simplified forms in the learner's IL (Pienemann, 1984, 1987, 1989). Thus, the choice of instructional intervention should take into account the differing circumstances under which SLA takes place, namely the learner population, the learning context, the learners' L1, and the linguistic feature, all of which may affect decisions regarding the type of instruction.

The results of the present study suggest that language teachers would benefit from a better understanding of untutored adult SLA processes. The more language teachers and curriculum developers understand the processes, learning constraints, and learning universals that accompany untutored adult second language acquisition, the more insightful and learner-centered their classroom instruction and materials can become.

Conclusion

The findings reported here are highly suggestive of the role of attention and saliency in L2 oral reading, given that the groups exposed to input with enhanced saliency demonstrated significant advantages over the group exposed to unenhanced input in reading tasks. Even though comprehension was not measured, the participants demonstrated their understanding of the text by using proper paralinguistic cues while reading (pauses, intonation) and personal comments upon completion of the task (e.g., *Very nice story*). Attention to form did not seem to interfere with comprehension as suggested by VanPatten (1990) and Berne (2000). Although this claim cannot be confirmed since comprehension was not measured, this study raises questions about potential effects of textual enhancement on forms of limited communicative value in reading tasks and has implications in L2 reading research.

In contrast, even though the participants seemed to notice the form in reading, the input remained nonsalient to their learning mechanisms which, in line with Sharwood Smith (1991) and Leeman (2003), demonstrates that the form may be noticed perceptually, but not linguistically. Therefore, the results of the study raise the question as to whether textual enhancement as a type of focus-on-form technique can assist learners in acquiring L2 morphological features and linking them to the corresponding functional categories – the linguistic phenomena which does not exist in their L1s and which they did not acquire in naturalistic environment over a long period of exposure to the target language. In order to determine the nature of the IL representation of L1 Haitian Creole speakers, further research is needed in both morphological and syntactic domains with more subjects, more treatment sessions, and more dependant variables to explore.

**Appendix A: The Grammaticality Judgment Task
Pretest/Post-test B**

Read the following sentences.

*Check **Yes** if the sentence is grammatically correct.*

*Check **No** if the sentence has a mistake.*

Circle or underline what you think is wrong in the sentence. Do not mark anything if everything in the sentence is correct.

		Yes	No
1.	Bill is a very good cab driver.	_____	_____
2.	Then Ernie get into his mail truck.	_____	_____
3.	Jane learn Spanish in high school ten years ago.	_____	_____
4.	Every morning Ernie wakes up at 6:00.	_____	_____
5.	Mr. Johnson pick up a blue tie last Sunday.	_____	_____
6.	Ernie like to walk.	_____	_____
7.	He delivers letters and packages to houses and apartments.	_____	_____
8.	Mike and Jane is happy today.	_____	_____
9.	Mr. Wong says, "Ernie, please, don't give me any bills."	_____	_____
10.	My friend visited New Orleans last year.	_____	_____
11.	Then Ernie goes to the post office at 7:00 a.m.	_____	_____
12.	Ann are from another country.	_____	_____
13.	He drives to the neighborhood on his route.	_____	_____

14. He walk around the neighborhood. _____
15. At the post office, he sorts mail for the customers in his area. _____
16. He put a heavy brown mailbag on his shoulder. _____

**Appendix B: The Reading Task
Pretest/Post-test A**

Read the story out loud.

In New Orleans

Barbara Brown lives in New Orleans. She is a secretary at the City Bank. She works every day from nine to five. Her house is a long way from her job, and she always takes the bus to work. She goes to the bus stop at 8:30 and the bus arrives in five minutes. She gets to the bank in only ten minutes. Barbara is never late for work.

Barbara eats late lunch at 2:00 p.m. She likes to eat a turkey sandwich or a chicken salad for lunch. She also drinks a cup of coffee. After lunch she hurries back to work.

After work, she spends some time with her friends. She plays tennis or basketball. Sometimes, she swims in the pool. In the evening, when she is back home, Barbara reads her favorite magazines and listens to music.

Sam and Anne Green live in New Orleans too. They are tellers at the City Bank. They also work every day from nine to five. Their house is a long way from their job, and they always take the bus to work. They go to the bus stop at 8:30 and they arrive to the bank in ten minutes. They get to the office before 9:00 a.m. They are always on time for work.

Sam and Anne eat late lunch at 2:00 p.m. They like to eat a turkey sandwich or a chicken salad for lunch. They also drink coffee or tea. After lunch they hurry back to work.

After work, they spend some time with their friends. They play tennis or basketball. Sometimes, they swim in the pool. In the evening, when they are back home, Sam and Anne read their favorite magazines and listen to music.

Appendix C: Treatment (Bold)

Name _____

Date: _____

Read the following story out loud. Pay attention to the **BOLD-FACED** letters.



LETTERS

Ernie Basko is a U.S. mail carrier. He like**S** his job very much. Every morning Ernie wake**S** up at 6:00 and eat**S** a quick breakfast. He goe**S** to the post office after breakfast. He wear**S** his blue and gray uniform to work every day.

When he arrive**S** at the post office, he sort**S** mail for the customers in his area. Then Ernie get**S** into his mail truck and drive**S** to the neighborhood on his route. He park**S** his truck in a shady place, put**S** a heavy brown mailbag on his shoulder, and walk**S** around the neighborhood. Ernie deliver**S** letters and packages to houses and apartments.

Ernie is a very friendly person, and people are happy to see him. Mrs. Perez ask**S**, "Do you have a check for me today, Ernie?" Mr. Wong, say**S**, "Ernie, please, don't give me any bills."

Dogs are the only problem for Ernie. They bark at him. Sometimes, they chase him. Ernie is happy when the working day is over. At 5:00 p.m. he hurrie**S** home.

When he come**S** home, Ernie hug**S** his wife and kids and sit**S** down for dinner. After dinner, he help**S** his wife to clean the kitchen, play**S** with his children and read**S** the newspaper. Every Friday, he call**S** his friend Jimmy and invite**S** him to the nearby coffee shop for a cup of coffee.

Appendix C (cont.)

Name _____

Date: _____

He meets**S** Jimmy at his favorite coffee shop around the corner. Usually, Ernie buy**S** Jimmy a cup of coffee and tell**S** him about his work, family, and friends. When Ernie return**S** home, he give**S** his wife a kiss, check**S** that the children are in bed, turn**S** off the light in their room, and spend**S** the rest of the evening with his wife in front of the TV.

Read the questions. Finish answering each question. Pay attention to the **BOLD-FACED** letters.

1. Does Ernie like his job?
Yes, he like**S** _____.
2. What time does Ernie wake up every morning?
He wake**S** up _____.
3. Where does he go in the morning?
He go**S** to _____.
4. What does he wear to work?
He wear**S** _____.
5. Where does he drive in his truck?
He drive**S** _____.
6. What does he deliver to houses and apartments?
He deliver**S** _____.
7. Where does he park his truck?
He park**S** _____.
8. What does he put on his shoulder?
He put**S** _____.
9. Where does he hurry after work?
He hurrie**S** _____.
10. What does Ernie do when he comes home from work?
He hug**S** _____.

Notes

¹The term was coined by Long (1991) to refer to pedagogic techniques that draw learners' attention to linguistic elements in communicative contexts.

²Even though *adult* is defined as being over age 12 (Lenneberg, 1967; Selinker, 1972), this research aims at investigating the interlanguage of adults who are over the age of 25.

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Training English Word-final Palatals to Korean Speakers of English

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Foreign accent and training in its reduction were studied. Many teachers and learners of a second language assume that fluency in speaking is the most important of the aspects of the delivery. However, pronunciation is another key aspect of delivery. For example, Koreans often do not produce English words with a final palatal and with a palatal+i distinctively (e.g., fish and fishy), which causes confusion and delays understanding. As an alternative to traditional articulatory training, the author examined whether intensive perception training alone would improve both perception and production. In this study, perception and production tests were given to 15 Koreans (Experimental group, KE) and 12 Koreans (Control group, KC) before the start of perception training. After the test, three weeks of perception training was given to KE only. Later, KE and KC took both a perception and production posttest 1 (one day after the training) and posttest 2 (three months after the training). Results showed that KE improved their perception of words with a final palatal after the training, and sustained the ability three months later. In addition, KE even showed no difference in perception from native speakers of English right after the training. In the production of final palatal words, however, KE did not show significant improvement after the training. The study indicates pronunciation activities in the classroom that are especially designed to help learners reduce deviant pronunciation raise learners' awareness of pronunciation errors.

Many second language (L2) speakers tend to have nonnative-like sound qualities when they speak in their L2, which slows down understanding by native speakers and nonnative speakers. For example, Korean speakers of English tend to produce *fish* as *fishy*, *change* as *changy* and *church* as *churchy*. In other words, they produce words ending with a palatal with an extra vowel /i/. This problem can be typically treated using short pronunciation drills throughout a language program and providing learners with many speaking opportunities set in a real-life context. The pronunciation drills can be incorporated into an intensive perception training program, too. Perception training is training that teaches the learner to distinguish sounds they hear. One study has shown that training has resulted in improvement in perception and subsequently in production of L2 sounds (Bradlow et al., 1999). This article will examine an intensive perception training program designed to help Korean speakers of English improve their pronunciation of final palatals in English. The purpose of this research is to determine the effect of such program. This article, first, will provide a brief literature review. Then, it will describe the method used and analyze the results. Finally, it will explore the implications of the results for the L2 classroom.

Literature Review

When L2 speakers begin learning an L2, many factors affect L2 speakers' performance. One of them is perceptual similarity between L1 and L2. It is said that the more an L2 segment is perceptually close to that of L1, the harder it is to acquire (Flege, 1995). For example, English palatals, /ʃ, tʃ, ʒ, dʒ/, sound similar to palatal sounds of Korean, but the former does not occur in word-final in Korean. Hence, *orange* becomes *orangy* in Korean loanword phonology. The similarity between two languages could be one of the sources for errors in the perception and production of sounds in L2. Many researchers examined the production of L2 speech segments, without focusing on how learners perceive these sounds. In this action research, the author examined both aspects—perception and production—and how they interact after training.

Even though most adult learners seem to have foreign accents, it does not mean that they cannot improve. Studies show that training helps reduce foreign accents of adults (Bradlow et al., 1997, 1999; Bongaert et al, 2000). Pronunciation training approaches have changed as language theory changed. However, most L2 professionals acknowledge the need for some training, due to several reasons, for example longer processing time is required to understand accented speech (Munro & Derwing, 1995). Different types of pronunciation training are available, but traditional articulatory instruction (i.e., the imitation of certain sounds several times) is usually favored because teachers often believe that the source of errors is incorrect articulation.

Intensive perception training, another type of pronunciation training, often results in improvement in both perception and production. For example, perception training for discriminating English /r/ and /l/ by Japanese speakers successfully resulted in improvement in perception and production (Bradlow et al., 1999).

Based on this approach, the current research first examined the effect of intensive perception training program on the perception of final palatals in English by Korean speakers of English. In addition, we also discussed the long-term effect of perception training. It was hypothesized that Korean speakers who took the training would sustain the learned ability three months after the training, when the posttest 2 would take place.

Second, the effect of the perception training on the production of final palatals was investigated. It was expected that KE will produce words with final palatal more correctly after the training.

Method

Native speakers of Korean (NKs) participated in three perception and three production tests: the pretest, the posttest 1, and the posttest 2. The perception tests were devised to examine whether NKs perceived an extra vowel in English words that ended with a palatal, and both groups were compatible. The perception tests included identifying English words and/or modified non-words ending with a palatal and with a palatal +/i/. The production tests were designed to investigate if NKs produced an extra vowel in words that ended with a palatal. The production tests involved reading words from a wordlist or naming words by reading flash cards, which was intended to elicit more spontaneous responses. The production data were then presented to a panel of native speakers of English for identification. Perception training lasted three weeks for an experimental group.

Participants

Participants included 27 NKs who had lived in Gainesville, Florida. Their length of residence and age of arrival varied. However, all of them had come to the U.S. after critical period of language acquisition (in their 20s and 30s). The NKs were divided into two groups: an experimental group (KE, N=15) and a control group (KC, N=12). Eleven native speakers of English also participated in the pretest only.

Training stimuli were produced by three native speakers of English, so as to expose NKs to a varying range of acoustic quality of segments. This approach is called "high variability training paradigm" of Logan, Lively & Pisoni (1991). The talkers did not have any pronounceable regional accents.

Procedure

Perception Test

Three subsets of stimuli were used in the pretest. Another subset (subset 4) was used in the posttests. Stimuli for the subsets were either English real words or possible English non-words, which had either a C1VC2 or C1V1C2V2 syllable structure where C2 was an English obstruent. /ʒ/ was not included due to its rarity. The wordlist used in subsets is attached in Appendix A.

All perception tests were carried out individually. All directions to NKs were given in Korean by the researcher. Native speakers of English were given directions in English. The participants were situated in a quiet room and provided with a headset (either Sennheiser HDC 451, or SONY MDR-V150). All stimuli were presented on the computer screen using UAB software, developed at the University of Alabama, Birmingham. The duration of each test was approximately 20-25 minutes. All directions and text stimuli were written in English orthography.

Subsets 1 and 2 (Identification Tests). In both subsets, participants were told that the task was to identify what they heard. The answer choices were written in English orthography. For example, when the participants heard /nuS/, the answer choices were nush and nushi.

Subset 3 (Correct/Incorrect Identification Test). The participants were told that the words that they would hear were either real English words or modified non-words. They had to decide whether the audio and text stimuli matched. For example, if the text was sash, and /saSi/ was pronounced, then the correct response was incorrect. The text stimuli were always real English words.

Subset 4. In the posttest 1 and 2, 72 more words were added to ensure more valid results. The format of the test was the same as subset 3 in the pretest.

In perception posttest 1 and 2, all participants, stimuli and procedure were the same as pretest, except posttest 1 took place approximately one month after pretest, and posttest 2 did approximately three months after posttest 1. Subset 4 was administered at the time of posttest 1 and posttest 2. Native speakers of English took it when they took pretest.

Training

Training was composed of perception tasks with real English words. The words chosen were minimal pairs of words that ended with a palatal or a palatal+i. A total of 63 pairs of words were selected and used. The word pairs were randomized in each session.

Three 30-minute sessions were provided per week (however, the actual time of individual training varied each day). The total training time was approximately 4.5 hours. In the training, the task was similar to pretest subset 2, except for the feedback part: KE were asked to identify whether a stimulus ended in C or Ci. Answer choices were written in English orthography. The participants listened to stimuli from same talker for a week, and then proceeded to a different talker each week.

Production Test

The recording of production stimuli was carried out individually in a quiet room. A unidirectional head-mounted microphone (Shure SM 10A) and a SONY TCD D8-DAT recorder were used to capture production. Then, data was transformed into WAV format using a Kay Lab CSL 4400 machine and stored in an IBM computer. The recording was redigitized at a sampling rate of 22.05 kHz and 16-bit quantization. All tokens were normalized for intensity with UAB software. Peak amplitude was normalized with 50 percent of the scale.

Two types of production elicitation were used: reading a wordlist and repetition of audio stimuli and naming words. Since the wordlist method could not elicit as many errors as the investigator had expected, a second type of elicitation was introduced. Thirteen Korean participants (7 in KE and 6 in KC) and all native speakers of English used the wordlist method, and fourteen participants (8 in KE and 6 in KC) used the second method of elicitation.

Reading the wordlist (Wordlist group). The wordlist included real English words ending with palatal affricates/fricatives and with a palatal+i. It is attached in Appendix B.

Delayed repetition and naming (Naming group). The second type of production tests consisted of the repetition of audio stimuli and naming words in English. For naming-words elicitation, English words that ended with a palatal, and that were easily translated into Korean words, were included. All words were generated from the previous wordlist (Appendix B).

In *Wordlist* group, the participants were asked to read a wordlist at a comfortable rate (i.e., a normal speaking rate) once. All words were produced in a carrier sentence, "Say ____ again."

In *Naming* group, first, the participants were asked to repeat what they heard after the native speaker's utterances from the computer. In the recording, the native speaker said "I will repeat ____ to him." Right after that, the speaker followed with "What did I just say?" Then, the Korean participants repeated the first utterance. Four to five seconds were given for the repetition. After the repetition task, the participants were asked to name words in English, which were written in Korean orthography on note cards (i.e., translation).

In the production posttest 1 and 2, all participants, stimuli and procedure were the same as pretest, except posttest 1 took place approximately one month after pretest, and posttest 2 did approximately three months after posttest 1.

Production Judgment

Six native speakers of English participated as a panel of judges (EJ). Through a short interview, the judges were found not to have any sustained experience with Korean speakers (e.g., having a Korean roommate, or teaching experience in Korea) or fluent in any other languages. Their age ranged from 18 to 30 (Mean = 21.33 years). One male and five females participated. For their contribution, four of the judges were paid, and two of them received extra credit for their classes.

Stimuli for the judgment were from production of KE, KC and native speakers of English. All three tests of KE and KC and the pretest of native speakers of English were prepared for the judgment. All stimuli of each participant were randomized.

In a quiet room, EJ were provided a headset. All tokens were presented on the computer screen using the UAB software. All judges listened to all tokens of each of 6 to 7 NKS participants each day for 4 consecutive days. The tokens were automatically presented at approximately two-second intervals. The task was a forced-choice identification test: EJ identified correct and incorrect version of words.

Analysis of Results

Perception

The hypotheses regarding whether perception training would result in the improvement in perception and would be retained were investigated. Raw scores from each test were used in the perception test analyses. First, to ensure if KE and KC are comparable, the total scores, with a maximum of 124 points, across three subsets of the pretest between the KE and KC were analyzed. The mean scores in each group were 77.6 and 75.16, which implies that both groups were very similar.

Second, in order to examine the effect of training on KE, both *Group* and *Time* were considered in this analysis. The total score difference across subsets 1, 2, and 3 (and 4 in the posttest 1 and 2) between KE and KC before and after the training was compared, and Table 1 summarized the results. Independent t-tests showed that before the training, KE and KC performed almost the same, but after the training, KE scored higher, and the same trend continued in posttest 2. A repeated measures ANOVA, with *Time* as a variable, was followed for KE and showed a significant main effect ($[F(2, 28)=13.66, p=0.000]$). Pairwise comparison showed that the pretest and posttest 1, and the pretest and posttest 2, were significantly different ($p=0.000, p=0.007$, respectively). KE performed significantly better in posttest 1 and posttest 2 than in the pretest. There was no significant difference between posttest 1 and posttest 2.

Table 1. Total score comparison between KE and KC

	KE: Mean (SD)	KC: Mean (SD)
Pretest	75.53 (20.25)	75.17 (19.1)
Posttest 1 ^a	110.93 (9.55)	84.5 (20.9)
Posttest 2 ^b	110.36 (10.25)	87.67 (19.46)

^a $[t(25)=4.376, p=0.000]$, ^b $[t(24)=3.8, p=0.001]$

Third, when the total scores of posttest 1 (highest scores among 3 tests) from KE and KC were compared with native speakers of English using independent t-tests, there was no significant difference between KE and native speakers of English, but there was a significant difference between KC and native speakers of English ($p=0.000$).

Fourth, interestingly, KC also improved after the pretest, although their proficiency was poorer than KE at posttest 1 and posttest 2. They actually did best in posttest 2. The reason why they improved is speculated as following. First, it might be just a test-retest effect, since there were 126 words in each test. And second, after taking the pretest, KC accidentally learned how to perceive the differences between two categories. It would be interesting to study accidental learning of perceptual differences.

In conclusion, before the training, KE and KC performed similarly in perception, but KE improved and did better in posttest 1 and posttest 2. Even they achieved the similar level with native speakers of English in distinguishing words ending with palatal and palatal+i in the posttest 1. KE also seemed to sustain the learned ability three months after the training.

Production

All analyses were carried out after converting raw scores into the mean percentage of correctness judged by the panel of American judges (EJ). The reliability of the six judges (EJ) was calculated using a reliability intraclass correlation coefficient analysis. The sum of each participant's score from each judge was tallied and compared. The Cronbach's alpha was 0.9981 ($p=0.000$), which was a highly reliable interrater correlation.

Group, task, and time comparison in KE and KC

The hypothesis regarding whether perception improvement would extend to the realm of the production domain and would be retained was examined. Total scores from each Korean group were tabulated.

Table 2 shows the mean percentage of correctness in identification for KE and KC in the pretest, and this seemed to have improved most in posttest 1 for Naming group, and posttest 2 for Reading group. When standard deviation was examined, we saw a wide range of variability in all three tests. In addition, when a mixed design $2 \times 2 \times 3$ ANOVA, with *Group* (KE, KC), *Task* (Reading, Naming) and *Time* (pretest, posttest 1, posttest 2) as variables, was performed, there was no significant main *Group*, *Task* and *Time* effect, or interaction effects. This means that there was no statistically significant improvement in the production of English palatals from the pretest to posttests in KE.

Table 2. Mean percentage of correctness in the pretest and posttests 1 and 2

Group	Pretest: Mean (SD)	Post1:Mean (SD)	Post2: Mean (SD)
KE-R ^a (N=7)	79.49 (7.56)	82.18 (10.62)	86.07 (9.25)
KC-R ^a (N=6)	80.72 (3.86)	81.34 (7.54)	87.13 (7.01)
KE-N ^b (N=8)	74.53 (11.87)	81.67 (11.8)	79.94 (10.58)
KC-N ^b (N=6)	67.82 (15.06)	73.97 (11.6)	72.94 (7.85)

^a: Reading group, ^b: Naming group

General discussion and educational implications

Our study was to explore the relationship between perception and production, and this has been discussed often within the realm of L2 learning models, such as the Speech Learning Model (SLM). In the SLM, learning an L2 segment is harder when an L2 segment is perceptually similar to an L1 segment which is the nearest equivalence. Therefore, acquisition of the L2 segment is completed when the phonetic category of the L2 deflects away from that of the L1 (Flege, 1995). For instance, in our study, a final palatal and a palatal+i were not in a separate category in the L2 phonetic domain of most NKs before the training due to Korean phonetic category. After training, the trainees successfully established separate categories of the two types of segments, which was evidenced in the perception posttest 1 and posttest 2.

The results of perception training on perception were largely positive. Although the perception training was carried out in a laboratory setting, this does not mean that this method cannot be implemented in actual second language classrooms. If a student is suspected of having a perception difficulty, it might be a good idea for a teacher to devise a session of intensive perception training. The training does not need to consist of nine sessions as in our study; it might involve two or three sessions. However, they should be structured to give plenty of stimuli that have contrasting pairs with minimal differences.

Unlike perception, production did not seem to improve immediately after the training. Some showed the training effect after the training, but others did not. This does not mean that the perception training was not helpful for the production of word final palatals. Rather, it showed that the production improvement took longer to occur than the perception improvement. Teachers need to expect this gap in terms of rate of improvement and not to be frustrated by slow improvement in production.

Three things need to be noted. First, in the perception posttest 1, there was no significant difference in the perception of words ending with a palatal and with a palatal+i between KE and native speakers of English. The perception training helped KE achieve almost native-like proficiency in perceiving those sounds. It is promising news to learners and teachers of L2 that L2 speakers can achieve native-like proficiency.

Second, the study provided the evidence that perception training leads to perception improvement. We, as second language teachers, believe this anecdotally, but this study empirically supports the notion that the intensive training really helps to improve perception.

Third, even though the production improvement in KE did not show a statistical significance, there were several people who improved their production after the training greatly. It is encouraging to note that there was only perception training available to the participants, but some participants seemed to extend the perception improvement to improvement in production. This just might be an evidence of the belief of teachers that perception improvement is a precursor to that of production. Therefore, perception training might reduce the deviance in production of final palatals for some adults. However, longitudinal research on effect of intensive perception training on production is needed to support this notion.

It seems to be true that the source of deviant speech of L2 speakers is the lack of attention. They tend to attend on an abstract level of speech sounds rather than an acoustic level. When attention is directed to a specific segment through an intensive training, even adult learners can improve. To conclude, the training effect was greatly positive.

Appendices

Appendix A

Perception Pretest Stimuli

Subset 1

bidge	bidgy	fos	fose	hoch
hochi				
huth	huthe	laf	lafe	lage
lagy				
didge	lidgy	luch	luchi	mich
michi				
nes	nese	nish	nishi	nush
Nushi				
pesh	Peshi	Taf	Tafe	Tas
Tase				
that	Tathe	Wof	Wofe	Zith
zither				

Subset 2

ash	ashy	ashy	blush	blushy
catch				
catchy	dish	dishy	edge	edgy
fish				
fishy	fishy	glitch	glitchy	glitchy
hatch				
hatchie	itch	itchy	itchy	judge
judge				

judgy	mesh	meshy	nebbish	n e b b i s h
nebbishy				
peach	peachy	ridge	ridge	ridgy
sludge				
sludgy	sludgy	smudge	smudgy	smutch
smutchy				
smutchy	wedge	wedge	wedgy	
<u>Subset 3</u>				
badge	badgie	bash	bashi	catch
catch				
catchi	effigy	effigy	elegy	elleg
eulog				
eulogy	eulogy	flush	flushi	hibachi
hibachi				
huge	hugie	hugie	karach	Karachi
leash				
leash	leashi	ledge	ledgie	nash
nashy				
nashy	obuch	obuch	obuchi	punch
punchi				
sash	sashi	teach	teachi	wedge
wedgy				
<u>Subset 4</u>				
bolsh	bolshie	bunge	bungee	clerge
clergy				
duch	dutchy	garnish	garnishee	hatch
hatchy				
dedge	hedgy	image	image	imagy
imagy				
Irish	irishy	mich	michie	ouch
ouchy				
parish	parishy	pinch	pinchy	plash
plashy				
podg	podgy	pouch	pouchy	pudg
pudgy				
rage	ragy	ranch	ranchy	range
rangy				
regg	reggie	ridge	ridgy	shush
shushy				
sketch	sketchy	slash	slashy	sluggish
sluggishy				
smooch	smoochy	squash	squashy	
stodg				
stodg	stodgy	stodgy	such	suchy
swash	swashy	thrush	thrushy	
trench	trenchy	usage	usagy	

Appendix B

Production Stimuli for “Wordlist” Group

*Direction: Read these words with a comfortable speaking rate. (/: pause one second)

Say Pine/ again		Say ashy/ again		Say English/ again
Say rain/ again		Say large/ again		Say Catch/ again
Say watch/ again		Say pick/ again		Say itchy/ again
Say language/ again		Say touch/ again		Say peach/ again
Say sausage/ again		Say bench/ again		Say edge/ again
Say judgy/ again		Say loop/ again		Say wedgy/ again
Say rib/ again		Say dishy/ again		Say judge/ again
Say rip/ again		Say fish/ again		Say ash/ again
Say catchy/ again		Say lube/ again		Say fishy/ again
Say bridge/ again		Say hood/ again		Say came/ again
Say polish/ again		Say finish/ again		Say lame/ again
Say food/ again		Say anguish/ again		Say same/ again
Say edgy/ again		Say suit/ again		
Say varnish/ again		Say foot/ again		
Say average/ again		Say fresh/ again		
Say page/ again		Say salish/ again		
Say church/ again		Say leak/ again		
Say much/ again		Say torch/ again		
Say wedge/ again		Say league/ again		
Say sit/ again		Say seat/ again		
Say Sid/ again		Say peachy/ again		
Say itch/ again		Say coach/ again		
Say beat/ again		Say change/ again		
Say bead/ again		Say inch/ again		
Say mash/ again		Say seed/ again		
Say such/ again		Say hash/ again		
Say age/ again		Say bit/ again		
Say pig/ again		Say bid/ again		
Say arrange/ again		Say British/ again		

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**What Causes Reliance on English?
Challenges and Instructional Suggestions
in a Drive for Using a Target Language Only**

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Given the raised graduation requirement of the proficiency Enhancement Program (PEP) to attain proficiency levels of 2+, 2+, and 2, the importance of target language use has been highly emphasized across language schools at Defense Language Institute Foreign Language Center (DLIFLC). This article discusses some of the challenges associated with the current trend towards exclusively using target languages and provides pedagogical suggestions on how to maximize quality as well as quantity of target language use at different stages of foreign language courses at DLIFLC. Taking Krashen's input hypothesis as a theoretical framework, this article addresses the value of tailored target language input to benefit students.

**Conflicting Views Toward Using the Target Language
in Foreign Language Classroom**

The importance of using the target language in foreign language classroom was widely recognized by many researchers (e.g., Duff & Polio, 1990; Kreamer, 2006; Polio & Duff, 1994; Turnbull, 2001). In second/foreign language teaching methodologies such as communicative language teaching and task-based instruction (Nunan, 1989; Rolin-Ianziti & Brownlie, 2002; Skehan, 1998; Willis, 1996; Prabhu, 1987), learners are expected to use the target language as primary means of communication in carrying out various classroom activities. Even though few would question the value of using the target language in the second foreign language learning process (Liu, Ahn, Baek, & Hann, 2004), the issue of how much teachers should use the target language in the classroom has still been a matter of controversy.

Among the researchers who advocate target language use in foreign-language classrooms, Turnbull (2001) argues that the maximal amount of target language should be used, particularly in the "context in which students spend only short periods of time in class on a daily basis, and when they have little contact with target language outside class" (p. 535). Cummins & Swain (1986) point out that the amount of the target language use is positively related to target language gains. Lee (2000) indicates that the children learning two languages tend to use the language that his or her conversation partners use.

If Lee's argument is applied to foreign-language classrooms, it is assumed that teachers' choice of a language (either native or target language) in the classroom triggers students' use of that language which, in turn, leads to the acquisition of that language.

On the other hand, there is also some research evidence suggesting the positive effects of concurrent use of both the non-target and the target language in terms of students' acquisition of the target language (Ferguson, 2003). It is reported that teachers use English as an instructional tool to help students grasp the concepts and directions more clearly (e.g., Adendorff, 1996; Cook, 2001; Ferguson, 2003; Hosoda, 2000) in foreign language classrooms. Ferguson (2003) contends that teachers switch modes from target language to English for instructional purposes such as to "scaffold knowledge, to manage classroom discourse, and to humanize affective climate of the classroom" (p. 47). In the similar vein, Adendorff (1996) and Hosoda (2000) claim that teachers' use of English in foreign language classrooms can be a useful communicative resource to help students understand lesson contents, to manage students' behavior, to maintain a positive classroom atmosphere, and to facilitate fluidity of the classroom discourse. The communicative function of a learner's first language in the foreign language classroom is also a concern of Cook (2001). According to Cook, the learners' first language may be used when the concepts learned are otherwise too difficult or cost them too much time in processing information.

Target Language Rules and Immersion Activities at DLIFLC

Language schools at the Institute advocate the exclusive or nearly exclusive use of target languages in the school by establishing implicit or explicit rules for target language use and by incorporating various immersion activities into curriculum. According to the partial immersion rules set by a department in Korean school, teachers and students must speak Korean only while they are at school except for some particular occasions such as conducting formal academic or disciplinary counseling, providing feedback on tests, sharing opinions and ideas at sensing sessions, and holding grammar review sessions. The rule also specifies a step-by-step instruction on how to deal with violators of the rule. Though not explicitly stated in other language schools, this immersion rule became a guiding principle across language schools and teacher training programs at DLIFLC. Teacher's language use is periodically monitored by peers and supervisors through classroom observations, in which the aspect of target language use is one of the main criteria used to evaluate teaching performance.

In order to provide students with opportunities to use the target language in the meaningful context and to expand cultural knowledge and awareness, various immersion programs are implemented. First, the isolated immersion (ISO immersion) is held every semester either at the Weckerling Center in the Presidio of Monterey or at the ISO-Immersion facility in the Ord Military Community (OMC). During the three to five day immersion, both teachers and students engage in various cultural tasks mimicking real life situations with carefully designed activity schedules and scenarios exclusively using the target language. Also, the in-country immersion program was recently introduced and has been implemented in different language schools. This in-country immersion experience provides students with opportunities to practice and use target language in a variety of real life contexts. These target-language rules and immersion programs have grown out of the needs to meet the raised graduation criteria of the proficiency enhancement program

(PEP) by maximizing the amount of target language input and output. It is believed that more use of and exposure to the target language are conducive to the higher level of language proficiency.

Internal and External Goals of Language Learning at DLIFLC

The students at the Institute have both internal classroom goals¹ of attaining academic language proficiency, which is measured by the Defense Language Proficiency Test (DLPT), to meet the graduation requirements and external goals of attaining language proficiency to perform language specific missions in their next job assignments. On the other hand, the aforementioned target language rules and immersion activities seem to mainly focus on speaking skills – emphasizing utilitarian aspects of foreign language teaching – to help students use and speak language for pragmatic purposes and become successful language users² in real life situations rather than to help students achieve academic goals at the Institute and become a successful language learners³ in all skill areas. In this regard, target language rules and immersion activities should encompass both pedagogical corpus at the class and utilitarian ends outside the class. Toward these goals, carefully designed instructional materials and a variety of tailored target language inputs to improve students' level of language proficiency in all skill areas need to be provided so that students can use speaking activity as a cognitive tool (Anton & DiCamilla, 1998) to improve reading and listening skills as well.

Role of Target Language in Foreign Language Learning Process

In terms of the relationship between target language use and long term and short term gains of language proficiency measured by the DLPT and unit tests, no strong empirical evidence has been found yet suggesting the positive effects of target language use on students' performance. As to students' performance on the DLPT, for example, no significant differences were found between two teams, one of which adopted immersion methods and the other which did not (Covell, 2005). Recently, Oh (2007) conducted research that compared three groups of students in terms of test scores after receiving grammar instruction with varying amount of target language use. The results of the study revealed that the group in which the teacher used the target language during instruction while the students used English, showed the highest scores in the subsequent grammar test, followed next by the group in which both teacher and students used English. Interestingly, the group in which both the teacher and students used the target language exclusively obtained the lowest average score on the subsequent grammar test. The results of Oh's (2007) study support Anton and DiCamilla's (1998) point that learners' first language serves as a mediating device to understand particular linguistic forms among students sharing the same first language.

Even though these studies are limited in content and scope, their findings suggest that a more careful analysis of instructional content and the needs and expectations of students during different stages of the foreign language learning process should be made before accepting absolute target-language use into the curriculum as a miraculous cure-all. While enforcing the rule of target-language use from the beginning of the course may provide students with opportunities to develop a variety of communication strategies to understand and to be understood in the target language, which, in turn, may speed up the

process of learning that language, it should be noted that language learning does not take place when students receive inputs which exceed their cognitive capacities (Krashen, 1981). Therefore, it is important to provide a learning environment in which the students receive a sufficient amount of target language input “just far enough beyond their current competence that they can understand most of it but still be challenged to make progress” (Brown, 1987, p. 188). In the next section, we will discuss the challenges that teachers and students may face in classrooms prohibiting the use of non-target languages.

The Challenges of Maintaining Exclusive Use of Target Language in the Classroom

The greatest hurdle that both teachers and students must overcome in target-language only classrooms is the problem of communication. This problem occurs when the gap between the level of teachers’ target language use and the level of students’ target language proficiency is considerable. In teacher-student interaction, communication breakdown can be detected when teacher provides detailed activity instructions in the target language to entry level students or when teacher provides explanation of grammar or vocabulary words in the target language in vain. This breakdown may be partly overcome by using body gestures, visual aids, or wild guesses, though teachers and students may encounter situations in which they are not able to communicate with one another in the target language with any of the aforementioned strategies. At that point, students and teachers need to find alternative ways to maintain the flow of communication and ideas rather than finding themselves marooned on an island of target-language fragments.⁴

Communication difficulty can also be noticed in student-student interaction, particularly when they work in groups or in pairs to perform collaborative tasks that require higher-order thinking process such as “solving problems,” “posing opinions,” or “defending or justifying positions on certain issues.” The process of identifying the contents and purposes of the task and discussing the ways to solve specific problems requires a considerable cognitive load, and the commitment to use the target language exclusively during this process imposes an additional burden on the students.⁵

Another challenge regards unfamiliarity with the content of the curriculum. While learning a foreign language, students may encounter culture-specific terms or the concepts that require content knowledge even in English. For example, several concepts in the Korean, such as *arranged marriage* and *one-time-deposit rent*, and other concepts that require specialized knowledge such as *global warming*, or *immigration law*, may be difficult to comprehend without the help of English input.

In addition, affective and emotional factors on the part of the students should be taken into consideration. According to our previous study (2007), some students expressed their frustration at feeling stupid when they perceived that everybody except him or herself understood what the teachers were saying in the target language. Some other students expressed that they felt embarrassed or even bothered when they had to communicate with the teachers in the target language outside the classroom. These students need “tension-relieving banter,” (Adendorff, 1996, p. 395) because an excessive amount of unknown vocabulary used by teacher may increase the anxiety level of students and ultimately result in de-motivation. Accommodating the needs of both groups of students using the target language more without causing them the feeling of frustration is another issue to be taken into consideration.

Finally, some teachers may find using a certain amount of English necessary for the sake of completing assigned lessons (Kraemer, 2006) within a limited class time. They switch codes from target language to English or vice versa instead of laboriously dragging out a class hour repeating and rephrasing words and phrases in the target language in vain.

The Use of English as a Communication Tool: The Flip Side of It

The aforementioned challenges relate to the problems of communication/comprehension and classroom management that might frequently occur in foreign language classrooms prohibiting the use of non-target languages. These problems have provided the foreground of constant debates on the use of non-target language in foreign language classrooms, especially among those who advocate the use of students' native language. According to Kraemer (2006), despite departmental policy to use target language exclusively in the classroom, English was still used in German classroom in order to perform specific functions, such as classroom management and administrative vocabulary, activity explanation, grammar instruction, translation, cultural points, and repetition or explanation to prevent lack of comprehension. Our study on teachers' code-switching in Korean classrooms (2007) supported Kraemer's (2006) findings that the teachers used English to translate, to provide extended explanations on the concept learned, to clarify grammar concepts, and to manage classroom sequences and procedures.⁶

On the other hand, the qualitative analysis of classroom discourse data from our previous study revealed that the teachers used English more than necessary in certain classroom encounters where the use of target language did not seem to interfere in maintaining effective communication between teacher and students. This implies that teachers' use of non-target language may deprive students of opportunities to receive target language input unless the amount of non-target language is carefully monitored by teachers.

Ellis (1984), Omaggio (2001), and Polio (1996) contended that one of the best conditions to learn foreign language is when students are exposed to as much authentic language input as possible. Therefore, teachers need to provide students with a maximum amount of target language input in foreign language classrooms with the condition that the target language does not cause serious communication breakdown between teacher and students and the feeling of frustration for the part of students. Toward this end, the quality, as well as the quantity of target language input should be taken into consideration, and this issue will be discussed further in the next section.

Comprehensible Input and Target Language Use

As briefly mentioned in the previous section, various challenges associated with using the target language in the classroom should be addressed not so much by the quantity of the target language input as by the quality of the input students receive in the classroom. It is typical in foreign language classrooms that students encounter with "the words that differ from the native language, rules that not only differ but that are internally inconsistent because of certain 'exceptions,' and sometimes a whole cultural system that is distant from that of the native culture." (Brown, 1987, p. 99). This problem can be diminished to a great extent by adjusting the quality of target language input.

Considering that learning takes place when learners receive language input (via listening or reading) which contains “structure a bit beyond his or her current level of competence” (Krashen, 1981, p. 100) and when the affective filter (e.g., anxiety, defensiveness) is low (Brown 1987), target language input should be adjusted to be comprehensible to the extent that students are able to handle it without becoming overly anxious or frustrated with understanding the language. For example, teachers may make input comprehensible through slight modification of speech — e.g., repeating utterances, slowing down the speech, paraphrasing, using simplified syntax and vocabulary, using high frequency classroom management terms which may be taught in the beginning of the course (Duff & Polio, 1990). Or, teachers may use nonverbal language to make input more comprehensible — e.g., using visual aids or body gestures — to help students understand the concepts/materials presented through contextualization. If neither of these methods works, teachers might use a minimum amount of English to give activity instructions to entry level students or to explain concepts which are hard to explain in the target language only. When students comprehend concepts and instructions in the classroom, they are given opportunities to take what they have learned into real world applications by participating in immersion-type activities. To facilitate students’ learning process, teachers need to make wise decisions about when and for what purposes they speak in non-target languages. In the next section, we will develop this issue further by providing some design considerations and instruction tips on how to maximize the quality of target language inputs in foreign language classrooms.

Using Target Language Effectively at Different Stages of Foreign Language Learning

After several months of foreign language learning at the Institute (in the 1st semester), the students’ level of proficiency according to Interagency Language Roundtable (ILR) ranges 0+ to low 1. Students are able to formulate very simple questions and some memorized utterances, such as exchanging greetings, and eliciting and providing skeletal biographical information. Students can also understand simple questions and very simple face-to-face conversations when it is conducted at a slow speed with repetitions. They may still have difficulty understanding language for giving directions and instructions or describing and explaining concepts or phenomena in the target language.

At this stage of language learning, teachers need to tailor their language to facilitate students’ information processing by using slow speed, simple vocabulary, and sentence-level utterances. Visual aids or body languages to explain grammatical concepts or vocabulary words can also be excellent supporting instructional tools. If neither of these methods works after a series of efforts to communicate with students in the target language, students’ mother tongue may be the last option to be used selectively to continue classroom activities. Students may also be given opportunities to use the target language outside the classroom through various types of immersion style activities and homework assignments. For example, when they are learning expressions and grammar patterns associated with ordering food in a restaurant, the teacher can give them an immersion task to go to one of the ethnic restaurants in the area, order food in the target language, and report their experience orally or in writing the next day. Also, students are asked to conduct various interview tasks in and outside the classrooms to extract basic biographical information from the people they meet.

When students' proficiency of the target language meets the requirement of a solid *I* to low *I+* level (usually at the 2nd semester or the beginning of the 3rd semester), the students are able to understand and produce language which is above the level of exchanging skeletal biographic information. They are able to maintain conversation on familiar topics in the target language, while their use of English on these topics becomes less frequent (Duff & Polio, 1990). During this stage, the teacher may change his or her target language behavior by prompting students to produce more self-initiated discourse in the target language through various classroom activities. For example, teachers and students exchange factual information in short listening and reading passages in their own words through information gap activities. Also at this level, students are asked to process English instructions or directions in the target language. The tasks at this stage should also focus on helping students comprehend and produce paragraph-level discourses using grammar patterns and vocabulary that they learn. Authentic materials to be used in this stage of learning are still limited in scope and content, and it is teachers' responsibility to select and modify texts to meet the current level of students.

By the end of the third semester, when students reach a proficiency of high *I+* to *3+* in the target language, they are able to handle somewhat extensive topics on factual information as well as work and family related matters from an extended pool of vocabulary. They may still have difficulty understanding the topics that are culturally specific or that require specialized knowledge. Also, it would be demanding for students to process texts that require higher order thinking process such as clarifying points, justifying arguments, defending positions on abstract topics. At this stage, activities should be more geared toward helping students become more autonomous in their own learning. For this, a minimum amount of English input may serve as a cognitive buffer to help students build content schemata before processing information in the target language. For example, students identify the meaning and usage of key vocabulary words or expressions on their own by comparing text in English with text in the target language, or discover convention/usage of new vocabulary words through context cues or figure out the best definition(s) out of several of a certain vocabulary word from a dictionary search. It should be noted, however, that English texts used at this stage are only for the purpose of clarifying or extending concepts that students have already acquired in the target language. As a follow up task, students are asked to write or record their opinions, arguments, or counterarguments on the assigned topics using proper vocabulary and expressions in the target language, or they may engage in real telephone conversations with native speakers for their own personal needs (e.g., making a reservation or buying a plane ticket) outside the classroom.⁷

In any stage of learning, it is a teacher's responsibility to carefully monitor the quality of target language input and output to make sure that students are able to comprehend input which is a little bit challenging, while at the same time able to produce the language that is high enough for their current levels.

Conclusion

In the current paper, we discussed some of the challenges of using target language exclusively in the context of DLIFLC, and provided instructional suggestions to promote the quality and quantity of target language use in and outside the classroom. Due to students' level of proficiency and contextual constraints (e.g., relatively a short amount of time studying the target language, the students in the classroom share the same first language, teachers speak students' first language), using the target language exclusively in the classroom is desirable, but a very tough assignment for both teachers⁸ and students.

Given that there is little exposure to target language input outside the classroom and the classroom is the most immediate source of target language input, language classroom should be an input-rich environment (Doughty and Long, 2003). The input-rich environment will be possible if teachers provide students with a wealth of situational and functional contexts using a variety of texts and discourse types (Brandl, 2008) in the target language that are appropriate for the level of students.

With an increasing volume of research reporting positive aspects of using students' first language in foreign language classrooms, teachers' choice of language should be examined from different perspectives. That is, quality, as well as quantity, of target language input during lessons should be taken into consideration in making instructional decisions in the classroom. In other words, teachers' language needs to be "roughly tuned" (Ellis, 2003, p. 45) to the level that enables students to understand it while still containing some linguistic forms that are challenging to them. The input which is carefully monitored by teachers will facilitate students' comprehension, which, in turn, will help students produce language effectively. This process will lead to a balanced development of both receptive (e.g., reading, listening) and productive (speaking, writing) skills in the target language for students.

Teachers need to gradually expand their target language repertoires depending on students' level of proficiency at different stages of the foreign language learning process. That is, the level or contents of the target language input in the first semester should be different from those in the second semester as students' needs and levels of proficiency change. Lastly, teachers, as reflective practitioners, should be aware of their own language choice in the classroom and carefully monitor how their language influences on-going classroom discourse and students' performance at both a macro and micro level.

Appendices

Appendix 1

Table 1. *Functions and Relative Frequencies of Teachers' Use of English in Korean Language Classrooms*

Functions ⁹	Relative frequencies of English use		
	Semester 1	Semester 2	Semester 3
Translation	29.1%	54%	20.8%
Grammar Instruction	8.9%	4.4%	2.1%
Classroom management & Activity instruction	21.5%	13.7%	18.8%
Short & extended explanation of language concepts	12.7%	6.6%	39.6%
Feedback	16.5%	7.7%	12.5%
Others (cultural points, talking to individuals, empathy/solidarity)	11.3%	13.6%	6.2%
Total	100%	100%	100%

(Bae & Kim, 2007)

Appendix 2

Examples of English use at Korean language classrooms in each semester¹⁰

A. 1st Semester

1. Grammar Instruction¹¹

T¹²: *Only 1st person when notifying your intention. It cannot be used with the 2nd or the 3rd person.*

제가 할게요. [I'll do it]¹³

I'll volunteer to do that.

아, 제가 할게요. [Oh, I'll do it]

저기 가서 책 pick up 할래요? [Would you go there to pick up a book?]

S1¹⁴: 제가 가서 pick up 할게요. [I'll go and pick it up]

제가 할게요. [I'll do it]

[¹⁵I'll do it.

S2: [You can use second or third person. =¹⁶

T: For example?

어떻게요? [how?]

S2: I, I just from that uh, like you if you can use something different....

S3: see you guys (why the) dictionaries are not good =

2. Others (Cultural points)¹⁷

T: *Be quiet when you eat.* (.)¹⁸

한국에서는 그렇습니다. [In Korea, people are quiet while eating]
한국에서는 밥 먹으면서 떠들면 안 됩니다. [In Korea, you are not supposed to talk loud while eating]

That's Korean Culture. Very strange culture. But when I was young, while
제가 밥을 먹을 때 이야기 하잖아요? 그럼 아버지한테 혼났어요. [If I talk while eating, I was scolded by my dad]

So according to the traditional Korean culture, we are not supposed to speak while we are eating. (.) We have to focus on eating. (.) 좀 [a little bit] strange 하죠, 그죠 [right] [however]?*Nowadays, nowadays that tradition has been disappearing? 그러나 Traditionally, we're not supposed to talk a lot during meal time.*

B. 2nd Semester

Translation (to explain the meaning of vocabulary words)¹⁹

T: 네 [긴장을 풀면

[Yeah, when you relax/release tension]

S3: [what does it mean? =

T: 늦추다 *means relax*란 뜻이 있어요. 하지만 ...

[In English, 늦추다 means relax, however...]

In Korean, uhum... 긴장을 늦추다. You always should say ‘긴장.’ ‘긴장’ *means tension* 이란 뜻이에요. Tension. So, 긴장을 늦추면: 긴장을 풀면: 잠을 잘 잘 수 있어요

[In Korean, (you should say) ‘lease tension.’ You always should say ‘tension.’

‘Tension’ means tension. Tension. So, when you release your tension, when you resolve your tension, you can sleep well.]

S3: See you guys (why the) dictionaries are not good =

S4: [uhum

T: =맞아요. Dictionary is 바보예요 바보.

[Right, Dictionary is a fool]

C. 3rd semester

Translation + Extended explanation of contents of the passage²⁰

T: 예, *added punishment. She's already in the middle of?*

S5: 집행유예? [probation?]

T: 예. 집행유예가 *probation*이죠. [yes, 집행유예 means probation].

그런데 이제 [By the way, now] *she's afraid of having added punishment.*

그래서.. [So...]

S6: He killed the guy

T: 예, 그래서... [Yes, so...] [killed the guy.

S6: [Then, that makes everything better =

T: *Everything was worsened, yea...*

Appendix 3

An example of communication breakdown²¹

T: 음, 남자친구가 돌아오게 하고 싶으면
[Um... if she wants her boyfriend back]

S1: (.) *We don't want him back.*

T: 아 맞아요. 음. (.) 그런데 이 사람은 그걸 원하잖아요?

[Oh, right. Um. (.) By the way, this person wants it, doesn't she?]

S1: (.) *What? Uh...*

T: 이 사람, 이, 이 여자분은 그것을 원합니다. 남자친구가 돌아오는 것을
[This person, this, this woman wants her boyfriend back]

S2: [(.) *uh?*

S3: [*Doesn't this mean if?*

T: *Um?*

S2: 새 사귀 남자친구 [newly met boyfriend]? ?

T: 새 사귀 남자친구 [newly met boyfriend] ? 새 남자친구 [new boyfriend].
OK, that's enough..

Notes

¹ For more explanations of internal and external goals, see Cook (1999). In the current paper, we will focus on internal classroom goals in relation to target language use.

² & ³The term “language user” was coined by Cook (1999), referring to “someone who is using an L2” (1999, p. 187) in real life situations as opposed to “L2 learner,” who is still in the process of learning the second language (p. 187-188). These two concepts are not so much two separate entities as are interrelated because L2 learner can also become an L2 user whenever they step outside the classroom to use the target language.

⁴ For telling examples of communication breakdown and repairing strategies that teacher and students use in the classroom, see Appendix 3.

⁵ This issue can be discussed further in terms of interrelationships among task, text, and learners. As this issue is beyond the scope of the current paper, it will not be dealt with in detail in this paper.

⁶ Functions/relative frequencies of English use in the Korean classrooms and telling examples are presented in Appendices 1 & 2.

⁷ This activity usually involves a certain degree of complication, and students will be able to develop linguistic strategies to deal with such complication by engaging in dialogues with native speakers in real life situations. This immersion activity can be also implemented in the second semester for students with the higher level of target language proficiency.

⁸ As most of the teachers at language schools have earned proficiency level of 2 or higher in English, they can communicate with students in English without problems. Therefore, English sometimes slips out of their mouth when teachers find communication with students in the target language difficult or frustrating.

⁹ The six different functions in the table 1 were adapted from Kraemer (2006).

¹⁰ Classroom discourse data are adopted from the unpublished manuscript by Bae & Kim (2007).

¹¹ Discourse segments that reflect “grammar instruction” are marked in italics.

¹² “T” indicates Teacher

¹³ English translation is provided in []

¹⁴ S1, S2, S3, S4, & S5 = Students

¹⁵ “[” indicates overlapping or simultaneous talk

¹⁶ “=” indicates “latch” sign, that is, the second speaker follows the first with no discernable silence between them.

¹⁷ Discourse segments that reflect “cultural point” are marked in italics.

¹⁸ “(.)” indicates short pause

¹⁹ Discourse segments that reflect “translation” and “casual talk” are marked in italics.

²⁰ Discourse segments that reflect “translation” and “extended explanation” are marked in italics.

²¹ Classroom discourse excerpt is from Bae & Kim (2007). Discourse segments that reflect “communication breakdown” are marked in italics.

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REVIEWS

Conversation Analysis and Language for Specific Purposes (2007). Edited by Hugo Bowles and Paul Seedhouse. Bern, Switzerland: Peter Lang. Pp. 334.

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A substantial and stimulating volume, *Conversation Analysis and Language for Specific Purposes* endeavors to fill a significant niche in contemporary studies of talk in language-for-specific-purposes (LSP) instruction. Hugo Bowles and Paul Seedhouse have compiled a highly readable volume that promotes “a trend seeking to apply conversation analysis to areas of applied linguistics” (p. 10). In particular, the works that comprise this collection “build a bridge between the findings of CA [conversation analysis] research and the content of specific LSP courses and materials” (Schegloff, Koshik, Jacoby, & Olsher, 2002, p. 17). The book achieves this goal thanks to its systematic sequencing and the consistency with which chapters focus on a unified set of themes. Accordingly, this collection is divided into three interconnected sections: (1) CA and LSP methods and approaches, (2) domains for application, and (3) instructional implementation.

The initial chapter, “Describing and Analysing Institutional Varieties,” presents an overview of the domain of CA by defining *context* as a framework within which the observer can understand the relationship between talk (speech events) and the settings in which talk unfolds. Examples include courtroom discourse, doctor-patient conversations, and radio communication between airline pilots and air traffic controllers in English. Paul Seedhouse and Keith Richards propose a three-dimensional contextual model consisting of the institutional context, sub-variety context, and micro context. The authors insist that CA should focus chiefly on “the subvarieties rather than on the overarching variety because *the subvarieties are the interactional environments through which the institutional business is actually accomplished*” (p. 22). The chapter carefully examines a speech sample, highlighting descriptive problems that arise for the conversation analyst. The authors persuasively claim that their three-dimensional model provides a tool “to cut through the thorny theoretical problem of how to link the micro and macro levels of social organization” (p. 34).

In the second chapter, “Conversation Analysis: Methodology, Machinery, and Application to Specific Settings,” Gabriele Pallotti takes up the methodological thread of the preceding chapter by examining the fundamental domains of CA method, technique, and practice. Geared mainly toward applied linguists with little background in CA, this chapter reviews ethnomethodological approaches to data selection, transcription, analysis, and generalization. Pallotti skillfully acquaints non-specialist readers with prevalent CA categories and units of analysis, including turn-taking, sequences, repairs, and preferences. He then elaborates on theoretical and methodological issues in CA, such as context, the contrast between conversation and institutional talk, and generalizability. This chapter thus serves as a useful reference point for readers as they work their way through the remainder of the book.

Keith Richards draws on the first two chapters by proposing a decisive shift from frontstage to backstage interaction in LSP research (Goffman, 1959/1971), stressing that single-case CA offers the most suitable means of generating high-quality LSP materials. “Knowing When to ‘No’: Aspects of Alignment in Professional Relationships,” the volume’s third chapter, explores the pragmatic complexity of saying “no” in professional settings. Richards presents contextually grounded analyses of “no” in a range of contexts to illustrate how this dispreferred utterance can signify shifts in social allegiances. He convincingly proposes that materials used in LSP instruction must be informed by scrupulously analyzed authentic speech data so that language learners can be spared “the interactional and . . . professional embarrassment that might arise as a result from learning in the field” (p. 92).

Steve Walsh and Anne O’Keeffe open the volume’s second section with “Applying CA to Modes Analysis of Higher Education Spoken Academic Discourse,” a chapter in which they articulate the complementary functions of CA and corpus linguistics, stress the value of examining data at a localized level (in line with Seedhouse and Richards in Chapter 1), and propose a modes-based approach to LSP pedagogy. By merging the quantitative precision of corpus linguistics with the nuanced insights of qualitative methods, Walsh and O’Keeffe introduce an innovative approach to classroom discourse. They outline strategies for focusing on micro-contexts and discursive modes that can alert teachers to instructional goals and specific interactional features. In keeping with the editors’ promise to provide readers with tangible practical tools, this chapter culminates in a detailed inventory of five modes-based strategies for working with core classroom lexis as a means of enhancing learners’ interactional proficiency.

In “Interpreter Intervention in Mediated Business Talk,” Laura Gavioli and Nick Maxwell target a highly specific category of talk, namely, interpreter-mediated communication in business situations. More specialized than prior chapters, this fifth entry illustrates how interpreter-mediated business interaction constitutes a multi-layered construction process necessitating the adoption of multiple roles on the part of the interpreter. The authors apply contemporary CA techniques in analyzing an extensive range of data samples, leading them to conclude that interpreters “do much more than simply translate principal participant talk” (p. 175). Interpreter activities, they maintain, challenge “traditional ideas about interpreter ‘neutrality,’ providing us with materials for re-thinking . . . the role of interpreters . . . and suggesting the kinds of communicative competence professional interpreters should aim to acquire” (p. 176).

In the realm of ESP, Anne Burns and Stephen Moore apply CA techniques to identify salient properties of conversational routines in postgraduate accounting courses in an Australian institution. Their chapter, “Conversation Analysis and the Accounting Classroom: Exploring Implications for LSP Teaching,” explicitly targets “teachable” features of accounting talk, including turn-taking norms and the co-construction of clarifications. Their careful data analysis leads to the articulation of several implications for LSP teaching, not least of which is that LSP teachers of accounting can “explore the conversational strategies used in the future workplace of their students” by collecting and transcribing accounting conversations, devising authentic simulations, and raising learner awareness of effective oral communication functions (p. 204).

Cecilia Varcasia pursues the pedagogical mission of this volume in “English, German, and Italian Responses in Telephone Service Encounters,” a chapter in which she presents a concise analysis of retail service call openings in three languages. The

author compares the response strategies of service providers in Great Britain, Germany, and Italy using a blend of quantitative and qualitative methods, concluding that “on the whole, there are cross-culturally shared response strategies when giving a non-satisfying response” (p. 236). Varcasia proposes concrete implications for LSP teaching. The first of these is that LSP course books should make explicit a three-step order of initiation in training students to deliver non-satisfactory responses to telephone clients.

The third thematic section begins with Andrew Packett’s chapter, “Teaching Institutional Talk: A Conversation Analytic Approach to Broadcast Interviewing,” which characterizes CA applications to the teaching and learning of pragmatic strategies for conducting journalistic interviews. Drawing on two corpora of speech data (a corpus of professional interviews from British media sources and a corpus of student-generated face-to-face interviews), Packett systematically examines how LSP students confront the recurrent problem of talk through CA-informed instruction, project work, reflection, and assessment. The author’s findings point toward “CA-informed awareness-raising pedagogy” as an effective method for enhancing learner self-awareness as well as oral performance (p. 266). Packett proposes that “CA can be applied as a powerful tool” leading to “informed action on the part of aspiring professional interviewers” (p. 267).

Telephonic communication is revisited by Jean Wong in “Answering My Call: A look at Telephone Closings,” a chapter that scrutinizes a set of ESL textbook dialogues with respect to CA insights into the nature and structure of “real talk” (p. 271). Not surprisingly, Wong discovered “a mismatch between what . . . students are presented with in telephone dialogues and the sequences that conversation analysts . . . have described as canonical of real telephone openings” (pp. 271-272). This chapter looks carefully at the closing sequences of telephone conversations, which can involve a number of subtle leave-taking speech activities that textbooks seldom acknowledge, let alone address in depth. Wong appropriately calls for further CA research, as well as efforts to improve LSP pedagogy by bringing CA insights to bear on working with authentic speech data in the classroom.

In the final chapter, “Interactional Competence and the LSP Classroom,” editors Bowles and Seedhouse endeavor to synthesize the volume’s themes by introducing a model of interactional competence for LSP instruction. In keeping with the book’s stated aim of helping LSP practitioners and applied linguists grapple with discipline-specific issues, the model describes procedures for applying CA to authentic speech data, pointing practitioners toward domains (e.g., communities, institutions, classrooms) where teachers and learners can construct, apply, and elaborate on suitable analyses. Among other options, these procedures include case analysis, the study of institutional interaction, and the identification of key moves. With the help of a series of schematic figures, Bowles and Seedhouse outline a sequence for curricular innovation integrating research, teacher education, and materials writing. They thus propose a line of CA/LSP research that mediates between CA in specific domains and speech pedagogy in the language classroom.

Effectively blending theory, research, and pedagogy, *Conversation Analysis and Language for Specific Purposes* offers LSP professionals and scholars a remarkably coherent collection of practical resources for understanding and deploying CA tools. This volume presents a refreshing range of materials that will appeal to language educators in search of informed, innovative ways to enhance learners’ oral pragmatic skills by acquainting them with authentic spoken discourse.

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General Information

Calendar of Events*

2008 Events

- Linguistic Society of America (LSA)**, 3–6 January, Chicago, IL. Contact: LSA, 1325 18th St. NW, # 211, Washington, DC 20036-6501; (202) 835-1714, Fax (202) 835-1717, Web: www.lsadc.org
- Central States Conference on the Teaching of Foreign Languages (CSCTFL)**, 6–8 March, Dearborn, MI. Contact: Patrick T. Raven, Executive Director, CSCTFL, PO Box 251, Milwaukee, WI 53201-0251; (414) 405-4645, Fax (414) 276-4650, Email: CSCTFL@aol.com Web: www.csctfl.org
- Computer-Assisted Language Instruction Consortium (CALICO)**, 18–22 March, San Francisco, CA. Contact: CALICO, Southwest Texas State University, 214 Centennial Hall, 601 University Drive, San Marcos, TX 78666; (512) 245-1417, Fax (512) 245-9089, Email: info@calico.org Web: www.calico.org
- American Educational Research Association (AERA)**, 24–28 March, New York, NY. Contact: AERA, 1230 17th St. NW, Washington, DC 20036-3078; (202) 223-9485, Fax (202) 775-1824, Web: www.aera.net
- Northeast Conference on the Teaching of Foreign Languages (NECTFL)**, 27–29 March, New York, NY. Contact: Northeast Conference, Dickinson College, PO Box 1773, Carlisle, PA 17013-2896; (717) 245-1977, Fax (717) 245-1976, Email: nectfl@dickinson.edu Web: www.nectfl.org
- American Association for Applied Linguistics (AAAL)**, 29 March – 2 April, Washington, DC. Contact: AAAL, 3416 Primm Lane, Birmingham, AL 35216; (205) 824-7700, Fax (205) 823-2760; Email: aaal@primemanagement.net Web: www.aal.org
- Teachers of English to Speakers of Other Languages (TESOL)**, 2–5 April, New York City, NY. Contact: TESOL, 700 S. Washington Street, Suite 200, Alexandria, VA 22314; (703) 836-0774, Fax (703) 836-7864, Email: info@tesol.org Web: www.tesol.org
- Southern Conference on Language Teaching (SCOLT)**, 3–5 April, Myrtle Beach, SC. Contact: Lynne McClendon, Executive Director, SCOLT, 165 Lazy Laurel Chase, Roswell, GA 30076; (770) 992-1256, Fax (770) 992-3464, Email: lynnemcc@mindspring.com Web: scolt.net
- Association for Asian Studies (AAS)**, 3–6 April, Atlanta, GA. Contact: Association for Asian Studies, Inc., 1021 East Huron Street, Ann Arbor, MI 48104; (734) 665-2490, Fax (734) 665-3801, Web: www.aasianst.org
- National Council of Less Commonly Taught Languages (NCOLCTL)**, 25–27 April, Madison, WI. Contact: NCOLCTL, University of Wisconsin-Madison, 4231 Humanities Building, 455 N. Park Street, Madison, WI 53706; (608) 265-7903, Fax (608) 265-7904; Email: ncolctl@mailplus.wisc.edu Web: www.councilnet.org
- International Reading Association (IRA)**, 4–8 May, Atlanta, GA. Contact: International Reading Association, Headquarters Office, 800 Barksdale Rd., PO Box 8139, Newark, DE 19714-8139; Email: pubinfo@reading.org Web: www.reading.org
- American Association of Teachers of French (AATF)**, 16–19 July, Liège, Belgium. Contact: Jayne Abrate, AATF, Mailcode 4510, Southern Illinois University, Carbondale, IL 62901-4510; (618) 453-5731, Fax (618) 453-5733, Email: abrate@siu.edu Web: www.frenchteachers.org

*Courtesy of *The Modern Language Journal* (University of Wisconsin)

- AILA 2008**, 24–29 August, Essen, Germany. Contact: AILA 2008 Conference Office, Julian Sudhoff, Universität Duisburg-Essen, Campus Essen, FB Geisteswissenschaften, Anglistik, Universitätsstraße 12, 45117 Essen, Germany; +49 201-183-2727, Email: orga-aila-2008@uni-due.de Web: www.aila2008.org
- EUROCALL**, 3–6 September, Kodolányi University College, Székesfehérvár, Hungary. Contact: Zsuzsanna Angeli, Email: angeli.zsuzsanna@chello.hu
- British Association for Applied Linguistics (BAAL)**, 11–13 September, Swansea University, UK. Contact: Web: www.baal.org.uk
- American Translators Association (ATA)**, 5–8 November, Orlando, FL. Contact: ATA, 225 Reinekers Lane, Suite 590, Alexandria, VA 22314; (703) 683-6100, Fax (703) 683-6122, Email: conference@atanet.org Web: www.atanet.org
- African Studies Association (ASA)**, 13–16 November, Chicago, IL. Contact: Kimme Carlos, Annual Meeting Coordinator, Rutgers University, Douglass Campus, 132 George Street, New Brunswick, NJ 08901-1400; (732) 932-8173, Fax (732) 932-3394, Email: asaamc@rci.rutgers.edu Web: www.africanstudies.org
- American Council on the Teaching of Foreign Languages (ACTFL)**, 21–23 November, Orlando, FL. Contact: ACTFL, 700 S. Washington St., Suite 210, Alexandria, VA 22314; (703) 894-2900, Fax (703) 894-2905, Email: headquarters@actfl.org Web: www.actfl.org
- American Association of Teachers of German (AATG)**, 21–23 November, Orlando, FL. Contact: AATG, 112 Haddontowne Court #104, Cherry Hill, NJ 08034; (856) 795-5553, Fax (856) 795-9398, Email: headquarters@aatg.org Web: www.aatg.org
- American Association of Teachers of Italian (AATI)**, 21–23 November, Orlando, FL. Contact: AATI, Edoardo Lebano, Department of French and Italian, Indiana University, Ballentine 642, Blomington, IN 47405; (812) 855-2508, Fax (812) 855-8877, Email: elebano@hotmail.com
- Chinese Language Teachers Association (CLTA)**, 21–23 November, Orlando, FL. Contact: CLTA, Cynthia Ning, Executive Director, 417 Moore Hall, 1890 East-West Road, University of Hawaii, Honolulu, HI 96822; (808) 956-2692, Fax (808) 956-2682, Email: cyndy@hawaii.edu Web: clta.osu.edu
- National Network for Early Language Learning (NNELL)**, 21–23 November, Orlando, FL. Contact: Mary Lynn Redmond, NNELL, PO Box 7266, B 201 Tribble Hall, Wake Forest University, Winston-Salem, NC 27109; Email: nnell@wfu.edu Web: www.nnell.org

2009 Events

- International Reading Association (IRA)**, 21–25 February, Phoenix, AZ. Contact: International Reading Association, Headquarters Office, 800 Barksdale Rd., PO Box 8139, Newark, DE 19714-8139; Email: pubinfo@reading.org Web: www.reading.org
- Southern Conference on Language Teaching (SCOLT)**, 5–7 March, Atlanta, GA. Contact: Lynne McClendon, Executive Director, SCOLT, 165 Lazy Laurel Chase, Roswell, GA 30076; (770) 992-1256, Fax (770) 992-3464, Email: lynnemcc@mindspring.com Web: scolt.net
- Central States Conference on the Teaching of Foreign Languages**, 19–21 March, Chicago, IL. Contact: Patrick T. Raven, Executive Director, CSCTFL, PO Box 251, Milwaukee, WI 53201-0251; (414) 405-4645, Fax (414) 276-4650, Email: CSCTFL@aol.com Web: www.csctfl.org

- Teachers of English to Speakers of Other Languages (TESOL)**, 25–28 March, Denver, CO. Contact: TESOL, 700 S. Washington Street, Suite 200, Alexandria, VA 22314; (703) 836-0774, Fax (703) 836-7864, Email: info@tesol.org Web: www.tesol.org
- Association for Asian Studies (AAS)**, 26–29 March, Chicago, IL: Contact: Association for Asian Studies, Inc., 1021 East Huron Street, Ann Arbor, MI 48104; (734) 665-2490, Fax (734) 665-3801, Web: www.aasianst.org
- American Educational Research Association (AERA)**, 13–17 April, San Diego, CA. Contact: AERA, 1230 17th St. NW, Washington, DC 20036-3078; (202) 223-9485, Fax (202) 775-1824, Web: www.aera.net
- International Pragmatics Association (IPrA)**, 12–17 July, Melbourne, Australia. Contact: Web: ipra.ua.ac.be/
- American Translators Association (ATA)**, 28–31 October, New York, NY. Contact: ATA, 225 Reinekers Lane, Suite 590, Alexandria, VA 22314; (703) 683-6100, Fax (703) 683-6122, Email: conference@atanet.org Web: www.atanet.org
- African Studies Association (ASA)**, 19–22 November, New Orleans, LA. Contact: Kimme Carlos, Annual Meeting Coordinator, Rutgers University, Douglass Campus, 132 George Street, New Brunswick, NJ 08901-1400; (732) 932-8173, Fax (732) 932-3394, Email: asaamc@rci.rutgers.edu Web: www.africanstudies.org
- American Council on the Teaching of Foreign Languages (ACTFL)**, 20–22 November, San Diego, CA. Contact: ACTFL, 700 S. Washington St., Suite 210, Alexandria, VA 22314; (703) 894-2900, Fax (703) 894-2905, Email: headquarters@actfl.org Web: www.actfl.org
- American Association of Teachers of German (AATG)**, 20–22 November, San Diego, CA. Contact: AATG, 112 Haddontowne Court #104, Cherry Hill, NJ 08034; (856) 795-5553, Fax (856) 795-9398, Email: headquarters@aatg.org Web: www.aatg.org
- American Association of Teachers of Italian (AATI)**, 20–22 November, San Diego, CA. Contact: AATI, Edoardo Lebano, Department of French and Italian, Indiana University, Ballentine 642, Blomington, IN 47405; (812) 855-2508, Fax (812) 855-8877, Email: elebano@hotmail.com
- Chinese Language Teachers Association (CLTA)**, 20–22 November, San Diego, CA. Contact: CLTA, Cynthia Ning, Executive Director, 417 Moore Hall, 1890 East-West Road, University of Hawaii, Honolulu, HI 96822; (808) 956-2692, Fax (808) 956-2682, Email: cyndy@hawaii.edu Web: clta.osu.edu
- National Network for Early Language Learning (NNELL)**, 20–22 November, San Diego, CA. Contact: Mary Lynn Redmond, NNELL, PO Box 7266, B 201 Tribble Hall, Wake Forest University, Winston-Salem, NC 27109; Email: nnell@wfu.edu Web: www.nnell.org

Information for Contributors

Statement of Purpose

The purpose of *Applied Language Learning (ALL)* is to increase and promote professional communication within the Defense Language Program and academic communities on adult language learning for functional purposes.

Submission of Manuscripts

The Editor encourages the submission of research and review manuscripts from such disciplines as: (1) instructional methods and techniques; (2) curriculum and materials development; (3) testing and evaluation; (4) implications and applications of research from related fields such as linguistics, education, communication, psychology, and social sciences; (5) assessment of needs within the profession.

Research Article

Divide your manuscript into the following sections:

- Abstract
 - Introduction
 - Method
 - Results
 - Discussion
 - Conclusion
 - Appendices
 - Notes
 - References
 - Acknowledgments
 - Author

Abstract

Identify the purpose of the article, provide an overview of the content, and suggest findings in an abstract of not more than 200 words.

Introduction

In a few paragraphs, state the purpose of the study and relate it to the hypothesis and the experimental design. Point out the theoretical implications of the study and relate them to previous work in the area.

Next, under the subsection *Literature Review*, discuss work that had a direct impact on your study. Cite only research pertinent to a specific issue and avoid references with only tangential or general significance. Emphasize pertinent findings and relevant methodological issues. Provide the logical continuity between previous and present work. Whenever appropriate, treat controversial issues fairly. You may state that certain studies support one conclusion and others challenge or contradict it.

Method

Describe how you conducted the study. Give a brief synopsis of the method. Next develop the subsections pertaining to the *participants*, the *materials*, and the *procedure*.

Participants. Identify the number and type of participants. Specify how they were selected and how many participated in each experiment. Provide major demographic characteristics such as age, sex, geographic location, and institutional affiliation. Identify the number of experiment dropouts and the reasons they did not continue.

Materials. Describe briefly the materials used and their function in the experiment.

Procedure. Describe each step in the conduct of the research. Include the instructions to the participants, the formation of the groups, and the specific experimental manipulations.

Results

First state the results. Next describe them in sufficient detail to justify the findings. Mention all relevant results, including those that run counter to the hypothesis.

Tables and figures. Prepare tables to present exact values. Use tables sparingly. Sometimes you can present data more efficiently in a few sentences than in a table. Avoid developing tables for information already presented in other places. Prepare figures to illustrate key interactions, major interdependencies, and general comparisons. Indicate to the reader what to look for in tables and figures.

Discussion

Express your support or nonsupport for the original hypothesis. Next examine, interpret, and qualify the results and draw inferences from them. Do not repeat old statements: Create new statements that further contribute to your position and to readers understanding of it.

Conclusion

Succinctly describe the contribution of the study to the field. State how it has helped to resolve the original problem. Identify conclusions and theoretical implications that can be drawn from your study.

Appendices

Place detailed information (for example, a table, lists of words, or a sample of a questionnaire) that would be distracting to read in the main body of the article in the appendices.

Notes

Use them for substantive information only, and number them serially throughout the manuscript. They all should be listed on a separate page entitled *Notes*.

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Submit on a separate page of the manuscript a list of references with the centered heading: *References*. Arrange the entries alphabetically by surname of authors. Review the format for bibliographic entries of references in the following sample:

- Dulay, H., & Burt, M. (1974). Errors and strategies in child second language acquisition. *TESOL Quarterly*, 16(1), 93-95.
- Harris, D. P. (1969). *Testing English as a second language*. New York: McGraw-Hill.

List all works cited in the manuscripts in *References*, and conversely, cite all works included in *References* in the manuscript. Include in reference citations in the text of the manuscript the name of the author of the work cited, the date of the work, and when quoting, the page numbers on which the materials that you are quoting originally appeared, e.g., (Jones, 1982, pp. 235-238).

Acknowledgments

Identify colleagues who contributed to the study and assisted you in the writing process.

Author

Type the title of the article and the author's name on a separate page to ensure anonymity in the review process. Prepare an autobiographical note indicating: full name, position, department, institution, mailing address, and specialization(s). Example follows:

JANE C. DOE, Assistant Professor, Foreign Language Education, University of America, 226 N. Madison St., Madison, WI 55306. Specializations: foreign language acquisition, curriculum studies.

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It should describe, discuss, and evaluate several publications that fall into a topical category in foreign language education. The relative significance of the publications in the context of teaching realms should be pointed out. A review article should be 15 to 20 double-spaced pages.

Review

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Manuscripts will be acknowledged by the editor upon receipt and subsequently sent to at least two reviewers whose area of expertise includes the subject of the manuscript. *Applied Language Learning* uses the blind review system. The names of reviewers will be published in the journal annually.

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Notes

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