

APPLIED LANGUAGE LEARNING



Applied Language Learning



2011

VOLUME 21

NUMBERS 1 & 2

VOLUME 21 · NUMBERS 1 & 2

*Applied
Language
Learning*

Lidia Woytak
Editor

Teresa Gryminska
Associate Editor

Volume 21

Numbers 1 & 2

Applied Language Learning

Volume 21, Numbers 1 & 2

The mission of Professional Bulletin 65, *Applied Language Learning* (US ISSN 1041-679X and ISSN 1041-6791 for the online version), is to provide a forum for the exchange of ideas and information on instructional methods and techniques, curriculum and materials development, assessment of needs within the profession, testing and evaluation, and implications and applications of research from related fields such as linguistics, education, communications, psychology, and the social sciences.

Applied Language Learning, published semiannually by the Defense Language Institute Foreign Language Center and Presidio of Monterey, presents professional information. The views expressed herein are those of the authors, not the Department of Defense or its elements. The content does not necessarily reflect the official US Army position and does not change or supersede any information in official US Army publications. *Applied Language Learning* reserves the right to edit material.

Further reproduction is not advisable. Whenever copyrighted materials are reproduced in this publication, copyright release has ordinarily been obtained only for use in this specific issue. Requests for reprints should be directed to the authors.

Availability

To access *Applied Language Learning* on the Internet type:

<http://www.dliflc.edu/publications.aspx>

Additionally, you may obtain the journal on microfilm from ERIC Clearinghouse on Language and Linguistics, Center for Applied Linguistics, 1118 22nd Street, NW, Washington, DC 20037.

Bulk-rate postage is paid at DLIFLC. The basis of official distribution is one copy per training instructor and one per five military linguists.

Postmaster

Send change-of-address information to:

Applied Language Learning
Defense Language Institute Foreign Language Center
Presidio of Monterey, CA 93944-5006

United Parcel Customers

Location is:

Applied Language Learning
Bldg. 420, Room 122
Presidio of Monterey, CA 93944-5006

Readers

Contact Editor, Dr. Woytak (ATFL-AJ), *Applied Language Learning*
Defense Language Institute Foreign Language Center
Presidio of Monterey, CA 93944-5006
E-mail: aj@us.army.mil
Telephone: (831) 242-5638 DSN: 768-5638
Fax: (831) 242-5850

Cover Design
Printing Coordinator

Barney Inada
Tom Colin

Applied Language Learning

2011

Volume 21

Numbers 1 & 2

Articles

- 1 Metacognition in English as a Foreign Language Pronunciation Learning Among Chinese Tertiary Learners
Lei He
- 29 The Effect of Explicit Instruction versus Exposure Only on ESL Learners' Ability to Recognize, Use, and Recall Phrasal Verbs
Julina A. Magnusson and C. Ray Graham
- 53 The Teaching of Second Language Pronunciation through Processing Instruction
Manuela Gonzalez-Bueno and Marcela Quintana-Lara

Reviews

- 79 Methodology and Materials Design in Language Teaching: Current Perceptions and Practices and their Implications
.....Gordon Jackson
- 87 Language Learning and Study Abroad: A Critical Reading of Research.....Ashlie Henery

General Information

- 89 ALL Index
- 97 Calendar of Events
- 101 Information for Contributors

From the Editor

Reviewers for *Applied Language Learning*

The individuals listed below served as reviewers of manuscripts submitted to *Academic Journals including Applied language Learning* in 2010 and 2011. We express our gratitude for expert service to:

Christine M. Campbell
*Defense Language Institute
Foreign Language Center*

Marianne Celce-Murcia
*University of California
Los Angeles*

Andrew Cohen
University of Minnesota

Tracey M. Derwing
*University of Alberta
Edmonton*

Dan Douglas
Iowa State University

Donald Fischer
*Defense Language Institute
Foreign Language Center*

Luba Grant
*Defense Language Institute
Foreign Language Center*

Teresa Gryminska
*Defense Language Institute
Foreign Language Center*

John S. Hedgcock
*Monterey Institute of
International Studies*

Todd A Hernandez
Markette University

Eli Hinkel
Seattle University

Mika Hoffman
*Defense Language Institute
Foreign Language Center*

Gary Hughes
*Defense Language Institute
Foreign Language Center*

Gordon Jackson
*Defense Language Institute
Foreign Language Center*

James F. Lee
University of Indiana

John Lett
*Defense Language Institute
Foreign Language Center*

Paul Nation
*Victoria University of
Wellington*

Maria Parker
Duke University

Thomas Parry
*Defense Language Institute
Foreign Language Center*

Seumas P. Rogan
*Defense Language Institute
Foreign Language Center*

David J. Shook
*Georgia Institute of
Technology*

Richard Sparks
College of Mount Saint Joseph

Charles W. Stansfield
Second Language Testing

Metacognition in EFL Pronunciation Learning among Chinese Tertiary Learners

Lei He
Renmin University of China

This study explores Chinese learners' metacognition in EFL pronunciation learning as well as the effectiveness of helping the learners to improve their English pronunciation by metacognitive instructions. By means of preliminary interviews and a questionnaire survey carried out in seven universities across mainland China, six factors of metacognition in EFL pronunciation were extracted via factor analysis. These were Task Knowledge of Pronunciation Learning; Person Knowledge of Pronunciation Learning; Positive Experiences in Pronunciation Learning; Motivating Experiences in Pronunciation Learning; Learning Pronunciation by External Assistance; and Learning Pronunciation by Self-Effort. Based on Flavell's model of metacognition, the metacognitive model of pronunciation learning was constructed. In addition, following an eight-week metacognitive instruction with weekly journals kept by the participants, dynamic changes in metacognition were discovered. Moreover, as the results of pronunciation tests before and after the instruction showed, the participants manifested increased pronunciation proficiency after the instruction, suggesting that metacognitive instructions may be effective in improving learners' pronunciation in a foreign language. Limitations of the study are discussed, and suggestions for further research are made.

Metacognition was first proposed by American developmental psychologist John H. Flavell in the 1970s. Ever since the late 1980s, researchers in applied linguistics and second language acquisition (abbreviated as SLA henceforth) began to take interest in learners' metacognition, especially metacognitive strategies in learning a second or foreign language as a whole, or specific skill areas, such as listening, reading and writing (e.g., Goh, 1997; O'Malley & Chamot, 1990; Oxford, 1990; Vandergrift, 2002; Victori & Lockhart, 1995; Wenden, 1987, 1998, 1999, 2001; Wu, 2006, 2008; Wu & Liu 2004; Zhang, 2000, 2001, 2010; Zhang & Wu, 2009; Zhang & Zhang, 2008). Meanwhile, investigations into second language pronunciation were carried out in second language phonology with many influential models and theories being proposed (see Edwards & Zampini, 2008 for a review). Yet pronunciation-related studies from non-linguistic perspectives have been of a lower profile (for a review of age and pronunciation learning, see Flege, Yeni-Komshian & Liu, 1999 and Ioup, 2008; for general psycho-sociological factors and pronunciation, see, for example, Cumingham-Anderson, 1997 and Guiora, Beit-Hallahmi, Brannon, Dull & Scovel, 1972; for linguistic context and pronunciation, see Dickerson, 1975; and for self-concept and second language (abbreviated as L2 hereafter) pronunciation, see Pan, 2003 and Wang, 2004a, 2004b). Nonetheless, metacognition in L2 pronunciation learning has not been studied. This paper aims to investigate metacognition in English as a Foreign Language (abbreviated as EFL hereafter) pronunciation learning by both a cross-sectional and a longitudinal study, which were preceded by a preliminary one. A metacognitive model of EFL pronunciation is proposed, and dynamic development of learners' metacognition is discovered.

Literature Review

Metacognition and its Components

Flavell (1979) defined metacognition as “knowledge and cognition about cognitive phenomena,” and the “monitoring of their own memory, comprehension and other cognitive enterprises” (p. 906). Following Flavell, Kluwe (1987) viewed metacognition as “a child’s declarative knowledge about cognition, for example their own cognitive activities and abilities, and procedural knowledge, processes directed at the control and regulation of one’s own thinking” (p. 31). Brown (1987) described metacognition as “understanding of knowledge,” and claimed this understanding “can be reflected in either effective use or overt description of the knowledge in question” (p. 31). Paris and his colleagues identified two essential features in their definition of metacognition – self-appraisal and self-management – the former being “reflections about learners’ understanding, abilities and affective state during the learning process,” and the latter, “mental processes that help to ‘orchestrate aspects of problem solving’” (Paris & Jacobs, 1984; Cross & Paris, 1988; Paris & Winograd, 1990 cited in Georghiades, 2004, p. 365). Nelson and Narens (1994) emphasized the control and monitoring of the cognitive processes by devising a model in which control and monitoring mediate the beginning as well as terminating states of the cognitive process (meta-level and object-level).

Although definitions given by different researchers vary, common features of metacognition can be identified. Firstly, metacognition encompasses learners’ knowledge of the cognitive process – for instance, “knowledge and cognition about cognitive phenomena” (Flavell 1979, p. 906), “declarative knowledge about cognition” (Kluwe, 1987, p. 31), or “self-appraisal” (Paris & Jacobs, 1984; Cross & Paris, 1988; Paris & Winograd, 1990 cited in Georghiades, 2004, p. 365). Secondly, apart from learners’ knowledge of the cognitive process, metacognition also includes active control, monitoring and regulation over cognitive activities (Flavell, 1979; Brown, 1987; Kluwe, 1987; Nelson & Narens, 1994).

Models of metacognition have been proposed, such as Flavell (1979, 1987) and Nelson and Narens (1994). However, Flavell’s model has enjoyed much more popularity and has been cited by many applied linguists (e.g., Goh, 1997; Vandergrift, 2002; Victori & Lockhart, 1995; Wenden, 1987, 1998, 1999, 2001; Wu, 2006, 2008; Zhang, 2000, 2001); therefore, its components are introduced in detail.

According to Flavell (1979), metacognition is composed of metacognitive knowledge and metacognitive experiences. “Metacognitive knowledge consists primarily of knowledge or beliefs about what factors or variables act and interact in what ways to affect the course and outcome of cognitive enterprise,” and such knowledge encompasses three categories – namely person, task and strategy (p. 907). Metacognitive experiences refer to “any conscious cognitive or affective experiences that accompany and pertain to any intellectual enterprise” (p. 906).

Person knowledge refers to “the kind of acquired knowledge and beliefs that concern what human beings are like as cognitive organisms,” both intraindividually and interindividually (Flavell, 1987, p. 22). Task knowledge refers to something learned by the individual about “how the nature of the information encountered affects and constrains how one should deal with it” (Flavell, 1987, p. 22). It is further categorized into knowledge about “the information available to [the individual] during a cognitive enterprise” and “task demands or goals” (Flavell, 1979, p. 907). Strategy knowledge is the learner’s belief of “what strategies are likely to be effective in achieving what subgoals and goals in what sorts of cognitive undertakings” (Flavell, 1979, p. 907). According to Flavell (1987), person, task and strategy variables are not discrete from each other; they interact.

Unlike experiences of other kinds, metacognitive experiences “have to do with some cognitive endeavor or enterprise, most frequently a current, ongoing one” (Flavell, 1987, p. 24). They can be “brief or lengthy in duration,” “simple or complex in content,” and “before, after or during a cognitive enterprise” (Flavell, 1979, p. 908). Moreover,

metacognitive experiences are “especially likely to occur in situations that stimulate a lot of careful, highly conscious thinking” (Flavell, 1979, p. 908). Flavell (1979) also claimed that metacognitive experiences and knowledge overlap. For instance, while solving a stubborn problem, one may recall another similar problem having been solved. In addition, metacognitive experiences can impact on cognitive goals, tasks, actions or strategies, and metacognitive knowledge. They not only can lead the learner to “establish new goals and to revise or abandon old ones” but also “affect [the learner’s] metacognitive base by adding to it, deleting from it, or revising it” (Flavell, 1979, p. 908). Furthermore, metacognitive experiences can activate both cognitive and metacognitive strategies (Flavell, 1979).

Metacognition in Second Language Acquisition Research

Studies on metacognition in second language acquisition can be classified into two categories: confirmatory studies of Flavell’s metacognitive model and empirical studies of metacognitive strategies. Confirmatory studies of Flavell’s metacognitive model were conducted from two perspectives: the learning of a second language in general and the learning of different language skill areas.

Wenden (1987) is the first scholar who applied the theory of metacognition in the field of second language acquisition and teaching. In a review article of metacognitive knowledge and language learning, she discussed the definitions and classification of metacognitive knowledge in Flavell’s model (Wenden, 1998). She claimed that metacognition plays a vital role in planning, monitoring, and evaluating the learning process, and suggested that teachers should try to understand learners’ beliefs and knowledge about language learning. Moreover, teachers should also try to help learners be more reflective and self-directive in second language learning. In another study, Wenden (2001) analyzed introspective and retrospective learner accounts to explore the role of metacognitive knowledge in language learning. The findings showed that metacognitive knowledge is a prerequisite to task analysis and monitoring. Task analysis guides pre-task planning (understanding task purpose, task type and task demands), and task monitoring oversees task completion (involving five processes – i.e., self-observation, assessment, deciding whether to take action, deciding how and when to take action, implementing the action). Both studies carried out by Wenden (1998, 2001) explained how metacognitive knowledge takes control over the processes of learning a second language in general, yet metacognitive experiences and their roles are not specified. Other researchers confirmed Flavell’s model of metacognition from different language skill areas, especially reading and writing (e.g., Wu, 2006, 2008; Wu & Liu, 2004; Zhang, 2000). Wu (2006) categorized metacognitive experiences in EFL writing into positive experiences and negative experiences, which filled the gap of Chinese EFL research in the less explored area of metacognitive experiences.

A large portion of metacognition related studies in SLA investigated metacognitive strategies in language learning (several influential studies being: O’Malley & Chamot, 1990; Oxford, 1990; Wen, 1993). They approached metacognitive strategies within the bigger context of learning strategies, especially with reference to cognitive strategies. Although consensus has not been reached on the exact specifications of metacognitive and cognitive strategies, researchers have agreed upon the planning, monitoring and evaluation functions of metacognitive strategies. Learners can plan and monitor their language learning tasks and evaluate their learning activities, and thus, take control over their own cognition in learning processes. Empirical studies suggested that more proficient learners are more likely to use metacognitive strategies than their less proficient counterparts in the learning of different language skills (e.g., Anderson & Vandergrift, 1996; Goh, 1997; Liu, 2004; Yuan & Xiao, 2006).

Methodology

Three empirical studies were carried out to answer the following three research questions:

- 1) What are the metacognitive components in EFL pronunciation learning?
- 2) To what extent can metacognitive instruction help learners raise metacognitive awareness in pronunciation learning?
- 3) Does learners' pronunciation improve with raised metacognitive awareness?

The preliminary study was conducted to inform and refine subsequent cross-sectional and longitudinal studies, which aimed at, on the one hand, exploring the metacognitive components in EFL pronunciation learning, and on the other hand, delving into the effects of metacognitive instruction on the improvement of metacognitive awareness and pronunciation proficiency.

Preliminary Study

A dearth of studies on metacognition in EFL pronunciation learning requires a preliminary study to provide relevant data concerning learners' conceptions of pronunciation learning on which further research can be more solidly based.

Participants

Altogether 11 students forming a convenient sample participated in this preliminary stage of research. Among them, four were non-English majors and seven were English majors. With the exception of two sophomore English majors, the students were in their third year. The four non-English majors participated in an unstructured group interview, whereas the seven English majors were interviewed individually with a semi-structured interview checklist (Appendix A). The students were selected with the help of a school professor, who informed them about the study. They participated voluntarily, each receiving an honorarium.

Instruments

Both an unstructured group interview and semi-structured interviews were administered at this stage to have the research better oriented in the follow-up cross-sectional and longitudinal studies. Through such interviews, the researcher can "probe for information and obtain data that often have not been foreseen" (Seliger & Shohamy, 1989).

The unstructured group interview was conducted prior to the semi-structured interviews to lay the foundation for designing the semi-structured interview checklist (Appendix A). The participants were greeted with phatic questions before the interviews started, and a campus café was chosen as the research venue to ensure that they were relaxed and comfortable, so as to avoid the "inequitable relationship" between the researcher and the participants mentioned in Nunan (1992). Therefore, more natural and authentic data could be collected.

The questions in both the unstructured and semi-structured interviews were posed in increasing complexity; i.e., factual and objective questions came before specific and subjective ones, thereby enabling the interviewees to get psychologically prepared to the incremental difficulty of the interviews.

The unstructured group interview lasted for 65 minutes, and each of the semi-structured interviews went on for 17 minutes on average. All interviews were recorded with the prior consent of all of the participants and were transcribed verbatim afterwards to ensure the reliability of the interviews (Brown, 2001).

Data Analysis and Results

Both the unstructured and semi-structured interview transcripts were analyzed in

terms of recurring themes. The recurring themes of both types of interviews were reported cumulatively. Altogether five recurring themes with their sub-dimensions concerning the participants' conceptions of English pronunciation learning were generalized with sense groups as units of analysis in Table 1.

Table 1. *Recurring Themes in Both Types of Interviews*

<i>Recurring Themes</i>	<i>Sub-Dimensions</i>	<i>Mentions as %</i>
Motivation	1. English pronunciation is very important.	100.0
	2. Self-directed practice is important to pronunciation learning.	72.7
	3. English learning is enjoyable.	63.6
	4. I learn English simply because I love it.	63.6
	5. I am interested in English.	54.5
	6. I learn English because I have to pass tests.	45.5
Learning strategies	7. I learn English pronunciation by watching movies.	90.9
	8. I learn English pronunciation by imitation.	81.8
	9. I seek help from others when I come across difficulties in pronunciation.	54.5
	10. I learn English pronunciation by communicating with native speakers.	36.4
Starting age/quality of early English education	11. The earlier one begins English learning, the more likely one is to succeed in developing good English pronunciation.	72.2
	12. The quality of early English education is crucial in shaping one's English pronunciation.	72.2
L1 transfer	13. Vernacular accents of one's mother tongue influence English pronunciation.	45.5
External factors	14. Language environment is important to acquiring good pronunciation.	63.6
	15. Instruction is important to developing good pronunciation.	45.5

Cross-Sectional Study

Participants

Altogether 357 first-year English majors participated in the cross-sectional study. They were from seven universities across the People's Republic of China. The universities were targeted in terms of university types (comprehensive universities, $N=3$; universities of science and technology, $N=4$), the economic regions they belong to (Eastern, $N=3$; Western, $N=2$; Central, $N=2$), and university statuses (ordinary universities, $N=3$; key universities, $N=4$). The selection of participants was assisted by the department authorities of the universities. All participants took part in the survey voluntarily, for which they received an honorarium. A 2(university types) \times 2(university statuses) \times 3(regions) mixed analysis of variance (ANOVA) indicated no main effects of the three factors (university types: $F_{(1,345)} = 1.25, ns$; university statuses: $F_{(1,345)} = 1.68, ns$; regions: $F_{(2,345)} = 2.11, ns$). No significant interactions were found for university types \times university statuses ($F_{(1,345)} = 1.71, ns$), university types \times regions ($F_{(2,345)} = 1.92, ns$), university statuses \times regions ($F_{(2,345)} = 1.08, ns$), nor university types \times university statuses \times regions ($F_{(2,345)} = 2.23, ns$), either. Thus, the participants of this study were from the same population.

The participants were aged between 16 and 21 years, with the average age and the mode age being 19.6 and 19, respectively. Among the participants, 94 were male (26.3%), and 263 were female (73.7%). The disproportionate number of female participants is due to the fact that many more female students are willing to become English majors than their male counterparts after secondary education.

Instruments

Design of the Questionnaire. "The Questionnaire of Metacognition in EFL Pronunciation Learning for Chinese Learners" (Appendix B) was designed in three steps. Initially, Flavell's (1979, 1987) model of metacognition was taken as the theoretical basis. Secondly, results of the preliminary study were taken into consideration in constructing the "Theoretical Framework" of the questionnaire (Table 2). Thirdly, questionnaires and research results of other relevant studies (Pan, 2003; Peterson, 2000; Wu, 2006) were referenced while writing the items.

Readers may notice that some categories are more full than others. This is because the items were designed on the basis of existing literature and the results of the preliminary study. Some categories were less talked about than others in the first place, resulting in categories of varied sizes. The items in this questionnaire were written in Chinese. With the exception of items of multiple-select and binary choices, all items were measured by a five-point Likert scale, anchored at one end by 1 = *Never true for me* and at the other end by 5 = *Always true for me*. Item 10 was an open-ended question, aiming to explore how language environment influences pronunciation proficiency among those respondents who had been in an English speaking country before. Regrettably, only two respondents reported to have such experience, and they failed to give adequate information.

A detailed survey of pronunciation learning difficulties was affixed at the end of the questionnaire. Respondents were expected to rate each of the individual phonemes¹ and suprasegmental features (stress, liaison, weak-forms, rhythm, assimilation, and intonation) on a five-point Likert scale (1 = *very easy for me*; 5 = *very difficult for me*). In addition, the International Phonetic Alphabet (IPA) symbols used in the questionnaire were the ones adopted in Wells (2000). Each phoneme was illustrated by an example word to avoid misinterpretation by the respondents, albeit this set of symbols are now widely used in textbooks in China. In this paper, symbols of the American Phonetic Alphabet (APA) are also provided in parentheses where the IPA and APA symbols differ in denoting the same phoneme to cater to different preferences of the readers.

Table 2. Theoretical Framework and Items Distribution in the Questionnaire

Item Categories		Items
General Information	Motivation in learning English	1, 5
	Ideas on English pronunciation and the learning of it	2-4, 9, 10
	Ideas on a stand-alone course of English pronunciation	6-8
Person Knowledge	Ideas about self English pronunciation learning	11, 13-17, 20, 21
	Ideas about other's English pronunciation learning	12, 18, 19
Task Knowledge	Ideas about the standards of good English pronunciation	22-27
	Ideas about the significance of good English pronunciation	28-36
Strategy Knowledge	Self-effort in English pronunciation learning	37-48, 51-53, 56, 57
	Seeking help from others in English pronunciation learning	49, 50, 54, 55
Metacognitive Experiences	Positive and negative experiences in English pronunciation learning	58, 59, 60
	Confidence in English pronunciation learning	61-64

Data Analysis. Items were coded before inputting the data into SPSS 16.0 for analysis. Items 27 and 57 were negative in meaning and, therefore, were reversely scored. The reliability of the questionnaire was confirmed before the exploratory factor analysis for the exploration of metacognitive components of pronunciation learning.

1) Reliability of the Questionnaire. Item analysis (Qin, 2003) was carried out before the normality test and internal reliability examinations. When computing the total scores of all the 357 respondents, the first 25% ($N = 92$) having the highest scores (≥ 218 ; Max = 253) were labeled as the high-score group; and the last 25% ($N = 61$) with the lowest scores (≤ 190 ; Min = 155) were labeled as the low-score group. Independent samples t -tests were administered to target the items failing to discriminate between the two groups. The t -values of Item 13 ($t = .40, df = 152; p > .05$, two-tailed) and Item 58 ($t = -1.97, df = 145.30; p > .05$, two-tailed) were not significant; hence, these items did not discriminate between the high- and low-score groups. They were discarded in further analysis.

The Kolmogorov-Smirnov test confirmed that the data are normally distributed ($Z = .709, p = .697$), meeting the normality assumption of factor analysis.

Furthermore, Cronbach's alpha coefficients were calculated to corroborate the questionnaire reliability. The parts of General Information ($\alpha = .715$), Person Knowledge ($\alpha = .690$), Task Knowledge ($\alpha = .841$), Strategy Knowledge ($\alpha = .811$), and Metacognitive Experiences ($\alpha = .708$) as well as the whole questionnaire ($\alpha = .862$) showed satisfactory internal consistency (Dörnyei, 2003).

2) Exploratory Factor Analysis. The values of multivariate normality and sampling adequacy obtained by the Kaiser-Meyer-Olkin (KMO) test and Bartlett's test of sphericity ($KMO = .814 > .80$; $\chi^2_{(1540)} = 7273.90, p < .001$) indicated that the data were suitable for factor analysis. Principal component analysis was conducted with Varimax rotation to reduce dimensions. Other types of analysis, such as principle factor analysis, were avoided because this study is based on an existing model of metacognition (Flavell, 1979), and a study of structure in the data would not be necessary. Items with loadings less than .35 were eliminated, and six factors were obtained. The eigenvalues of the factors all exceeded 1.0, and the six factors explained 35.70% of the total variance. The author did not include more factors to reach the cut-off of 50% of explained variance since they were hardly informative. The naming of the factors is detailed in "Results and discussion of the cross-sectional study."

Longitudinal Study

Participants

Altogether 12 first-year English majors at Renmin University of China participated in the longitudinal study voluntarily because they were interested in metacognition and pronunciation learning after the questionnaire survey. Six of them (one male and five females, coded as A-F) were in the instruction group, and another six (two males and four females, coded as G-L) formed the natural group. The homogeneity of the two groups was very likely due to descriptively similar performance in the pre-test before the eight-week metacognitive instruction of pronunciation learning. However, because of health reasons, Participant C missed the second and fourth sessions of the instruction, and Participants D and F missed the second and third sessions, respectively. Readers should be aware that the longitudinal study was not an experiment in a strict sense due to small sample sizes (thus, terms like "experimental" and "control groups" are avoided). As a result, strong inferences from the statistical part of the study should not be made.

Instruments

1. *Eight-Week Instruction.* Altogether seven sessions were organized to explore if there was any dynamic progress of metacognitive awareness in EFL pronunciation learning. The instruction took Flavell's (1979, 1987) model of metacognition as the theoretical basis in reference to O'Malley and Chamot's (1990) classification of learning strategies and Peterson's (2000) categorization of pronunciation learning strategies.

Both segmental and suprasegmental features weighed equal in the instruction. The most difficult aspects of pronunciation learning (/ŋ, ð, θ, ʃ, dʒ (j), ʒ (ž)/ and all suprasegmental features) rated by the questionnaire respondents in the cross-sectional study were treated with special attention.

Table 3. *Instructional Principles of Metacognition in EFL Pronunciation*

Metacognitive Knowledge	Task Knowledge	Helping the participants have a better understanding of EFL pronunciation and the standards of good pronunciation.
	Person Knowledge	Helping the participants be more aware of the strengths and weaknesses in their own as well as others' pronunciation.
	Strategy Knowledge	Helping the participants to: -acquire the rudiments of the English sound system; -set individualized goals and objectives; -plan pronunciation learning tasks. Encouraging the participants to: -monitor their own pronunciation learning; -evaluate their own as well as others' pronunciation; -seek help in pronunciation learning.
Metacognitive Experiences		Helping the participants be aware of their experiences in pronunciation learning, and adjust their objectives and strategies accordingly.

The researcher employed the following methods to raise the participants' metacognitive awareness in pronunciation learning: introducing different aspects of English pronunciation heuristically; explaining features of English pronunciation through film clips; encouraging the participants to evaluate and compare the pronunciation of successful learners to their own; showing the participants how to plan and monitor their pronunciation learning progress; and requiring them to keep weekly journals.

2. *Weekly Journals.* The participants were required to keep weekly journals throughout the instruction to help them consciously monitor their learning experiences and identify problem areas for the achievement of their learning objectives. In addition, the journal entries provided important data to examine regarding metacognitive changes in pronunciation learning.

Guiding questions (Table 5) were designed to offset the argument of "lack of structure" of journals mentioned in Mackey and Gass (2005). In addition, the participants were asked to use Chinese in journal writing in order to ensure the clarity and validity of journal contents.

3. *Tests.* Two identical tests were administered to both groups before and after the instruction to see to what extent the instruction can help improve their pronunciation proficiency. According to Hewings (2004), both productive and receptive skills were tested.

A listening test designed by Wang (2005) was employed to measure the participants' receptive ability. Both segmental and suprasegmental features were targeted in the test. Altogether 60 items constitute the listening test, and one point was awarded for each correct response.

A “text read aloud” task was administered to measure productive ability because this task can tightly control the language to allow direct comparison among testees (Hewings, 2004). The “Diagnostic Passage” in Celce-Murcia, Brinton and Goodwin (1996) was utilized. The participants were required to read the text at normal speed while being recorded. However, because of personal reasons, Participant F was unable to take this productive part of the post-test. All the readings were recorded and saved into .wav format by AdobeAudition 1.5 with the sampling rate of 44 kHz.

Table 4. Results of Pre- and Post-Tests

Partici- pants	<i>Text Read Aloud</i>			<i>Listening</i>	<i>Text Read Aloud</i>			<i>Listening</i>
	<i>(Pre-Test)</i>			<i>(Pre-Test)</i>	<i>(Post-Test)</i>			<i>(Post-Test)</i>
	<i>Hol</i>	<i>Seg</i>	<i>Sup</i>		<i>Hol</i>	<i>Seg</i>	<i>Sup</i>	
A	3.25	3.00	2.50	46.00	3.63	3.25	3.25	54.00
B	2.50	2.75	2.13	49.00	2.50	3.00	2.38	52.00
C	3.25	4.00	2.88	46.00	3.00	4.25	2.88	49.00
D	3.50	3.50	3.88	46.00	4.38	4.50	3.63	52.00
E	1.75	1.63	2.00	45.00	2.13	2.38	1.88	50.00
F	1.50	2.00	1.50	46.00	--	--	--	47.00
Mean	2.63	2.81	2.48	46.33	3.13	3.78	2.80	50.67
SD	0.85	0.89	0.83	1.37	0.90	0.89	0.70	2.50
G	2.63	1.75	1.25	52.00	2.63	2.00	1.50	53.00
H	2.50	2.50	1.75	49.00	3.25	2.50	2.00	49.00
I	4.00	4.50	3.25	44.00	3.50	3.89	2.75	46.00
J	1.88	2.50	1.88	43.00	2.00	2.13	1.75	41.00
K	2.25	2.00	2.00	51.00	2.25	1.88	1.88	49.00
L	3.25	3.50	2.88	46.00	3.50	3.50	2.88	50.00
Mean	2.75	2.81	2.79	47.50	2.86	2.65	2.13	48.00
SD	0.76	0.89	1.03	3.73	0.65	0.84	0.56	4.10

Note: “Hol” refers to the holistic score, while “Seg” and “Sup” refer to the analytical scores for segmental features and suprasegmental features respectively.

Two raters experienced in teaching pronunciation to English majors (inter-rater reliabilities [Pearson’s r]: $r_{holistic} = .745$, $r_{segmental} = .746$, $r_{suprasegmental} = .739$; $p < .0001$, two-tailed) were enrolled to give both holistic scores (overall pronunciation proficiency) and analytical scores (performance in segmental and suprasegmental features) to all the sound files. The raters were blind to the group membership. Both scores were rated on a scale from 0 (hardly intelligible) to 5 (near native competence). Moreover, a plus sign (an addition of .50) and a minus sign (a subtraction of .25) were allowed to modify each score. The final scores for each participant were the mean scores of the two raters.

Results and Discussion of the Cross-Sectional Study

Metacognitive Model of EFL Pronunciation Learning

Six factors were yielded after factor analysis among the questionnaire items; these factors are the metacognitive components in EFL pronunciation learning

1. *Task Knowledge of Pronunciation Learning*. This factor consists of the items related to learners’ understanding of the beneficial effects of good pronunciation, either in language learning per se or in social life. (Items 31, 30, 33, 35, 32, 29, 28, 36 and 34. They are listed in descending order of loadings. Variance explained = 9.8%.)

2. *Person Knowledge in Pronunciation Learning*. This factor comprises self-

evaluation of pronunciation learning ability and outcomes and evaluation of other learners’ pronunciation proficiency. (Items 11, 12, 15 and 14. Variance explained = 6.1%.)

3. *Positive Experiences in Pronunciation Learning*. This factor encompasses experiences of success in pronunciation learning. (Items 61, 64, 60, 62, 63, 16, 56 and 59. Variance explained = 5.7%.)

4. *Motivating Experiences in Pronunciation Learning*. This factor addresses either learners’ motivation to learn English pronunciation or their experiences which give them impetus to improve their pronunciation. (Items 3, 1, 2, 17 and 4. Variance explained = 4.9%.)

5. *Learning Pronunciation by External Assistance*. This factor pertains to the tactics learners adopt in their pronunciation learning. For example, they may seek help from others or find learning aids, such as books and recorders. (Items 48, 50, 46, 47, 49 and 44. Variance explained = 4.8%.)

6. *Learning Pronunciation by Self-Effort*. Also concerning learning tactics, this factor is more internal in nature – i.e., the initiatives learners take to improve their pronunciation. (Items 53, 45, 20, 51 and 21. Variance explained = 4.4%.)

Based on Flavell’s (1979, 1987) model of metacognition, the six factors can be structured into a new model of EFL pronunciation learning:

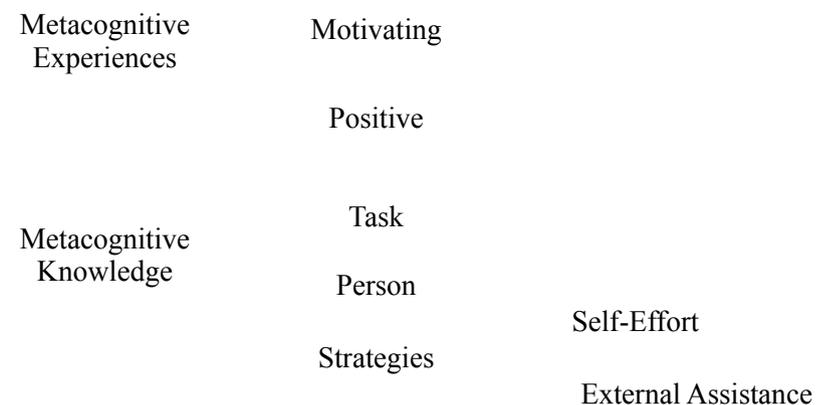


Figure 1. Metacognitive Model of EFL Pronunciation Learning.

Significance of the Metacognitive Model of EFL Pronunciation Learning

The Metacognitive Model of EFL Pronunciation Learning refines Flavell’s model of metacognition in the following aspects:

1. It clarifies the components of metacognitive experiences. In Flavell (1987), metacognitive experiences were vaguely defined as experiences “[having] to do with some cognitive endeavor or enterprise, most frequently a current, ongoing one” (pp. 22-24). Without further elaboration on the components, this definition is hardly informative or useful in actual research. The results of this study suggest that two components, Positive Experiences and Motivating Experiences, could be further specified in metacognitive experiences. Positive Experiences rest on learners’ feelings of success while completing the learning task. Such positive feelings do not originate in a vacuum but are based on conditions like adequate learning time and external assistance. As Factor 5 shows, seeking help from others is a tactic commonly adopted by learners; this bridges metacognitive

experiences with strategies. Therefore, metacognitive experiences are not isolated from other components, especially strategy knowledge. The adoption of appropriate strategies can make the learning process a more efficient one, which in turn gives learners positive experiences; and such experiences can consolidate their awareness to use such strategies.

Apart from Positive Experiences, Motivating Experiences also fall under the scope of metacognitive experiences. Motivation is an important learner variable that addresses why learners decide to embark upon a learning task, how long they are willing to sustain the activity, and how hard they are going to pursue it (Dörnyei & Skehan, 2002). It serves as an impetus in language learning. Factor 4 shows that motivational factors include a sense of enjoyment in performing the task of pronunciation learning as well as an admiration for learners with excellent pronunciation. In line with the findings of Pan (2003) and Wang (2004a, 2004b), good pronunciation enables learners to maintain a more positive self-concept and thus become more highly motivated in English learning. In this study, 243 (67.3%) among the 361 respondents mentioned that they learn English because they like the language, while a similar amount of respondents ($N=259$, 71.7%) claimed that they need English in their future careers. Therefore, this factor is not biased towards either end of integrative or instrumental motivation (Gardner & Lambert, 1959, 1972; Gardner, 1985) but is of a neutral nature. In short, from the perspectives of feelings of success and motivating impetuses, researchers can gain much insight into metacognitive experiences in pronunciation learning.

2. This model classifies Metacognitive Strategies into Self-Effort Strategies and External Assistance Strategies. This dichotomy approaches metacognitive strategies from the angle of the person variable. The strategies learners adopt either originate from what their mentality avails or from external aids when they find that external resources are available and helpful. Moreover, this classification of metacognitive strategies manifests the specific nature of pronunciation learning. Citing Scovel (1988), Ioup (2008) claimed that pronunciation was “the only part of language that was physical and demanded neuromuscular programming” (p. 41). Therefore, the way learners approach pronunciation learning cannot be identical to the learning of other linguistic aspects because learners have to be more aware of their own strengths and weaknesses in order to better control their speech organs.

Pronunciation is an intangible aspect in foreign language learning. Learners may not have a systematic and concrete perception of what it is nor how to improve their pronunciation effectively. They may rely heavily on external resources or assistance. For example, they may consult relevant books and other materials to learn more about English pronunciation (Item 46). They may also turn to others for help by asking teachers, native speakers and other students to correct their pronunciation errors (Items 50 and 49). At the same time, learners may pay attention to the manner in which others enunciate English sounds. They may watch cues such as lip shapes, which are the most notable features (Items 48 and 44). However, a native speaker or teacher with good pronunciation may not always be present when a learner is in need of assistance, so learners may choose to record their own pronunciation for comparison with standard pronunciation and then target the incongruities (Item 47).

Good pronunciation in a foreign language is a complicated neuromuscular process. In order for the movements of speech organs to be more kinesthetic, learners must constantly reflect upon their own learning progression and rectify any flaws (Item 53). Furthermore, they may summarize the rules of English pronunciation based on their reflections and learning experiences (Item 45). After learners reach a more advanced stage of learning, they may even recognize their problems in pronunciation learning and seek effective strategies to overcome these problems (Items 20 and 21).

Although the L2 has a different phonological system than the L1, the speech sounds of the two languages must be processed and produced by the same speech organs. During the initial stage of English learning, it is inevitable that learners “interpret the pronunciation of the words of the foreign language in terms of the phonological elements of their own” (Gussenhoven & Jacobs, 2005, p. 34). Once they become more advanced, learners may compare the two sound systems and avoid negative transfer (Item 51).

3. The present model modifies the “person” and “task” variables of Flavell’s metacognitive model (Flavell, 1979; 1987) in that it clarifies the components of metacognitive person and task knowledge in pronunciation learning. Flavell (1979) proposed that person knowledge “encompasses everything that you could come to believe about the nature of yourself and other people as cognitive processors” (p. 907). The vagueness of this definition made it difficult to further analyze this concept. As the items in Factor 2 show, the “person” variable not only encompasses knowledge about self (Items 11, 15 and 14) and others (Item 12) in pronunciation learning (intraindividual differences and interindividual differences in Flavell’s terminology), but it also further classifies the knowledge of self into “Self-Evaluation of Pronunciation Proficiency” (Item 11), and “Self-Understanding of Pronunciation Learning Ability” (Items 14 and 15).

The explanation of the task variable in Flavell (1979) was even more vague. Only task demands and goals were mentioned by Flavell (1979). In the present model, a new concept – “Significance of Pronunciation Learning” – was introduced. Different evaluations of the significance of pronunciation learning can result in different types of learning motivation. For example, if a learner learns English solely for the purpose of passing examinations or obtaining the required credits, he or she may not be motivated to improve pronunciation. However, if a learner learns English in order to communicate with others or has a high degree of acculturation, he or she may have a stronger motivation to improve pronunciation so as to ensure a smoother communication or sound more like a native speaker. Moreover, there might be a third group of learners, who hold that it is acceptable to speak English with a tinge of their L1. This group of learners does not highly regard the significance of pronunciation learning and thus is not motivated to embark upon pronunciation learning activities. In short, different evaluations of the significance of a learning task can result in different motivations to involve oneself in the learning task.

Strengths and Limitations of the Cross-Sectional Study

There are four key strengths of the cross-sectional study. First of all, the questionnaire was not only designed on the basis of Flavell’s model of metacognition, but it also synthesized other relevant studies. Secondly, a preliminary study was conducted to inform the questionnaire design. Thirdly, considerations were made to ensure the representativeness of the targeted sample. Respondents were selected from both key and ordinary universities, either comprehensive or technical, in the three economic regions. Lastly, the study confirmed the major components of Flavell’s model of metacognition and modified it to illustrate learners’ metacognition in pronunciation learning.

This study, nevertheless, is not free from limitations. Due to limited resources, targeted sampling was adopted instead of random sampling, thereby prohibiting generalization. Also because of limited time and resources, it was not feasible to conduct a standardized pronunciation test among all the participants in the cross-sectional study. As a result, the relationship between pronunciation proficiency and metacognitive ability cannot be explored.

Results and Discussion of the Longitudinal Study

Pronunciation Proficiency Before and After the Instruction

Tests of English pronunciation proficiency were conducted before and after the instruction sessions among both instruction and natural group participants. The scores of “text read aloud” for both pre- and post- tests are the mean scores of the two raters (See Table 4).

The means and standard deviations of the pre-test scores for both “text read aloud” and listening tasks were similar for both the instruction group ($M_{Hol} = 2.63$, $M_{Seg} = 2.81$, $M_{Sup} = 2.48$, $M_{Listening} = 46.33$; $SD_{Hol} = .85$, $SD_{Seg} = .89$, $SD_{Sup} = .83$, $SD_{Listening} = 1.37$) and the natural group ($M_{Hol} = 2.75$, $M_{Seg} = 2.81$, $M_{Sup} = 2.79$, $M_{Listening} = 47.5$; SD_{Hol}

= .76, $SD_{Seg} = .89$, $SD_{Sup} = 1.03$, $SD_{Listening} = 3.73$). However, the standard deviation of the listening task for the natural group ($SD = 3.73$) was much higher than that of the instruction group ($SD = 1.37$). This higher standard deviation resulted from a wide range between the highest and lowest scores (Max = 52.00, Min = 43.00).

The pronunciation scores of the instruction group improved after the eight-week pronunciation instruction. The means of the holistic score, segmental features score and suprasegmental features score improved by .50, .97 and .32, respectively. The mean of the listening score improved from 46.33 to 50.67. In contrast, the natural group participants did not perform better in the post-test than in the pre-test, and the scores for segmental and suprasegmental features even saw a slight decline. Although the results suggested that there may have been improvement in the instruction group, the sample size was not large enough to carry out reliable inferential statistical procedures, such as a paired sample t-test to prove that a significant difference existed between the scores of the two tests.

The holistic score of Participant C and the scores of suprasegmental features of Participants D and E declined after the instruction. Such declination, nevertheless, was not forceful enough to negate the effectiveness of the instruction. Participant C missed two sessions of the instruction, which could account for her undesirable holistic performance. Moreover, the difference was small (the largest being .25) and could have been due to the unnaturalness while reading aloud (Cruttenden, 2001). Also, except for only one type of score, these participants rated much higher in other aspects in the post-test than in the pre-test.

According to Table 4, the instruction group participants showed the highest degree of improvement in segmental features and the lowest in suprasegmental features. This disparity may be the result of the “teachability-learnability scale” of different aspects of pronunciation pointed out by Dalton and Seidlhofer (1994). According to Dalton and Seidlhofer, aspects like the difference between voiced and voiceless consonants are easy to describe and generalize and thus are teachable. Yet other aspects like intonation involve attitudinal function extremely dependent on the context and therefore are more likely learned without teacher intervention. Throughout the instruction, the researcher constantly emphasized the importance of suprasegmental features and their context-dependent characteristics in order to raise learners’ metacognitive awareness in learning such aspects. For instance, the researcher demonstrated that sentences with exactly the same words can connote different meanings with different types of intonation.

In conclusion, the pre- and post-test scores suggest – although without any statistical inference – that metacognitive instruction may be useful in improving learners’ pronunciation.

Results and Discussion of Weekly Journals Analysis

The participants were asked to keep weekly journals for eight consecutive weeks (November 8th – December 27th, 2008), excluding the week of mid-term examinations. By the end of the instruction, they were expected to submit seven journals each. The actual numbers of journals turned in by Participants A-F were 6, 5, 4, 7, 5 and 6, respectively.

Analysis of Weekly Journals

The weekly journals were analyzed in three periods so as to obtain dynamic data of the changes in the participants’ pronunciation learning metacognition. The journals of the first two weeks were put into the category of “Period I,” and those of the last two weeks were categorized as “Period III.” The rest were grouped into “Period II.”

The analysis of the journals was guided by Flavell’s model of metacognition (1979, 1987). The relationships between the guiding questions and Flavell’s model are illustrated in Table 5. In order to ensure the reliability of data analysis, recurring themes were generalized in terms of “sense groups” instead of discrete words, phrases or sentences (Wu, 2006).

Table 5. Flavell’s Metacognitive Model and Guiding Questions for Journal Writing

Metacognitive Knowledge	Task Knowledge	1. What have you learned in this week? What are the characteristics of the learning tasks? What are the standards for mastering the learning tasks?
	Person Knowledge	2. What are your strengths and weaknesses in this week’s pronunciation learning? Why? 3. What are the strengths and weaknesses of others, according to your observations?
	Strategy Knowledge	4. How did you plan for this week’s pronunciation learning? Why do you make such plans? 5. How did you monitor the correctness of your pronunciation? 6. Is this week’s pronunciation learning effective? Why?
Metacognitive Experiences		7. What are your experiences in this week’s pronunciation learning?
Puzzlements in Pronunciation Learning of the Week		8. Do you have any questions regarding this week’s pronunciation learning?

Recurring Themes and their Discussion

1. *Recurring Themes in Period I.* Altogether nine journals were given back to the researcher in this period out of the expected 12. Participants C and D failed to give back the journals of the second week, while Participant B missed the journal of the first week. The following table shows the recurring themes categorized in accordance with Flavell’s model of metacognition.

Table 6. Recurring Themes in Period I

	<i>Recurring Themes</i>	<i>Times of Occurrences</i>
<i>Task Knowledge</i>	1. Strong vibrations of the vocal folds occur in voiced consonants, but not in their voiceless counterparts.	9
	2. The vowels before voiced consonants are longer than those in other places.	5
	3. English voiced consonants are not entirely equal to unaspirated consonants in Chinese. ²	5
	4. We have to avoid Chinese interference when producing English stops, fricative, and affricates.	5
	5. Words in an English sentence are not equally prominent.	7
	6. We should pay attention to the stress allocation when doing listening tasks.	4
<i>Person Knowledge</i>	7. I'm not accustomed to pronouncing voiced stops.	4
	8. I can learn English stress easily.	3
	9. If I had paid more attention to pronunciation in high school, I could have been better at English pronunciation.	6
<i>Strategy Knowledge</i>	10. Paying attention to native speakers' pronunciation.	6
	11. Seeking help from others.	7
<i>Metacognitive Experiences</i>	12. It needs time and efforts to improve my pronunciation.	5
	13. I feel that my tongue is clumsy when speaking English.	3

Most of the recurring themes in “task knowledge” pertain to the nature and characteristics of specific learning tasks (e.g., recurring themes 1, 2, 3 and 5). In addition, two recurring themes (4 and 6) show the learners’ understanding of the standards for mastering the learning tasks. After two weeks of instruction, the learners only presented a rudimentary understanding of what was involved in the pronunciation learning tasks.

With regard to “person knowledge,” the participants demonstrated basic awareness of their strengths and weaknesses in the learning tasks (recurring themes 7 and 8). Moreover, they showed some regrets about their apathy or unawareness of pronunciation in high school English learning (recurring theme 9), implying that the participants believed in their ability to be more proficient in English pronunciation provided they put forth enough effort or were given enough instruction.

In Period I, the learners did not show noticeable awareness of any specific strategies for pronunciation learning. Although some strategies like “to practice more” and “to work hard” were found in their journals, these references were too vague and general to suggest raised awareness in strategy use. However, two more concrete strategies were extracted: “seeking help from others” and “paying attention to native speakers’

pronunciation.” These two strategies conform to the factor of “External Assistance Strategies” (Factor 5) found in the cross-sectional research.

Insofar as metacognitive experiences are concerned, the participants mentioned negative experiences in pronunciation learning. As recurring theme 13 shows, the learners felt their tongues were clumsy when speaking English. In order to overcome the difficulties they encountered, time and effort are required (recurring theme 12).

In summary, after two sessions of metacognitive instruction, the participants showed only some basic metacognitive awareness in pronunciation learning. The sophistication of metacognitive awareness is expected in Periods II and III.

2. *Recurring Themes in Period II.* Period II lasted for four weeks with three instruction sessions. Therefore, each participant was expected to finish three journals. Altogether 15 journals were given back; however, Participants A, B and C missed one journal each. Table 7 shows the recurring themes of this period.

In Period II, the participants showed deeper understanding of the task of pronunciation learning. Unlike the recurring themes under “task knowledge” in Period I, which only indicated the learners’ understanding of the characteristics of learning tasks, the participants showed that they were able to evaluate the effects of the learning tasks in Period II. For instance, recurring themes 1 and 2 indicate that the learners understand the significance of the learning tasks.

As for “person knowledge” in Period II, the participants not only revealed their beliefs about themselves in pronunciation learning (recurring themes 5, 6 and 8) but also about the pronunciation of other learners (recurring theme 7). Moreover, their beliefs about themselves even affected their choice of learning preferences (recurring theme 8).

With regard to “metacognitive strategies,” it is evident from the recurring themes that the participants know how to plan (recurring themes 9 and 10), monitor (recurring theme 11) and evaluate (recurring theme 12) their pronunciation learning. Compared with Period I, they were more aware of how to accomplish the tasks in pronunciation learning. Additionally, in this period, the participants had negative experiences while using the monitoring strategy (recurring theme 13).

As recurring theme 13 indicates, the use of monitoring strategy made the participants’ speech less fluent. This finding, on the one hand, shows that metacognitive knowledge and experiences are not isolated from each other. On the other hand, it evinces that the participants were more mindful of their learning experiences. Apart from these negative experiences, recurring theme 14 suggests positive experiences in pronunciation learning since participants revealed that they felt more confident because of their improved pronunciation.

In short, compared with Period I, the participants were more cognizant of themselves as pronunciation learners, learning strategies, learning tasks and their experiences in accomplishing the tasks. As a result, their metacognitive awareness was improved.

Table 7. Recurring Themes in Period II

	<i>Recurring Themes</i>	<i>Times of Occurrences</i>
<i>Task Knowledge</i>	1. Strong and weak forms can make my English more rhythmic.	5
	2. Linking, assimilation and elision are practical, and a good command of these aspects presupposes a purer accent.	5
	3. The lip shapes and tongue heights are important to produce vowels.	3
	4. We have to be able to link, assimilate and omit sounds in natural speech.	4
<i>Person Knowledge</i>	5. I don't always know when to produce weak forms.	4
	6. I didn't pay much attention to pronunciation in the past, so it is hard to rectify some sounds.	6
	7. Although some classmates can pronounce single words correctly, their English lacks rhythm in connected speech.	7
	8. I find it rather weird to pronounce the "r" sound in American English, so I think the British accent is more suitable for me. / I like the casualness of the American accent and would like it to be the norm used for learning.	6
<i>Strategy Knowledge</i>	9. I plan to watch American sitcoms (or movies) everyday and imitate the actors' pronunciation.	5
	10. I plan to read English poems to have a better understanding of English rhythm.	3
	11. While speaking English, I consciously check whether I am giving functional words less prominence.	4
	12. I record my speech and compare it with the standard speech.	8
<i>Metacognitive Experiences</i>	13. I consciously checked whether I had pronounced certain sounds correctly, but that impaired my fluency.	3
	14. Good pronunciation can raise my confidence and it is worth the effort.	5

3. *Recurring Themes in Period III.* The last period continued for another two weeks. Twelve journals were expected to be submitted, yet Participant C failed to turn in the journal of the seventh week, and Participants E and F did not turn in the journals of the eighth week. Generalized recurring themes are displayed in Table 8.

Table 8. Recurring Themes in Period III

	<i>Recurring Themes</i>	<i>Times of Occurrences</i>
<i>Task Knowledge</i>	1. English has wavier intonation than Chinese.	6
	2. Information beyond words can be expressed by intonation.	4
	3. Intonation, together with stress, strong and weak forms, are more important than individual sounds.	5
	4. Speech rate does not presuppose good pronunciation, but rhythm and prosody do. ³	3
	5. Intonation can be better learned in context.	4
<i>Person Knowledge</i>	6. I have big problems in English intonation.	4
	7. Most of my classmates speak English in a plain and dull way.	5
<i>Strategy Knowledge</i>	8. I plan to watch English movies (or sitcoms) at regular intervals and pay attention to the actors' intonation.	4
	9. I plan to go to the "English Corner" ⁴ every week.	3
	10. I will record my speech and find my flaws.	3
<i>Metacognitive Experiences</i>	11. I feel that intonation is difficult to grasp.	4
	12. I feel happy because I can use intonation to express meaning beyond words alone.	3

In Period III, the participants showed a wide range of understanding of pronunciation learning tasks. The recurring themes in this category fall into two types: understanding of task characteristics (recurring themes 1, 2, 4 and 5) and understanding of task significance (recurring theme 3). These recurring themes further confirmed the findings of the previous period.

Recurring themes 6 and 7 concern the participants' understanding of both selves and others as pronunciation learners. Recurring themes 8, 9 and 10 illustrate that the participants use planning and evaluating strategies in their pronunciation learning. No deeper understandings of person and strategy knowledge were found in Period III than in Period II.

Recurring themes 11 and 12 reflect the participants' negative and positive experiences in pronunciation learning respectively. No improvements in the awareness of metacognitive experiences were found in this period either.

The participants' metacognitive awareness in Period III did not show further development as had been expected. One possible reason is that there might be a plateau for the development of metacognitive awareness in pronunciation learning. If the duration of the longitudinal research could be extended, it would be possible to determine whether the participants' metacognitive awareness would develop with additional time. Another reason for the lack of improvement could be the fact that Period III was near the semester end and the participants could not afford as much time in journal writing as before.

In conclusion, by analyzing the recurring themes generalized from the three periods in the longitudinal research, it was discovered that the participants' metacognitive awareness was enhanced after the instruction. Therefore, it can be inferred that metacognitive instruction helps raise learners' metacognitive awareness in pronunciation learning. A plateau of the development of learners' metacognition was also found in this research, which requires further studies to confirm its existence.

Strengths and Limitations of the Longitudinal Study

The longitudinal research has three major strengths. Firstly, as Cohen (1998) claimed, diaries and journals are effective research instruments for exploring learners' ideas and beliefs about learning tasks. The incorporation of weekly journals offers much information on the dynamic changes of metacognition in pronunciation learning. Secondly, the participants' pronunciation proficiency was not only assessed holistically but analytically as well. From the holistic score and the scores of both segmental and suprasegmental features, richer data on the improvement of pronunciation proficiency was able to be obtained. Finally, the findings confirmed that the effectiveness of metacognitive instruction of pronunciation is highly likely.

The longitudinal research, however, is not free from limitations. The participants missed several weekly journals which prevented the researcher from getting more information on their changes in metacognitive awareness. Also, due to time constraints, the instruction only lasted for eight weeks. More detailed information on the changes in pronunciation learning metacognition could have been obtained if the duration of the instruction was longer.

Conclusion

By means of factor analysis, the components that constitute learners' metacognitive ability in pronunciation learning were explored. According to the internal relationships of these components, the metacognitive model of pronunciation learning was established. This model confirmed the major components of Flavell's (1979, 1987) model of metacognition by verifying the existence of both metacognitive experiences and metacognitive knowledge, including person, task and strategy knowledge. The present model went on to refine Flavell's model of metacognition by identifying the subcomponents of metacognitive experiences and metacognitive knowledge. "Positive experiences" and "motivating experiences" as well as two types of metacognitive strategies – "self-effort strategies" and "external assistance strategies" – were discovered. Wen

(2003) pointed out the dearth of studies on pronunciation learning strategies and this research could provide significant insight for further studies in such area.

Pedagogically, this research proved the effectiveness of metacognitive instruction for raising learners' metacognitive awareness in pronunciation learning. By analyzing the weekly journals that the participants kept throughout the eight-week metacognitive instruction of pronunciation, dynamic changes in learners' metacognitive awareness were observed. Instruction was found to be effective in helping learners improve their metacognitive ability so that they can become more self-directed in their English pronunciation learning.

Descriptive statistics showed that the pronunciation proficiency of the instruction group participants marked an improvement after the instruction. This suggests that learners' pronunciation proficiency may increase with raised metacognitive awareness, yet strong inferences should be avoided. The research also confirmed the rationality of the "teachability-learnability scale" proposed by Dalton and Seidlhofer (1994). Segmental features, such as the voicing of consonants, can be taught explicitly, whereas suprasegmental features, like intonation, are better for learners to learn in context on their own.

Further research is strongly suggested. Replication studies are warranted to test the rationality of the present model of metacognition in pronunciation learning. Correlational studies between the metacognitive components in the present model and pronunciation proficiency are necessary to determine the degree of correlation between pronunciation proficiency and specific metacognitive ability. Regression studies can also be done to explore which of the metacognitive components can predict pronunciation proficiency. Lastly, longitudinal studies of this kind with longer duration as well as a larger sample size are advised to investigate whether there is a plateau for the improvement of metacognitive awareness, how long the plateau, if any, lasts, and the reasons for the existence of such a plateau. A larger sample size would also allow statistical inferences to be made.

Appendices

Appendix A

Semi-Structured Interview Checklist in the Preliminary Study (translated from Chinese)

1. When did you start your English learning?
2. Do you like learning English? Why?
3. Is English pronunciation important? Why?
4. What practice do you usually do to improve your English pronunciation?
5. What factors do you think determine one's English pronunciation proficiency?
6. Are you satisfied with you pronunciation?
7. Do you have anything to say about English pronunciation learning?

Appendix B

Questionnaire of Metacognition in EFL Pronunciation Learning for Chinese Tertiary Learners (translated from Chinese)

Name (optional) _____ Age _____ Sex _____ University _____

Part I General Information

1. I like learning English. 5 4 3 2 1
2. English is a nice language to listen to. 5 4 3 2 1
3. I like imitating standard English pronunciation. 5 4 3 2 1
4. I admire learners with good English pronunciation. 5 4 3 2 1
5. I study English because _____ (check the one/ones that apply)
 - A. I'm interested in the language.
 - B. I'm interested in the culture of English-speaking countries.
 - C. I like to make friends with other people who speak English.
 - D. I learn English for school credit.
 - E. I need English for my future career.
 - F. I plan to travel abroad.
 - G. I plan to study abroad.
 - H. I plan to work abroad.
 - I. Other reasons. Please specify _____
6. Have you ever had a specific course for English pronunciation?
 - A. Yes. B. No. (If you choose A, please go on with Question 7 and ignore Question 8. If you choose B, please go to Question 8 directly.)
7. I benefit a lot from the specific course of English pronunciation. 5 4 3 2 1
8. I want to attend a specific course of English pronunciation. 5 4 3 2 1
9. Have you ever traveled or studied in an English-speaking country before?
 - A. Yes. B. No. (If you choose A, please go on with Question 10. If you choose B, please go to Question 11 directly.)
10. I have traveled/studied in an English-speaking country for _____ months. Do you think this experience helps you improve your English pronunciation? Why or why not? Please briefly state your opinions below.

Part II Person Knowledge

11. My English pronunciation is good. 5 4 3 2 1
12. I can tell which of my classmates have pronunciation that is good or poor. 5 4 3 2 1
13. My Chinese vernacular affects my English pronunciation. 5 4 3 2 1
14. I have the ability to recognize different speech sounds. 5 4 3 2 1

15. I have the ability to learn English pronunciation. 5 4 3 2 1
16. I am confident that I can learn good English pronunciation. 5 4 3 2 1
17. I am motivated to learn English pronunciation. 5 4 3 2 1
18. The pronunciation of my first English teacher is good. 5 4 3 2 1
19. I was influenced by the pronunciation of my first English teacher. 5 4 3 2 1
20. I can recognize the problems in my English pronunciation. 5 4 3 2 1
21. I have strategies to rectify the problems in my pronunciation. 5 4 3 2 1

Part III Task Knowledge

22. Clear utterances are one of the standards of good pronunciation. 5 4 3 2 1
23. Wavy intonation is one of the standards of good pronunciation. 5 4 3 2 1
24. Fluency is one of the standards of good pronunciation. 5 4 3 2 1
25. A tinge of native English accent is one of the standards of good pronunciation. 5 4 3 2 1
26. A beautiful voice is one of the standards of good pronunciation. 5 4 3 2 1
27. English pronunciation does not have to be pure provided that communication is not hindered. 5 4 3 2 1
28. Good English pronunciation can make me a more confident learner. 5 4 3 2 1
29. Good pronunciation can make me more willing to communicate in English. 5 4 3 2 1
30. Good pronunciation can facilitate my English listening. 5 4 3 2 1
31. Good pronunciation can facilitate my English speaking. 5 4 3 2 1
32. Good pronunciation can facilitate my overall English learning. 5 4 3 2 1
33. Good pronunciation can ensure smooth communication. 5 4 3 2 1
34. Good pronunciation can allow me a wide audience. 5 4 3 2 1
35. Good pronunciation can secure me more opportunities in learning. 5 4 3 2 1
36. Good pronunciation can secure me more opportunities in future job-hunting. 5 4 3 2 1

Part IV Strategy Knowledge

37. I learn English pronunciation by specialized course books. 5 4 3 2 1
38. I watch English movies and TV series and pay attention to actors' pronunciation. 5 4 3 2 1
39. I imitate actors' pronunciation when I see English movies or TV series. 5 4 3 2 1
40. I listen to the recordings of English textbooks and pay attention to the speaker's pronunciation. 5 4 3 2 1
41. I listen to the recordings of English textbooks and imitate the speaker's pronunciation. 5 4 3 2 1
42. I learn English pronunciation by singing English songs. 5 4 3 2 1
43. I learn English pronunciation by practicing tongue-twisters. 5 4 3 2 1
44. I pay attention to the lip shapes of native speakers and improve my pronunciation by imitating them. 5 4 3 2 1
45. I summarize the rules of English pronunciation by myself. 5 4 3 2 1
46. I consult books on English phonetics to improve my pronunciation. 5 4 3 2 1
47. I record my pronunciation and compare it with standard pronunciation. 5 4 3 2 1
48. I communicate with foreign teachers or friends and pay attention to their pronunciation. 5 4 3 2 1
49. I seek help from classmates and teachers who have good pronunciation. 5 4 3 2 1
50. I ask foreign teachers and friends to correct my pronunciation. 5 4 3 2 1
51. I notice the difference between Chinese and English pronunciation. 5 4 3 2 1
52. I notice the difference between British and American accents. 5 4 3 2 1
53. I reflect upon the flaws in my English pronunciation and rectify them. 5 4 3 2 1
54. I have tried to get help from classmates who can help me improve my English pronunciation. 5 4 3 2 1
55. I have tried to get help from teachers who can help me improve my English pronunciation. 5 4 3 2 1

56. I have tried to spend more time on English pronunciation. 5 4 3 2 1

57. I didn't attach importance to pronunciation, so I didn't adopt any effective strategies to learn English pronunciation. 5 4 3 2 1

Part V Metacognitive Experiences

58. It's a painful experience to learn English pronunciation. 5 4 3 2 1

59. I think it is enjoyable to learn English pronunciation. 5 4 3 2 1

60. I am interested in improving my English pronunciation. 5 4 3 2 1

61. I am confident that I can improve my English pronunciation. 5 4 3 2 1

62. I am confident that I can improve my English pronunciation only when a teacher assists me. 5 4 3 2 1

63. I am confident that I can improve my English pronunciation only when my classmates assist me. 5 4 3 2 1

64. I am confident that I can improve my English pronunciation if I have more time to practice. 5 4 3 2 1

Survey of Pronunciation Difficulties

For the following sounds and aspects of pronunciation, 5 = Very difficult, 4 = Difficult, 3 = So-so, 2 = Not difficult, and 1 = Easy.

/b/ bus; /p/ past; /t/ time; /d/ dog; /k/ key; /g/ gate; /f/ fly; /v/ very; /s/ sorry; /z/ zoo; /ʃ/ (š) shoe; /z/ (ž) leisure; /θ/ thank; /ð/ these; /h/ hat; /tʃ/ (č) reach; /dʒ/ (j) jam; /l/ like; /l/ bell; /m/ may; /n/ nice; /ŋ/ sing; /r/ right; /j/ (y) yes; /w/ water; /i:/ (i) see; /ɪ/ sit; /e/ (ε) net; /æ/ map; /ɑ:/ (ar) hard; /ɒ/ (a) hot; /ɔ:/ (o) law; /ʊ/ put; /u:/ (u) who; /ʌ/ but; /ɜ:/ (ɛ) burn; /ə/ ago; /eɪ/ day; /əʊ/ (o) no; /aɪ/ high; /aʊ/ now; /ɔɪ/ boy; /ɪə/ near; /eə/ (er) hair; /tʊə/ (ɜr) tour

Stress; Linking (liaison); Weak forms; Rhythm; Assimilation; Intonation

Notes

¹Since the two allophones of the phoneme /l/, clear-l and dark-l sound rather dissimilar to a Chinese ear, they were rated separately by the respondents.

²The participants did not use the technical terms like “voiced” or “unaspirated” but used concrete examples like /b, d, g/ and Chinese “b,” “d,” and “g” in *pinyin*, the standard Romanization of Mandarin Chinese.

³Although the study of rhythm is within the scope of prosodic phonology (see Nespor & Vogel, 1986 [2007]), this recurring theme is generalized solely on the basis of what the participants wrote in their journals.

⁴“English Corner” is a very popular gathering in Chinese universities for the students to communicate in English, with the aim of improving their spoken English.

References

- Anderson, N. J. & Vandergrift, L. (1996). Increasing metacognitive awareness in the L2 classroom by using think-aloud protocols and other verbal report formats. In R. L. Oxford (Ed.), *Language learning strategies around the world: Cross cultural perspectives* (pp. 3-18). Honolulu: University of Hawai'i Press.
- Brown, A. (1987). Metacognition, executive control, self-regulation, and other more mysterious mechanisms. In F. E. Weinert & R. H. Kluwe (Eds.), *Metacognition, motivation and understanding* (pp. 65-116). Hillsdale, NJ: Erlbaum.
- Brown, J. D. (2001). *Using surveys in language programs*. Cambridge: Cambridge University Press.

- Celce-Murcia, M., Brinton, D. M. & Goodwin, J. M. (1996). *Teaching pronunciation: A reference for teachers of English to speakers of other languages*. Cambridge: Cambridge University Press.
- Cohen, A. D. (1998). *Strategies in learning and using a second language*. Harlow: Longman.
- Cross, D. R. & Paris, S. C. (1988). Developmental and instrumental analysis of children's metacognition and reading comprehension. *Journal of Educational Psychology*, 80, 131-142.
- Cruttenden, A. (2001). *Gimson's pronunciation of English*. London: Edward Arnold.
- Cunningham-Anderson, U. (1997). Native-speaker reactions to non-native speech. In A. James & J. Leather (Eds.), *Second language speech: Structure and process* (pp. 133-144). Berlin: Mouton de Gruyter.
- Dalton, C. & Seidlhofer, B. (1994). *Pronunciation*. Oxford: Oxford University Press.
- Dickerson, L. (1975). The learner's interlanguage as a system of variable rules. *TESOL Quarterly*, 9, 401-407.
- Dörnyei, Z. (2003). *Questionnaires in second language research*. Mahwah, NJ: Erlbaum.
- Dörnyei, Z. & Skehan, P. (2003). Individual differences in second language learning. In C. J. Doughty & M. H. Long (Eds.), *The handbook of second language acquisition* (pp. 589-630). Malden, MA: Blackwell.
- Edwards, J. G. H. & Zampini, M. L. (2008). Introduction. In J. G. H. Edwards & M. L. Zampini (Eds.), *Phonology and second language acquisition* (pp. 1-11). Amsterdam: John Benjamins.
- Flavell, J. H. (1979). Metacognition and cognitive monitoring: A new area of cognitive-developmental inquiry. *American Psychologist*, 34, 906-911.
- Flavell, J. H. (1987). Speculations about the nature and development of metacognition. In F. E. Weinert & R. H. Kluwe (Eds.), *Metacognition, motivation and understanding* (pp. 21-29). Hillsdale, NJ: Erlbaum.
- Flege, J., Yeni-Komshian, G. & Liu, S. (1999). Age constraints on second language learning. *Journal of Memory and Language*, 41, 78-104.
- Gardner, R. C. (1985). *Social psychology and second language learning: The role of attitudes and motivation*. London: Edward Arnold.
- Gardner, R. C. & Lambert, W. E. (1959). Motivational variables in second language acquisition. *Canadian Journal of Psychology*, 13, 266-272.
- Gardner, R. C. & Lambert, W. E. (1972). *Attitudes and motivation in second language learning*. Rowley: Newbury House.
- Georghiades, P. (2004). From the general to the situated: Three decades of metacognition. *International Journal of Science Education*, 26, 365-383.
- Goh, C. C. M. (1997). Metacognitive awareness and second language listeners. *EFL Journal*, 51, 361-369.
- Guiora, A., Beit-Hallahmi, B., Brannon, R., Dull, C. & Scovel, T. (1972). The effects of benzodiazepine (valium) on permeability of language ego boundaries. *Comprehensive Psychiatry*, 13, 421-428.
- Gussenhoven, C. & Jacobs, H. (2005). *Understanding phonology* 2nd edition. London: Hodder Arnold.
- Hewings, M. (2004). *Pronunciation practice activities: A resource book for teaching English pronunciation*. Cambridge: Cambridge University Press.
- Ioup, G. (2008). Exploring the role of age in the acquisition of a second language phonology. In J. G. H. Edwards & M. L. Zampini (Eds.), *Phonology and second language acquisition* (pp. 41-62). Amsterdam: John Benjamins.
- Kluwe, R. H. (1987). Executive decisions and regulation of problem solving behaviour. In F. E. Weinert & R. H. Kluwe (Eds.), *Metacognition, motivation and understanding* (pp. 31-64). Hillsdale, NJ: Erlbaum.
- Liu, H. (2004). Yuanrenzhi celie yu yingyu yuedu de guanxi [The relationship between metacognitive strategies and English reading]. *Waiyu yu Waiyu Jiaoxue*, 26, 24-26.

- Mackey, A. & Gass, S. M. (2005). *Second language research: Methodology and design*. Mahwah, NJ: Erlbaum.
- Nelson, T. O. & Narens, L. (1994). Why investigate metacognition? In J. Metcalfe & P. Shimamura (Eds.), *Metacognition: Knowing about knowing* (pp. 1-25). Cambridge, MA: MIT Press.
- Nespor, M. & Vogel, I. (1986 [2007]). *Prosodic phonology*. Berlin: Mouton de Gruyter.
- Nunan, D. (1992). *Research methods in language learning*. Cambridge: Cambridge University Press.
- O'Malley, J. M. & Chamot, A. U. (1990). *Learning strategies in second language acquisition*. New York: Cambridge University Press.
- Oxford, R. L. (1990). *Language learning strategies: What every teacher should know*. New York: Newbury House.
- Pan, C. (2003). *Formation of English self-concept of Chinese adolescents: The role of English pronunciation and significant others* (Unpublished Master's thesis). Guangdong Foreign Studies University, Guangzhou, China.
- Paris, S. G. & Jacobs, J. E. (1984). The benefits of informed instruction for children's reading awareness and comprehension skills. *Child Development*, 55, 2083-2093.
- Paris, S. G. & Winograd, P. (1990). How metacognition can promote academic learning and instruction. In B. F. Jones & L. Idol (Eds.), *Dimensions of thinking and cognitive instruction* (pp. 15-51). Hillsdale, NJ: Erlbaum.
- Peterson, S. S. (2000). *Pronunciation learning strategies: A first look*. Retrieved from ERIC database. (ED450 599; FL026 618).
- Qin, X. (2003). *Waiyu jiaoxue yanjiu zhongde dingliang shuju fenxi* [Quantitative data analysis in foreign language teaching and research]. Wuhan: Huazhong University of Science and Technology Press.
- Scovel, T. (1988). *A time to speak: A psycholinguistic inquiry into the critical period for human speech*. Cambridge, MA: Newsbury House.
- Seliger, H. W. & Shohamy, E. (1989). *Second language research methods*. Oxford: Oxford University Press.
- Vandergrift, L. (2002). "It was nice to see that our predictions were right": Developing metacognition in L2 listening comprehension. *The Canadian Modern Language Review*, 58, 555-575.
- Victori, M. & Lockhart, W. (1995). Enhancing metacognition in self-directed language learning. *System*, 27, 537-555.
- Wang, C. (2004a). Ziwo gainian yu waiyu yuyin xuexi jiashe [Self-concept, English pronunciation and EFL learning]. *Waiyu Jiaoxue yu Yanjiu*, 36, 56-63.
- Wang, C. (2004b). Yingyu yuyin ziwo gainian yu shiji yingyu yuyin shuiping [English pronunciation self-concept and actual pronunciation]. *Waiyujie*, 25, 62-67.
- Wang, G. (2005). *English pronunciation and intonation for communication: A course for Chinese EFL learners* 2nd edition. Beijing: Higher Education Press.
- Wells, J. C. (2000). *Longman pronunciation dictionary*. Harlow: Pearson Education.
- Wen, Q. F. (1993). *Advanced level English learning in China: the relationship of modifiable learner variables to learning outcomes* (Unpublished doctoral dissertation). University of Hong Kong, Hong Kong SAR, China.
- Wen, Q. F. (2003). Zhongguo yingyu xuexi celüe yanjiu 20 nian [EFL learning strategies research in China over 20 years]. In Q. F. Wen & L. Wang (Eds.), *Yingyu xuexi celüe shizheng yanjiu* [A collection of empirical studies on EFL learning strategies] (pp. 1-34). Xi'an: Shaanxi Normal University Press.
- Wenden, A. L. (1987). Metacognition: An expanded view on the cognitive abilities of L2 learners. *Language Learning*, 37, 573-594.
- Wenden, A. L. (1998). Metacognitive knowledge and language learning. *Applied Linguistics*, 19, 515-534.
- Wenden, A. L. (1999). An introduction to metacognitive knowledge and beliefs in language learning: Beyond the basis. *System*, 27, 435-441.
- Wenden, A. L. (2001). Metacognitive knowledge in SLA: The neglected variable. In M. Breen (Ed.), *Learner contributions to language learning: New directions in research* (pp. 44-64). Harlow: Pearson.
- Wu, H. (2006). *Eryu xiezuo yuanrenzhi lilun de shizheng yanjiu* [Metacognition in EFL writing: A data-based theoretical construction]. Beijing: Foreign Language Teaching and Research Press.
- Wu, H. (2008). A longitudinal study of metacognition in EFL writing of Chinese university students. *China English Language Education Association Journal*, 31, 87-92.
- Wu, H. & Liu, R. (2004). Xiezuo yuanrenzhi jiegou fangcheng moxing yanjiu [Investigating the effects of metacognition in EFL writing: A structural equation modeling approach]. *Xiandai Waiyu*, 27, 370-377.
- Yuan, F. & Xiao, D. (2006). Yuanrenzhi celüe zai TEM4 zhong de yunyong ji qi yu chengji de guanxi yanjiu [On the application of cognitive and metacognitive strategies in TEM4 (Test for English Majors, Grade 4) and its relationships with test scores]. *Waiyu yu Waiyu Jiaoxue*, 28, 31-34.
- Zhang, L. J. (2000). Metacognition in L2 reading literacy acquisition: the case of ten Chinese tertiary students learning to read EFL. In A. Brown (Ed.), *English in Southeast Asia '99: Developing multiliteracies* (pp. 83-96). Singapore: National Institute of Education, Nanyang Technological University.
- Zhang, L. J. (2001). Awareness in reading: EFL students' metacognitive knowledge of reading strategies in an acquisition-poor environment. *Language Awareness*, 10(4), 268-288.
- Zhang, L. J. (2010). A dynamic metacognitive systems account of Chinese university students' knowledge about EFL reading. *TESOL Quarterly*, 44(2), 320-353.
- Zhang, L. J., & Wu, A. (2009). Chinese senior high school EFL students' metacognitive awareness and use of reading strategies. *Reading in a Foreign Language*, 21(1), 37-59.
- Zhang, L. J., & Zhang, D. L. (2008). Yuanrenzhi, yuanyuyan yishi, ziwo tiaokong yu waiyu jiaoxue [Metacognition, metalinguistic knowledge, self-regulation and foreign language teaching and learning]. *Foreign Language Education in China Quarterly*, 1(1), 56-65.

Acknowledgements

This paper is based on my MA thesis at Renmin University of China. I am indebted to Prof. Hongyun Wu of Renmin University, without whose support and guidance this study could have never been finished. My sincere thanks also go to the following people for their help and assistance: Prof. Xin Li, Prof. Xiaomei Ma, Dr. Caihong Hao, Mdm. Lili Zheng, Miss Shuyi Fan, Miss Chang Liu, Miss Pu Su, Miss Wenjie Zhang and Miss Yulan Zhang. The University of Edinburgh should be acknowledged for granting me the funding to present this study at the conference "Languages of Education: The Chinese Context" in Hong Kong, October 2010. Last but not least, I am grateful to the reviewers for their detailed comments, corrections and suggestions, which have led to so much improvement of the original manuscript. All remaining errors and inadequacies are my own.

Author

LEI HE, MSc in Developmental Linguistics (2010, School of Philosophy, Psychology and Language Sciences, University of Edinburgh, UK). MA in Linguistics and Applied Linguistics (2009, School of Foreign Languages, Renmin University of China). Email: helei@rocketmail.com. Specializations: Phonetics and phonology, especially L2 phonological development; self-directed learning in adult SLA.

The Effect of Explicit Instruction Versus Exposure Only on ESL Learners' Ability to Recognize, Use and Recall Phrasal Verbs

Julina A. Magnusson

Utah Valley University

C. Ray Graham

Brigham Young University

This study examines the effects of explicit instruction and exposure only on ESL students' ability to recognize, use and recall phrasal verbs. Subjects included 55 intermediate-level ESL students in reading classes at an intensive English program. Thirty-seven idiomatic phrasal verbs were divided into two lists. In a repeated measures design, one group of students received List 1 through direct instruction and List 2 through exposure only, while the other group received the opposite. Pre and posttests were given to measure students' ability to recognize, use and recall the phrasal verbs.

The results show that treatment type was significant at a high probability level in favor of explicit instruction, although subjects had a higher mean percent gain for recognition than production. The study also reveals that subjects may perform differently – particularly in production – based on the individual difficulty of each phrasal verb.

The findings of this study suggest that explicit instruction of phrasal verbs is more helpful than exposure alone for ESL learners' ability to recognize and use idiomatic phrasal verbs, although more instruction time may be needed for phrasal verb production, particularly if there are difficult collocational restrictions in usage.

1. Introduction

Learning phrasal verbs is critical in order for ESL students to become fluent English speakers. Indeed, Celce-Murcia and Larsen-Freeman (1999) explain, “No one can speak or understand English, at least the informal register, without a knowledge of phrasal verbs” (p. 425). Phrasal verbs, though more commonly found in everyday speech, can be found in all registers, even academic English (Biber et al. 1999; Cornell 1985; Darwin and Gray 1999). Furthermore, new phrasal verbs are constantly being created and added to the thousands that already exist (Side 1990). While native English speakers acquire phrasal verbs naturally, non-native speakers find them to be a “much dreaded” aspect of learning English, in part because of their syntactic and semantic complexity (Sinclair 1991: 67).

Phrasal verbs function as verbs but are different from other verbs in that they are composed of at least two parts: the verb plus one or more particles that are either prepositions or adverbs. While much debate exists about what to call the particle (Bolinger 1971; Darwin and Gray 1999; McMaster 1997), for the purposes of this study, the term *particle* will represent any adverb or preposition that functions together with the verb to form one unit lexically and syntactically.

While the two parts function as a single verb, the meaning of this verb is often very different from the individual meaning of either the verb or the particle alone. For example, *turn down* is a phrasal verb whose meaning – *reject* – is not derivable from either of the individual definitions of *turn* or *down*. Often, non-native speakers are frustrated by such idiomatic combinations, which have familiar parts but seem so random (Side 1990). On the other hand, there are more literal phrasal verbs, such as *come in* or *stand up*, whose definitions are more easily deduced from the individual parts of the verb and particle. Celce-Murcia and Larsen-Freeman (1999) state that the particles in these phrasal verbs retain some of their “prepositional meaning,” making them less difficult for ESL students to understand and use (p. 432). Compounding the difficulty of understanding and learning phrasal verbs is the fact that, as with other vocabulary, many are polysemous. Moreover, many phrasal verbs look similar because there are a large number of short, common verbs that are paired with similar particles such as *make out*, *take out*, *make up*, *take up*, *take away*, *make away*. Students are then faced with the challenge of learning multiple meanings for these similar-looking combinations of verbs and particles.

Syntactically, phrasal verbs are also complex. Similar to other verbs, phrasal verbs can have objects, making them transitive. However, unlike other verbs, transitive phrasal verbs have an added complexity: the particle can often be separated from the verb by the direct object (Celce-Murcia and Larsen-Freeman 1999). English language learners are thus faced with the additional challenge of not only recognizing that familiar verbs and particles are acting as one unit but also doing so when an object frequently separates them.

Research, however argumentative or confusing about specific grammar and semantics behind phrasal verbs, is clear about one thing: phrasal verbs are common and significant enough that, for ESL students, learning them represents “an important step toward increasing their fluency in English” (Wyss 2003: 37). It is surprising that, despite the abundance of phrasal verbs in the English language, so few studies on phrasal verbs have been attempted. In fact, many of the studies that have been completed focus on the importance of phrasal verbs and the difficulties they present for ESL learners, including the way in which the first language influences or interferes with how students deal with phrasal verbs (e.g., Celce-Murcia and Larsen-Freeman 1999; Cornell 1985; Dagut and Laufer 1985; Liao and Fukuya 2004; Side 1990). While these studies provide proof that ESL students need help in dealing with this important aspect of their vocabulary development in English, Sheen (2000) points out that such studies fail to address the central dilemma facing teachers and learners: “What is the best way to achieve familiarity with and fluency in the use of phrasal verbs, which is absolutely essential to a mastery of English?” (p. 161).

Current expert opinion tends to agree that more emphasis needs to be given to teaching phrasal verbs although little empirical research has actually been done to examine the effects of such instruction. The purpose of this study is to investigate the effect of explicit instruction on ESL subjects’ ability to recognize and produce phrasal verbs, as compared to the effect of multiple exposures to phrasal verbs without direct instruction.

To avoid the debate surrounding what defines implicit, intentional and incidental learning (see Nation 2001a), the current study uses the term “exposure,” which is defined as giving students repeated contact with phrasal verbs through reading without focusing direct attention on these phrasal verbs. This study hopes to determine subjects’ ability to learn phrasal verbs from context while their focus is on the message of the text and not

on the phrasal verbs specifically.

1.1 Literature Review

Comparing these two types of treatment, explicit instruction and exposure, corresponds to vocabulary research, which has long debated the issue of explicit versus implicit learning, particularly in terms of vocabulary growth in reading classes. Indeed, Nagy and Herman (1985) argue that native English-speaking children between grades 3 and 12 learn on average 3,000 new words each year and no more than a few hundred could reasonably be attributed to explicit instruction from school. Therefore, they believe that the bulk of children’s vocabulary growth must result from incidental encounters with words – that is, encounters that do not focus specific attention on vocabulary. Nagy and Herman thus advocate increasing opportunities for students to learn incidentally through reading.

In a further study, Nagy, Anderson, and Herman (1987) found that native English speaking children in third, fifth and seventh grades had a 5% chance of learning new words incidentally during reading. These findings suggest that students would need approximately 20 exposures to learn new words in this way. Swanborn and de Glopper (1999) later conducted a meta-analysis of 20 experiments that focused on incidental word learning during reading. Their analysis showed that students learn about 15% of the unknown words from each encounter. At this rate, they would need approximately six to seven exposures to learn new words. There are, of course, numerous factors that affect students’ ability to learn words incidentally, including the difficulty of the text or the number of exposures that students are given to each word (Nagy and Herman 1985). In fact, Woolard (2000) reports that a single encounter with a word is generally not enough for students to acquire it and that research suggests that at least seven exposures are needed for a given word to be acquired receptively. This corresponds with the findings from Swanborn and de Glopper (1999).

In the area of collocational studies, which focus on fixed multi-word units in general, Bahns (1993) claims that these units cannot be acquired implicitly. A number of studies appear to support this claim with results that indicate that learners of English, even at advanced levels, make collocation errors (e.g., Bahns and Eldaw 1993; Biskup 1992). Indeed, Cornell (1985) found that his post-intermediate learners had a low active knowledge of phrasal verbs. On the other hand, Kennedy (2003) proposes that the more often a learner is exposed to multi-word units, the better he will learn them. He advocates, therefore, the use of both explicit instruction and exposure, asserting the two are necessary for learners to get enough exposure to language elements.

Nation (2001a) advises that incidental word learning is not “as effective as direct deliberate learning for any particular word” (p. 96) but it is an alternative for teachers that requires less effort and classroom time. DeCarrico (2001) proposes the need for a balanced approach that encompasses both explicit teaching and opportunities for incidental learning.

Although studies exist that indicate that vocabulary growth may benefit from explicit instruction or exposure, few studies have looked at this area in terms of multi-word units such as phrasal verbs. This study will address the following research question: what effect does explicit instruction of phrasal verbs have on ESL students’ ability to recognize, use and recall phrasal verbs when compared to exposure only?

2. Methods

2.1 Subjects

Subjects for this study included 55 adult speakers of a variety of native languages in four intact low-intermediate reading classes in an intensive English program at a large private university. Two teachers, Teacher A and Teacher B, participated in this study and each taught two of the classes with the same treatment. Hence, the results of the students in their two classes have been combined to represent two groups under Teacher A and Teacher B.

Teacher A had a total of 24 students, whereas Teacher B had 31 students. While subjects were asked to provide their gender, age and native language, they were not given any pre-exposure questionnaires asking about their previous experience with phrasal verbs or background in learning English. In total, the four classes consisted of 24 male students and 31 female students. The students spoke various native languages, including Spanish and Korean (the two most common), Chinese (Mandarin and Cantonese), French-Creole, Russian-Armenian, and Farsi. The average age of the students was approximately 25. The classes were almost equally divided in terms of age, gender and L1, although these were not examined as variables in this study.

2.2. Instruments and Materials

All phrasal verbs used in this study came from at least one of the five books used in the reading classes designated for these learners in the intensive English program (Charlotte's Web by E.B. White; The Freedom Side by Marcie Miller Stadelhofen; Albert Einstein: Young Thinker by Marie Hammontree; Number the Stars by Lois Lowry; and Les Miserables by Victor Hugo, adapted by Monica Kulling). In addition, all of the phrasal verbs were selected by four raters based on their idiomaticity (the meaning of the phrasal verb was not easily deducible from its individual parts).

A pool of phrasal verbs following these criteria was created and trial tests were constructed in which learners' receptive and productive knowledge of the verbs could be assessed prior to the study. From the results of these tests, 37 phrasal verbs were eventually selected for use in the study and randomly assigned to one of two lists from which the test items and instructional materials would be created. List 1 contained 19 items and List 2 contained 18. Only one definition for each phrasal verb was used in this study, and it was selected based on the context of the book containing it and then written using definitions from WordNet (Miller, 2003). See Appendix A for the complete phrasal verb lists and definitions used in this study.

Using these 37 phrasal verbs, a 24-item test was designed and administered before and after the treatment. See Appendix B for the complete pretest and posttest.

To increase the reliability and validity of the test instrument as well as to verify the clarity and instructions of the test, a preliminary version was administered to native English speakers. Based on their responses and feedback, some of the items were changed or deleted and instructions were modified appropriately. A distractor analysis for the multiple-choice section was conducted and additional changes were made to improve the items. No phrasal verb appeared twice on the test.

Part 1, containing 11 items, used a multiple-choice cloze procedure in which

the learner was presented with a sentence with blanks in place of the target phrasal verb. Below the sentence, listed as a through e, were five choices of phrasal verbs, only one of which could correctly fit into the context. Subjects were asked to circle the letter of the two-word verb that best fit each sentence. The purpose of this section was to test recognition, or subjects' receptive knowledge of phrasal verbs.

Part 2, which contained 4 items, asked subjects to create a sentence that showed they understood the meaning of the phrasal verb. This section was included to demonstrate the distinction between being able to produce the form of a vocabulary item (Part 3 of the test) and being able to actually use that item correctly in the subjects' own writing. This distinction is emphasized by Read (2000), who argues that we cannot infer that students who can produce items in a fill-in-the-blank section can use the same items "correctly and appropriately in their own writing and speech" (p. 157).

Part 3 included 9 items and utilized a C-test-like procedure in which subjects were asked to complete sentences with missing two-word verbs. The first one or two letters of the phrasal verb were provided and subjects were required to supply both the correct verb and particle in order to get credit for the item. This part of the test attempted to determine subjects' ability to produce phrasal verbs by recalling their form and definition from memory to fit in sentence contexts. The element of guessing was very limited because subjects could not "find" the answer anywhere else on the test.

Additional materials were provided for the exposure treatments. Since the targeted phrasal verbs occurred, on average, only 1.6 times in the books assigned for the class, original reading materials were created in which the number of exposures for each phrasal verb was raised to a minimum of seven. When possible, these reading passages related to topics found in the five assigned books. Ten similar passages were created – the first five with List 1 phrasal verbs and the remainder with List 2 phrasal verbs. To ensure that the passages were at an appropriate level of difficulty for the low-intermediate readers, each was run through a vocabulary profiler program (Nation, 2001b), confirming that at least 95% of the words in each passage, excluding proper nouns, came from the 2,000 most frequent word families. These materials were read only by students in the exposure treatment group.

It would have been preferable to utilize "authentic" material for these additional readings. However, finding material at the proper level of reading difficulty and with a concentration of the appropriate phrasal verbs would have been a near impossible task, so original materials were created.

Likewise, supplementary materials were created for the "explicit teaching" groups to help the teachers teach the corresponding phrasal verbs using similar strategies. These included: flashcards to practice matching a phrasal verb with its definition; extra sentence examples provided orally to students or on book study guides; and pictures that visually represented the phrasal verbs and the context of the books.

In addition to these materials, a questionnaire was constructed to find out how much of each book students reported reading and whether they had read the five extra reading passages that provided exposure to phrasal verbs. Teachers had independent records of students' performance on the homework and in class assignments.

2.3 Procedures

Students in all classes were invited to sign the consent forms and take the pretests

on the first day of the study. On the second day, students were introduced to phrasal verbs and their grammatical structures through a phrasal verb worksheet. During the weeks that followed, all of the classes read the five books mentioned earlier while they were undergoing the separate treatments.

Teacher A taught List 1 of phrasal verbs explicitly in her two classes and List 2 through exposure in reading passages, while Teacher B taught List 2 of phrasal verbs explicitly in her two classes and List 1 through exposure in reading passages. Thus, subjects were exposed to both treatments, making each group its own control in a repeated measures design. Both teachers were asked to follow the same reading schedule for the duration of the approximately seven-week study.

2.3.1. Explicit Instruction Treatment

For each of the five books, teachers were required to explicitly teach between 1 and 6 phrasal verbs. The teachers directed students to the pages with phrasal verbs and discussed the definitions in context. The definitions were provided on book study guides, which also included at least 30 other vocabulary words. Students were then shown pictures that visually represented the phrasal verbs. Each picture included the sentence from the book with the phrasal verb replaced by a blank line so that teachers could use the pictures later to practice recall of the phrasal verb. In addition, the researcher prepared a list of one extra sentence example for each phrasal verb. The teachers in this study were asked to include vocabulary and phrasal verbs on each test in order to hold students accountable for them. A few days before the posttest, students spent 15-20 minutes on a flashcard matching activity to review the definitions of the phrasal verbs they had learned.

2.3.2. Exposure Treatment

In this treatment, subjects were exposed to certain phrasal verbs seven times each in the reading texts (the books and reading passages).

The teachers introduced the passages during class as extra reading comprehension practice. Each passage had accompanying reading skills questions. None of the questions directed students' attention to the phrasal verbs, and the teachers never pointed them out. Each passage required about 15-20 minutes to read and answer the questions. The teachers could discuss the content of each as much or as little as they chose. See Appendix C for a sample reading passage.

2.4. Scoring Procedures

The scoring procedures for the posttest were identical to those for the pretest. Items in Part 1, the multiple-choice section, were scored either correct (1 point) or incorrect (zero points).

Determining what were "correct" or "appropriate" sentences for Part 2 was more difficult. Conzett (2000) explains that the difficulty of scoring production items is the reality that, despite errors that make awkward sentences, students can show that they "obviously" understand the meaning of the word (p. 73). Communicating the meaning of words, Conzett notes, shows success in language production. However, she points out that another important goal should be to increase accuracy of production. Subjects

in the current study often produced sentences that showed a level of understanding of the meaning of certain phrasal verbs; yet these sentences were not always accurate. In general, if the problem was not relevant to the phrasal verb, then the sentence was marked correct.

The following are examples of sentences produced by subjects in this study that were identified as correct or incorrect. These examples provide the criteria used to judge correctness of phrasal verb usage.

1. **Marked incorrect:** I break down.

Explanation: This subject did not use enough context to show that he or she understood the meaning of the phrasal verb, even though the directions for this section of the test were explicit about the need to do so.

2. **Marked incorrect:** When he saw his girlfriend marraid someone else, he broke down to cry.

Marked correct: When my boyfriend left me I broke down and cry.

Explanation: In the incorrect sentence, the subject failed to use the correct collocational pattern for connecting break down and cry. However, the subject who wrote the second sentence did correctly use the phrasal verb by connecting it to cry with an "and." In this case, the sentence was marked correct, even though the subject failed to correctly conjugate one verb – a mistake that did not affect the meaning of the sentence.

3. **Marked correct:** He broke down when he heart the bad news.

Explanation: The phrasal verb is used correctly in this sentence. The spelling mistake is not unintelligible nor does it affect understanding the meaning of the phrasal verb.

It is acknowledged that judging the correctness of phrasal verb use in this section of the test was subjective. However, the researcher and two other native English speakers were consulted to make the final decisions.

Answers for Part 3 of the test were scored "correct" if the subject produced both the correct verb and particle. There was no partial credit given for producing part of the phrasal verb. Answers were considered correct if they contained the correct phrasal verb, regardless of verb tense. In terms of spelling, answers were only marked incorrect if the phrasal verb was unintelligible.

3. Results

3.1. Overall Results

Table 1 illustrates the descriptive statistics for the overall mean percent gain between pretest and posttest for teacher and treatment. The data show positive gains for both explicit instruction and exposure, but the gains were much greater for the explicit treatment. Table 1 also displays rather small differences in mean gain scores across teachers.

An analysis of covariance (ANCOVA) on the gain with the pretest as the covariate was calculated, looking at teacher and treatment as independent variables with mean percent gain as the dependent variable. There were four dependent variables – the overall

gain (combined results for all parts of the test) and then specific gains for recognition, usage and recall. Results of the ANCOVA displayed in Table 2 show that the overall effects of treatment were significant – $F(1,53) = 32.50$, $p < .0001$ in favor of explicit instruction – suggesting that idiomatic phrasal verbs are learned much better with explicit instruction than through exposure alone. The same analysis determined that the teacher variable was not significant – $F(1,53) = 0.14$, $p = 0.7107$.

Table 1
Descriptive Statistics
Overall Mean Percent Gain by Treatment and Teacher

Treatment/Group	N	Mean % Gain	Std Error
Explicit	55	15.89	1.84
Exposure	55	2.99	1.84
Teacher A	24	9.98	2.17
Teacher B	31	8.90	1.91

Table 2
Results of ANCOVA on the Overall Gain, Showing Treatment and Teacher Differences

Variable	DF	F Value	P-Value
Between Treatments	1, 53	32.50	<.0001*
Between Teachers	1, 53	0.14	0.7107

* $p < .0$

3.2. Recognition Section Results

Table 3 and Table 4 display the descriptive statistics and ANCOVA results for the recognition section of the test. The data indicate that there was a large difference in mean scores between treatment groups in favor of explicit instruction and a smaller difference between groups with regard to the teacher variable. Results of the ANCOVA confirm that the difference between treatments was significant – $F(1,53) = 14.85$, $p = 0.0003$ in favor of explicit instruction – and that the teacher variable was not significant – $F(1,53) = 2.37$, $p = 0.13$.

During the study, both teachers taught phrasal verbs in similar ways using the same types of materials with the following exceptions: Teacher A taught the phrasal verbs according to the original calendar, so students read the material containing the phrasal verbs in context prior to discussing them in class. Teacher B, on the other hand, decided to teach all of the phrasal verbs for each book together on one day. Furthermore, unlike Teacher A, Teacher B did not use the phrasal verb pictures to review before each book test. These factors would be expected to cause a difference in favor of Teacher A. One additional difference between the teachers was that Teacher A chose to give her students extra sentence examples orally for each phrasal verb whereas Teacher B chose to dictate

the sentences while her students wrote them down in their study guides.

It is important to recognize that there may be other factors affecting the difference in mean percent gain between the two teacher groups. For example, the differences in mean percent gains for individual items (see Table 9) suggest that difficulty of certain phrasal verbs may be a factor in how well subjects can recognize phrasal verbs in new contexts. Item one, for example, which came from Teacher B’s explicit list, had a mean percent gain of 27.27%, while item 11 from that same list had a mean percent gain of only 12.73%. Furthermore, the recognition section items were all multiple choice. It is possible that various distractors increased the ease or difficulty of each question. Therefore, it is likely that the difference in gain between teacher groups is due more to differences in individual test items rather than how each teacher taught.

Table 3
Descriptive Statistics
Mean Percent Gain on Recognition by Treatment and Teacher

Treatment/Group	N	Mean % Gain	Std Error
Explicit	55	19.70	3.09
Exposure	55	3.88	3.09
Teacher A	24	8.23	3.47
Teacher B	31	15.35	3.05

Table 4
Results of ANCOVA on the gain,
Showing Treatment and Teacher Differences for Recognition Section

Variable	DF	F Value	P-Value
Between Treatments	1, 53	14.85	0.0003*
Between Teachers	1, 53	2.37	0.1300

* $p < .05$

3.3. Usage Section Results

Table 5 displays the descriptive statistics for the mean percent gain on the usage section of the pretest and posttest for both treatment types, indicating a large difference in favor of explicit instruction. Additionally, this table shows a large difference in mean percent gain between teacher groups in favor of Teacher A. The ANCOVA results listed in Table 6 for the usage section reveal that the difference between treatments is significant – $F(1,53) = 8.04$, $p = 0.0065$ – as well as the difference between teachers – $F(1,53) = 7.90$, $p = 0.0069$.

While the results again establish that explicit instruction is more favorable to exposure alone, they also seem to suggest that the teacher is a factor in how subjects perform in production of phrasal verbs through usage. Yet, while both teachers directed students to produce their own oral and written sentences during the first book of the

study, *Charlotte's Web*, neither continued practicing written production throughout the remainder of the study. Therefore, the contrasting results between teachers could prove the difficulty of particular phrasal verbs rather than the difference in teacher. Examining the individual item scores in Table 9 shows that the phrasal verbs from the usage section taught by Teacher B – *amount to* (mean percent gain of zero) and *shape up* (mean percent gain of 1.82%) – appear to be more difficult for subjects to use in appropriate sentences than those taught by Teacher A – *break down* and *set off* – even though students did practice some oral and written production with *shape up*. Whereas it seems easier to create a sentence for *set off* from its definition, “to leave,” it seems more difficult to create a sentence for *amount to* from its definition, “to develop in a positive way.” Phrasal verbs, like other vocabulary items, have unique collocational and contextual restrictions. These restrictions can be more difficult for some phrasal verbs than for others, even when both of the items are idiomatic. Students would most likely need additional practice in creating appropriate sentences for *amount to*, rather than *set off*.

Table 5
Descriptive Statistics
Mean Percent Gain on Usage by Treatment and Teacher

Treatment/Group	N	Mean % Gain	Std Error
Explicit	55	11.55	2.5
Exposure	55	1.55	2.5
Teacher A	24	11.54	2.67
Teacher B	31	1.55	2.35

Table 6
Results of ANCOVA on the Gain,
Showing Teacher and Treatment Differences for Usage Section

Variable	DF	F Value	P-Value
Between Treatments	1, 53	8.04	0.0065*
Between Teachers	1, 53	7.90	0.0069*

*p < .05

3.4. Recall Section Results

Table 7 displays the descriptive statistics for the mean percent gain on the recall (production) section of the pretest and posttest for both treatment types and teacher groups. The data shows a large difference in mean percent gain between the two treatment groups in favor of explicit instruction. As with all the previous sections of the test, these results indicate that subjects seem to learn phrasal verbs better when they are directly taught. The large difference in mean percent gain between teacher groups in favor of Teacher A suggests that the teacher is a factor in students' ability to produce phrasal verbs. While Teacher A practiced recall using the phrasal verb pictures, Teacher B chose not to review

in this way before her tests.

The ANCOVA results listed in Table 8 for the recall section illustrate that the difference in treatment is significant – $F(1,53) = 15.64, p = 0.0002$ – as is the difference between teachers – $F(1,53) = 7.55, p = 0.0082$. However, the difficulty level of individual phrasal verbs may have influenced the results as well, as it apparently did for the usage section of the test. The mean percent gain scores for each individual item from the tests (see Table 9) show wide variation in recall, even between teachers. These types of scores suggest that specific test items may be a larger factor than the teacher on subjects' ability to recall phrasal verbs.

Table 7
Descriptive Statistics
Mean Percent Gain on Recall by Treatment and Teacher

Treatment/Group	N	Mean % Gain	Std Error
Explicit	55	13.03	1.94
Exposure	55	2.29	1.94
Teacher A	24	11.46	2.07
Teacher B	31	3.87	1.82

Table 8
Results of ANCOVA on the Gain,
Showing Treatment and Teacher Differences for Recall Section

Variable	DF	F Value	P-Value
Between Treatments	1, 53	15.64	0.0002*
Between Teachers	1, 53	7.55	0.0082*

*p < .05

3.5. Individual Item Results

Table 9 presents the results of all 55 subjects for individual items from each section of the tests. The table also displays the list and book that contained each phrasal verb (for example, “CW” indicates *Charlotte's Web*). Table 9 shows that each item varies in its mean percent gain, even within section type and even if the words came from the same list. This indicates that individual phrasal verb difficulty may play a critical role in how well students are able to recognize, use and recall phrasal verbs. The results also indicate that the order of when students were taught phrasal verbs is not critical, as those from books *CW* and *AE* came earlier in the study than *FS* and *LM*.

Table 9
Descriptive Statistics
Mean Percent Gain on Individual Items

Item #	Type	List	Book	N	Mean % gain	Std Dev
1	Recognition	2	FS	55	27.27	.59
2	Recognition	2	FS	55	18.18	.51
3	Recognition	2	CW	55	25.45	.55
4	Recognition	1	LM	55	-7.27	.66
5	Recognition	1	FS	55	16.36	.63
6	Recognition	1	AE	55	1.82	.62
7	Recognition	1	AE	55	9.10	.44
8	Recognition	1	CW	55	5.45	.56
9	Recognition	2	NS	55	16.36	.46
10	Recognition	2	AE	55	16.36	.57
11	Recognition	2	LM	55	12.73	.47
12	Usage	2	FS	55	0	0
13	Usage	2	CW	55	1.82	.13
14	Usage	1	LM	55	12.73	.39
15	Usage	1	CW	55	9.10	.29
16	Production	2	FS	55	5.45	.23
17	Production	1	CW	55	14.55	.36
18	Production	1	AE	55	0	.27
19	Production	2	AE	55	1.82	.13
20	Production	2	LM	55	14.55	.36
21	Production	2	AE	55	3.64	.27
22	Production	1	LM	55	10.91	.31
23	Production	2	NS	55	5.45	.23
24	Production	1	CW	55	7.27	.26

3.6. Individual Gain

Table 10 displays the individual gain of each subject from the pretest to the posttest by number of items answered correctly. Scores ranged from the lowest gain, -3, to the highest gain of 9 items. “Read All” represents the 30 subjects who reported reading 100% of all five books and reading all five passages. “Missed Reading” represents the 25 subjects who reported reading less than 100% for one or more books and/or not reading one of the five passages.

Under each total gain score is the number of subjects who received that score. For example, five subjects who reported reading everything received a total gain score

of 4, while only three subjects who reported missing some reading received a total gain score of 4.

The average gain score for the “Read All” subjects was 2.5. The average gain score for the “Missed Reading” subjects was 2. There appears to be a slight difference between those who reported reading everything and those who reported not reading everything. However, the difference is not great enough to remove the subjects from the study.

Table 10
Total Gain in Number of Questions by Subjects from Pretest to Posttest, Represented by Total Number of Subjects for Each Gain Score

Total Gain	-3	-2	-1	0	1	2	3	4	5	6	7	8	9
Read All (N=30)	2	0	1	5	5	1	3	5	5	1	1	0	1
Missed Reading (N=25)	0	1	1	5	5	3	4	3	1	1	1	0	0

4. Discussion

This study confirms what previous research states – phrasal verbs are difficult to master (Cornell 1985), even after class instruction time. The subjects’ average gain score from pretest to posttest was 2.25 items.

Additionally, this study adds important findings to the research on explicit versus implicit vocabulary instruction where little has been done in the area of multi-word units. It confirms that some learning does take place through exposure, which is contrary to Bahns’ (1993) claim that multi-word units cannot be acquired implicitly. Nevertheless, in every area of vocabulary learning that was tested (recognition and production through usage and recall), explicit instruction was much more significant in producing learning gains. This not only supports Nation’s (2001a) argument that incidental word learning is not “as effective as direct deliberate learning” of words (p. 96), but also suggests that it may be wise to give students both direct instruction and plenty of exposure, as Kennedy (2003) proposes.

The descriptive statistical results for explicit instruction showed that subjects typically did better recognizing phrasal verbs (mean percent gain of 19.70%) than recalling (mean percent gain of 13.03%) or using them (mean percent gain of 11.55%). This seems to indicate that there are varying levels of difficulty in learning phrasal verbs for recognition versus production which correlates with other vocabulary items. These results suggest that teachers may need to spend more classroom time focusing on production of phrasal verbs, particularly those with difficult collocational and contextual constraints, because students who can recognize a phrasal verb cannot necessarily then use that phrasal verb in a sentence.

Moreover, at least four of the sentences produced by students seemed to be patterned after the extra sentence examples that students heard in class. Although this is

not a large number, it does support Lewis' (2000) suggestion that language is less difficult to produce later if it is observed and recorded in context.

5. Conclusion

One of the most significant findings of this study is that explicit instruction helps in the acquisition of phrasal verbs, both in recognition and production. Exactly how instruction helps is still an unanswered question, since we did not collect qualitative data from the students regarding their impressions of how the instruction was useful. The two teachers did report that it heightened students' awareness of phrasal verbs, which Hill (2000) calls a "vital key to language learning" (p. 61). This would confirm that the effects of 'noticing' the grammatical forms in the context of their communicative use does contribute to the acquisition of the forms, as claimed by Schmidt (1993) and Long (1988, 1991).

One of Teacher A's students even bought a phrasal verb dictionary. There is such a large number of phrasal verbs in existence that it would be impossible to teach them all in class. Therefore, small steps such as making students aware of phrasal verbs may help them make greater leaps in learning phrasal verbs on their own later.

Teachers would be well advised to take class time to teach phrasal verbs explicitly and encourage learners to recognize and accurately use them in their own speech and writing, rather than just expect students to learn them through multiple exposures in reading materials. It should be noted, however, that this study does not contrast incidental learning of phrasal verbs through exposure with direct instruction, since both groups were exposed to the forms in their reading. Nation (2001) emphasizes the need for multiple encounters with words in meaningful context in order to continue to learn additional information about them. Woolard (2000) supports this thinking by reporting that a single encounter with a word is not enough for students to acquire it and that research proposes at least seven exposures to learn a word.

It is important to consider that this study was restricted in the number of subjects (55), phrasal verbs used (37), and phrasal verbs tested (24), which may limit the external validity of the results. Despite these limitations this study should give teachers reason to explore and incorporate explicit instruction of phrasal verbs in the classroom.

Researchers should continue to pursue answers to the many questions that still exist about phrasal verbs and how to teach them. Results from this study indicate that it would be worthwhile for future studies to test subjects' knowledge of phrasal verbs in a variety of ways, including recognition, recall and use. Future research would also benefit from looking at the long-term retention of phrasal verbs based on the type of exposure. Would the gains achieved through direct instruction persist over time? How about the retention of phrasal verbs learned through exposure only? These would be valuable additions to the findings of this study.

References

- Bahns, J. (1993). Lexical collocations: A contrastive view. *ELT Journal*, 47, 56-63.
- Bahns, J. & Eldaw, M. (1993). Should we teach EFL students collocations? *System*, 21, 101-114.
- Biber, D., Conrad, S., Finegan, E., Johansson, S. & Leech, G. (1999). *Longman Grammar of Spoken and Written English*. London: Pearson Educated Limited.
- Biskup, D. (1992). L1 influence on learners' renderings of English collocations: A Polish/German empirical study. In Pierre J. Arnaud & Henri Bejoint (eds.), *Vocabulary and Applied Linguistics*, 85-93. London: Macmillan.
- Bolinger, D. (1971). *The phrasal verb in English*. Cambridge: Harvard University Press.
- Celce-Murcia, M. & Larsen-Freeman, D. (1999). *The Grammar Book: An ESL/EFL Teacher's Course* (2nd edn.). Heinle & Heinle Publishers.
- Conzett, J. (2000). Integrating collocation into a reading & writing course. In Michael Lewis (ed.), *Teaching collocation: Further developments in the lexical approach*. 70-86. Boston: Heinle.
- Cornell, A. (1985). Realistic goals in teaching and learning phrasal verbs. *IRAL*, 23, 269-280.
- Dagut, M. & Laufer, B. (1985). Avoidance of phrasal verbs—A case for contrastive analysis. *Studies in Second Language Acquisition*, 7, 73-79.
- Darwin, C.M. & Gray, L.S. (1999). Going after the phrasal verb: An alternative approach to classification. *TESOL Quarterly*, 33, 65-83.
- DeCarrico, J. S. (2001). Vocabulary learning and teaching. In Marianne Celce-Murcia (ed.), *Teaching English as a second or foreign language* (3rd edn.). 285-299. Boston: Heinle & Heinle.
- Hammontree, M. (1961). *Albert Einstein: Young Thinker*. New York: Aladdin Paperbacks.
- Hill, J. (2000). Revising priorities: from grammatical failure to collocational success. In Michael Lewis (ed.), *Teaching collocation: Further developments in the lexical approach*. 47-69. Boston: Heinle.
- Hugo, V. (1995). *Les Misérables*. Adapted by Monica Kulling. New York: Random House.
- Kennedy, G. (2003). Amplifier collocations in the British National Corpus: Implications for English language teaching. *TESOL Quarterly*, 37, 467-487.
- Liao, Y., & Fukuya, Y. (2004). Avoidance of phrasal verbs: The case of Chinese learners of English. *Language Learning*, 54, 193-226.
- Lewis, M. (2000). There is nothing as practical as a good theory. In Michael Lewis (ed.), *Teaching collocation: Further developments in the lexical approach*. 10-27. Boston: Heinle.
- Long, M. (1991). Focus on form: A design feature in language teaching methodology. In de Bot, K., Ginsberg, R. B., & Kramsch, C. (eds.), *Foreign language research in cross-cultural perspective*. 39-52. Amsterdam: John Benjamins.
- Long, M. (1988). Instructed interlanguage development. In L. Beebe (ed.), *Issues in the Second Language Acquisition: Multiple Perspectives*. 115-141. Cambridge: Newbury House/Harper and Row.

- Lowry, L. (1989). *Number the Stars*. New York: Bantam Doubleday Dell Books for Young Readers.
- McMaster, H. P. (1997). *The effects of specific variables on ESL students' ability with phrasal verb syntax*. Provo, UT: Brigham Young University MA thesis.
- Miller, G. A. (2003). WordNet (Version 2.1). Computer software. <http://wordnet.princeton.edu/> (accessed September – December 2005) .
- Nagy, W. E., Anderson, R. & Herman, P. A. (1987). Learning word meanings from context during normal reading. *American Educational Research Journal*, 24, 237-270.
- Nagy, W. E. & Herman, P. A. (1985). Incidental vs. instructional approaches to increasing reading vocabulary. *Educational Perspectives*, 23, 16-21.
- Nation, I. S. P. (2001a). *Learning Vocabulary in Another Language*. Cambridge: Cambridge University Press.
- Nation, I. S. P. (2001b). Web Vocabulary Profiler (Version 1.0). Computer software. Adapted by Tom Cobb. http://www.er.uqam.ca/nobel/r21270/texttools/web_vp.html.
- Read, J. (2000). *Assessing vocabulary*. Cambridge: Cambridge University Press.
- Schmidt R. (1993). Awareness and Second Language Acquisition. *Annual Review of Applied Linguistics* 13, 206-226.
- Sheen, R. (2000). Comments on Clayton M. Darwin and Loretta S. Gray's "Going after the phrasal verb: An alternative approach to classification": Another reader reacts. *TESOL Quarterly*, 34, 160-164.
- Side, R. (1990). Phrasal verbs: Sorting them out. *ELT Journal*, 44, 144-152.
- Sinclair, J. (1991). *Corpus, concordance, collocation*. New York: Oxford University Press.
- Swanborn, M. S. L., & de Glosper, K. (1999). Incidental word learning while reading: A meta-analysis. *Review of Educational Research*, 69, 261-285.
- Stadelhofen, M. M. (1982). *The Freedom Side*. Syracuse: New Readers Press.
- White, E. B. (1952). *Charlotte's Web*. New York: HarperCollins Publishers, Inc.
- Woolard, G. (2000). Collocation—encouraging learner independence. In Michael Lewis (ed.), *Teaching collocation: Further developments in the lexical approach*. 28-46. Boston: Heinle.
- Wyss, R. (2003). Putting phrasal verbs into perspective. *TESOL Journal*, 12, 37-38.

Appendix A

Phrasal verb lists and definitions

Phrasal Verb List 1

LES MISERABLES

1. Strip off—Take off your clothes; to undress
2. Fool around—To play, not being serious
3. Break down—To lose control of your emotions
4. Came to—To be concerned or related to something, or having to do with or be about something

ALBERT EINSTEIN

5. Get over—To overcome something like a problem
6. Call for—To require as being useful, just or proper; to deserve something
7. Keep up—To continue something, to extend in length of time
8. Be after—To follow or to bother someone
9. Go on—To happen

NUMBER THE STARS

10. Be off—To leave

CHARLOTTE'S WEB

11. Set off—To leave
12. Carry on—To behave badly or act silly in an improper way
13. Catch on—To finally understand something that is happening, usually after some difficulty in the beginning
14. Stand by—Be ready and waiting for something to happen
15. Wipe out—To eliminate or destroy something completely so that nothing is left
16. Stand out—To be very noticeable

FREEDOM SIDE

17. Hand over—To give or surrender something or someone
18. Look after—To take care of someone or something
19. Pick up—To go and get a passenger and give them a ride

Phrasal Verb List 2

LES MISERABLES

1. Make out—To recognize or be able to see something with your senses
2. Go after—To chase with the purpose to catch
3. Take off—To leave

ALBERT EINSTEIN

4. Turn out—To result or end
5. Hang back—To stay behind while others leave
6. Turn in—To deliver or give something or someone to another person

NUMBER THE STARS

7. Pull up—To come to a stop when you are driving
8. Come across—To find something when you did not expect to

CHARLOTTE'S WEB

9. Tag along—To go along with someone, often when you are not invited
10. Prick up—Raise your ears to listen closely
11. Fall for—To be tricked or be deceived, or believe a lie
12. Put up—To preserve something in a can
13. Hang around—To stay around a place
14. Shape up—To develop in a positive way

FREEDOM SIDE

15. Amount to—To develop into
16. Slip out—To go out or leave in a sneaky or secret way
17. Break into—To express or say something spontaneously (doing something right away without really thinking about it)
18. Wait on—Work for or be a servant to someone

□

Appendix B**Pretest/posttest****Gender (Male or Female):****Age:****Native Language:****Student Identification #:****Reading Teacher:****PART 1**

Directions: Circle the answer of the two-word verb that best fits for each sentence below. Please answer every question. This test should not take more than 30 minutes.

1. She looked around at the people at the party, wondering if she could quickly _____ unnoticed.
 - a. slip out
 - b. get on
 - c. go after
 - d. get along
 - e. be after
2. She had not heard from her boyfriend in many weeks, so when she picked up the phone and heard his voice on the other end, it made her _____ a smile.
 - a. fall for
 - b. put inc. hold out
 - d. break into
 - e. keep on
3. Why would she _____ outside waiting for you when it is such a cold night?
 - a. hang around
 - b. come off
 - c. watch over
 - d. dwell on
 - e. stand for
4. When it _____ skiing, he is the best one to teach you, because he has gone skiing every winter since he was a child.
 - a. figures on
 - b. comes to
 - c. tries on
 - d. plays around
 - e. sets about

5. Maybe you should leave your grandfather in the hospital unless you can find a nurse to come and _____ him in your house.
 - a. watch out
 - b. put up
 - c. stay up
 - d. settle on
 - e. look after
6. It takes time to _____ the death of a loved one.
 - a. get over
 - b. go off
 - c. put back
 - d. get by
 - e. take over
7. An important decision _____ a lot of careful thinking and extra planning.
 - a. sets out
 - b. does over
 - c. calls for
 - d. gets in
 - e. picks out
8. The babysitter finally yelled at the child who was throwing toys and hitting his younger brother, "Stop _____ like this or else I will tell your parents!"
 - a. pricking up
 - b. stripping off
 - c. carrying on
 - d. hanging about
 - e. talking over
9. Last night, I _____ a word that I had never seen before.
 - a. caught on
 - b. showed up
 - c. looked in
 - d. came across
 - e. checked by
10. Most of the boys ran quickly back to class, but one boy _____, hoping to have an opportunity to talk with the pretty girl.
 - a. came about
 - b. hung back
 - c. flared up
 - d. got back
 - e. called up
11. The lights in this room are so bad that it is hard to _____ the faces in this photograph.
 - a. see off
 - b. find out
 - c. take on
 - d. do up
 - e. make out

PART 2

Directions: Create a sentence using the two-word verb below that shows you understand the meaning of the two-word verb. If you cannot think of a sentence, write an "X" in the blank.

12. amount to

13. shape up

14. break down

15. set off

PART 3

Directions: Each sentence below is missing a two-word verb. In each blank, write the best two-word verb you would use to complete the sentence that begins with the letter(s) shown.

If you cannot think of a two-word verb for the sentence, write an "X" in the blank.

16. Patience with customers and taking correct food orders are two qualities that are necessary if you are planning to w_____ tables for a living.

17. The bird flu is an example of a dangerous disease that could wi_____ most of the human population if we are not careful.

18. Whenever there is a fight g_____ between my parents, I try to stay away and let them decide what to do.

19. Even though she spent hours cooking the special dinner, it did not t_____ the way that she wanted it to.

20. Maybe you should eat now if you need to t_____ soon to get home for your favorite television program.

21. Even though it would be late, he t_____ his English paper to the teacher hoping to get a few points.

22. Please don't fo_____ inside the house with the basketball because you might break my new expensive vase from Europe.

23. When I saw my friend's car, I p_____ behind her at the stoplight and honked my horn to say hello.

24. There was something different about this beautiful girl that made her s_____ from the rest of the girls in the class so that people wanted to keep staring at her.

When you are finished, make sure you answered every question and that you included all the information such as your gender, age, native language, reading teacher, and student identification number on the top of the first page.

Appendix C

Reading passages

One example reading passage is included below. It contains List 1 phrasal verbs (which are in bold print for convenience in locating them; however, for the study, they were not in bold print).

A People With Courage

Denmark is a small country in Scandinavia. Yet, though it is small enough that not very many people know anything about it, the Danish people should always be known and remembered for their big hearts, because when it **came** to sacrificing everything they had, they cared enough to save their Jewish friends who were in danger during World War II even though they could have been killed by doing so. In fact, they were so kind and generous to the Jews in giving them food, shelter, and transportation to go to a safe country, that they were able to save the majority from death by the German Nazis. This is their story....

Adolf Hitler was a German who believed that he was a better person than a Jew. Indeed, his goal was to **wipe out** all of the Jews by killing as many European Jews as he could in death camps. As the leader of Germany between 1933 and 1945, his other goal was to help it become a world power and dominate Europe by expanding into other countries. In 1939, he ordered the military to invade Poland. This event started World War II. Hitler eventually invaded many other countries, including Denmark less than a year later on April 9, 1940. The German soldiers, often referred to as Nazis, lived in Denmark for five years. They said they were “protecting” Denmark from being invaded by England and France, but really they knew it was a good place to get supplies, especially because Sweden was just across the sea. The Germans liked the Danish people because they said they were pure Aryans, the white race that Hitler said was the best. This race did not include people like Jews.

The Danish people did not like what was **going on** in their country. Instead of **standing by** and watching the Germans take full control of their country, they decided to fight back. Their Resistance groups began to sabotage the German plans, especially when it **came to** the railroad systems. For example, members of the Resistance would stop the Germans from being able to get supplies by bombing the railroads. There were so many daily acts of sabotage by the summer of 1943 that the Germans decided to declare a state of emergency and impose martial law. This meant that the German military would take control of the Danish government. For a time, the Germans didn’t kill the Jews in Denmark, but **were after** them all the time, trying to find a reason to hurt them. Then suddenly a month later, Hitler decided that it was time to **wipe out** the Jews by arresting all of Denmark’s Jews and taking them to concentration (also known as death) camps. But, for the first and only time in Nazi history, this plan did not succeed.

Thousands of Danish people refused to **stand by** as their Jewish friends and neighbors were to be killed. These were their fellow countrymen, after all. So they decided to make their own plan: they would hide the Jews and help them find their way to neutral Sweden, where they could be safe from the German Nazis. Yes, they decided that they would **look after** the Jews and help them **get over** this dangerous time in their lives. First, they refused to **hand over** the Jews, even when the soldiers would knock on their doors to find them. Often,

the Jews would **stand out** by looking different. For example, they had dark hair instead of blonde, so the Danish people carefully hid them until they each had the opportunity for the boats to come and **pick them up** and **set off** across the sea to safety in Sweden.

When the Nazi soldiers would come to the docks, hoping to use their dogs to smell humans on the boats going to Sweden, the Danes would have a surprise for them: handkerchiefs. Yes, a small piece of cloth used when someone needs to blow their nose if they have a cold. But, these handkerchiefs were special ones made by clever Swedish scientists and given to those who were trying to help the Jews. These scientists found a way to mix dried rabbit blood and a drug called cocaine to stop the dog’s sense of smell. First, the dried blood would attract the dogs, who would think they smelled human blood. Then, the cocaine would temporarily numb their noses so that the dogs could no longer smell. It is a smart way to trick the German soldiers because there was no way they could **catch on** to what was happening when their dogs got so excited when they smelled these handkerchiefs! This clever invention helped save thousands of Jews who **set off** each day to Sweden on the fisherman’s boats.

The Danes showed us that courage calls for a willing heart. It does not mean that we have all the answers or know exactly how we are going to do everything. It means that we will not simply **stand by** and watch evil happen around us and think that there is nothing we can do about it. Though there were some other people in Europe who decided to stop what Hitler did to the Jews, it was the Danish people as a whole who **stand out** amongst many other countries as a people who were willing to refuse to let evil win. They didn’t simply help one or two people, but **kept up** their plan until they had saved literally thousands of their fellow Jews. They showed us what true love and courage really are.

Reading Comprehension Questions

- Who does “it” refer to in paragraph 2 when it says Hitler wanted to “help it become a world power?”
 - world power
 - Europe
 - Germany
 - other countries
- Which of the following things did the Danish people NOT do to help the Jews in their country?
 - provide a place to hide them
 - give them food
 - offer them boat rides to Sweden
 - give them special handkerchiefs
- What is the main idea of this passage?
 - The Danes developed a handkerchief that hurt the sense of smell of German soldiers’ dogs.
 - The Danes are unique because they saved most of the Jews in their country during World War

- c. The Danish Resistance fought hard against the Germans by using daily acts of sabotage.
- d. Hitler liked the Danish people because he said they were of the pure Aryan race, just like the Germans.

Authors

JULINA A. MAGNUSSON, M.A. TESOL, Lecturer/Curriculum Coordinator, English as a Second Language Program, Utah Valley University, Orem, UT 84057. Specializations: Second-language reading and vocabulary acquisition.

C. RAY GRAHAM, Ph.D., Associate Professor, Teacher Education, Department of Education, Brigham Young University. Specializations: Second language acquisition, ESL K-12, and Computer assisted language learning.

The Teaching of L2 Pronunciation through Processing Instruction

Manuela Gonzales-Bueno
The University of Kansas

Marcela Quintana-Lara
Universidad Arturo Prat

The goal of this study is to pilot test whether the instructional approach known as Processing Instruction could be adapted to the teaching of second language (L2) pronunciation. The target sounds selected were the Spanish tap and trill. Three groups of high school students of Spanish as a foreign language participated in the study. One group received the Pronunciation Processing Instruction treatment. A second group received a traditional listen-repeat treatment, and a third had no treatment. The duration of each treatment was nine weeks. The students' perception of these sounds was determined by a discrimination test and an identification test given before and after the implementation of each pedagogical approach. Performance in production was established by spectrographic analysis of the pre- and post-recorded data. A descriptive analysis of each groups' perception data demonstrated no difference in the pre- and post-treatment results. However, a production data analysis revealed a trend towards improvement in the group that received Pronunciation Processing Instruction. The research and pedagogical implications follow.

Introduction

The goal of this study is to pilot test whether the instructional approach *Processing Instruction* could be adapted to the teaching of L2 pronunciation. *Processing Instruction* (PI) is the pedagogical application of the *Input Processing Model* (VanPatten, 1996) to teach foreign language grammar in a classroom setting (VanPatten & Cadierno, 1993; VanPatten & Oikkenon, 1996). *Processing Instruction* essentially consists of exposing learners to strategically controlled drills[1] that require their active attention to the form of the input in order to attach meaning to it. The model assumes, by intentionally delaying production of the target language, the learner will have already processed its grammatical system (one of the formal components of the language) and will be capable of accurately producing grammatically correct language.

Similarly to how VanPatten's *Input Processing Model* considers the learner's way of processing L2 grammatical features, there are theoretical models that consider the learner's particular way of processing L2 phonological features. The processing of both grammatical and phonological features is influenced by a learner's native language. In the case of pronunciation, it is a matter of how learners perceive the L2 phonetic features filtered through their own first language (L1) phonological system. This study locates pronunciation teaching within these theoretical frames accounting for L1 and L2 sounds that are relatively more or less difficult to acquire by L2 learners depending on the degree of difference and/or similarity between the two. One of these models is Flege's (1995) *Speech Learning Model* (SLM). SLM states that the greater the perceived distance is on an L2 sound, the more likely a separate category will be established for the L2 sound.

Therefore, it will be acquired more easily, whereas those sounds that are similar (the perceived distance is minimal) will cause the most problems, because L2 learners will not be able to distinguish the subtle differences and establish separate categories. Another model is Best's (1995) *Perceptual Assimilation Model* (PAM). According to PAM, learners are likely to associate unfamiliar L2 sounds with familiar L1 sounds and categorize them depending on the degree of similarity, which will affect the degree of difficulty in acquisition. A third model is Kuhl's and Inverson's (1995) *Native Language Magnet Model* (NLM). In this model, "prototypes," or best exemplars, of phonetic L1 categories function as perceptual "magnets." The nearer an L2 sound is to a magnet, the more it will be associated with the native language category, making it hard to distinguish from the native sound.

Given that, similar to VanPatten's *Input Processing Model*, these models consider the influence that the native language exerts on the acquisition of L2 linguistic features, it might be possible to adapt the pedagogical technique derived from IP, that is, Processing Instruction (PI), to the teaching of pronunciation. Having framed this study within a general frame of L2 phonology acquisition that takes into consideration the learners' perception of L2 sounds (exemplified by SLM, PAM and NLM above), the study attempts to pilot test the feasibility of adapting PI to the teaching of pronunciation to a small group of participants. In this case, we will refer to this adaptation as *Pronunciation Processing Instruction*.

Thus, *Pronunciation Processing Instruction* (PPI from now on) consists of exposing learners to strategically controlled listening drills that require their active attention to the phonetic form of the aural input in order to attach meaning to it, so they will process and intake the target language phonological system. As a result, learners will be capable of producing phonologically accurate oral language.

In a previous study, González-Bueno (2005) attempted to help a Spanish-English bilingual child overcome articulatory difficulties in producing the Spanish tap and trill. In this study, the perception and production activities proved to be effective in the attainment of native-like production of the Spanish tap and trill for this bilingual child. Since English speakers learning Spanish as a foreign language also show difficulties with the Spanish tap and trill, it is thought that this pedagogical approach may help these learners as well.

In this study, any effect on the perception or production of the Spanish rhotics by high school students learning Spanish as a foreign language will be an indication of the feasibility of adapting PI to the teaching of L2 pronunciation. In that way, we hope to open a new possibility for researchers interested in addressing pronunciation problems that learners of foreign languages in general might encounter in their learning process.

Literature Review

Although studies that examine the effects of different types of formal pronunciation instruction and their positive effects are abundant (Cenoz & García-Lecumberri, 1999; Derwing, Munro, & Wiebe, 1998; Derwing & Rossiter, 2003; Elliot, 1997; González-Bueno, 1997; Kendrick, 1997; MacDonald, Yule, & Powers, 1994), it is still not clear which particular type of instruction is best for the acquisition and/or improvement of L2 pronunciation. This circumstance is due to the diverse nature of the experimental designs and the different types of instructional procedures implemented in the above referenced studies. Suter (1976) asserted that if it were possible to measure the quality of the teaching aimed at improving L2 pronunciation, then studies would demonstrate a more significant relationship between quality of teaching and pronunciation accuracy.

In addition, methods used in previous studies have often been far from the functional objectives of communicative-oriented teaching methodologies, which call for exercises that are meaning-driven. In the past, foreign language methods that addressed the teaching of pronunciation (for example, the Audiolingual Method) used mechanical drills under the assumption that learners would internalize the correct forms by meaningless repetition. Communicative-oriented teaching methodologies advocates

(Celce-Murcia, 1987) recommend finding lexical and grammatical contexts containing many natural occurrences of the problematic sound and developing communicative tasks that incorporate those lexical and grammatical contexts. In this way, students can practice the learned pronunciation rule in a number of contexts ranging from controlled to open-ended communicative exercises.

Pronunciation Processing Instruction might meet these pedagogical requirements of communicative-oriented teaching methodologies. Unlike the old mechanical drills of the Audiolingual Method, and mirroring those used in PI, the drills used in PPI are meaning-based, so input is processed by attaching meaning to form at deeper levels of language processing (Lee & VanPatten, 2003).

Empirical investigations have shown PI to be a highly effective teaching strategy for the development of grammatical knowledge (Cadierno, 1995; Cheng, 1995, 2002; Farley, 2001; VanPatten & Cadierno, 1993; VanPatten & Oikkenon, 1996; VanPatten & Sanz, 1995). These studies show that by raising students' awareness of their processing strategies and providing activities that prompt learners to notice the meaning of the targeted structure, they will construct more accurate grammatical representations of the target language (Collentine, 2002). Similarly, a more accurate phonological representation of the target language may be facilitated by an adoption of the PI approach to the teaching of pronunciation. All six PI guidelines can easily be followed in teaching pronunciation by: 1) teaching one sound at a time; 2) using meaningful drills, so meaning is the focus; 3) having students "do something" with the input by involving them in games and activities; 4) using oral and visual (images) input, given the nature of pronunciation; 5) moving from words to sentences to discourse; and 6) keeping in mind the phonological processing strategies. There are two main phonological processing strategies that need to be considered: a) learners of a foreign language tend to process foreign sounds according to degree of similarity to or difference from their L1 sounds (Best, 1995; Flege, 1995; Kuhl and Inverson, 1995); and b) learners process input for meaning before they process it for form. This last strategy is addressed above in numbers 2 (using meaningful drills, so meaning is the focus) and 3 (having students "do something" with the input by involving them in games and activities).

Table 1 shows how the guidelines of PI have been adapted to the teaching of pronunciation in this study.

Table 1. Pronunciation Processing Instruction

Grammar Processing Instruction (VanPatten, 1996)	Pronunciation Processing Instruction (González-Bueno, 2005)
1. Teach only one thing at a time.	1. One target sound: Spanish rhotics.
2. Keep meaning in focus	2. Students are asked to choose between two words of two different meanings according to what they hear. They hear: a. coral b. corral Students have to select the visual (pictures) that corresponds to what they hear. Students do not have access to the written script, only to the visuals.
3. Have students do something with the input.	3. After determining which word, "coral" or "corral" was heard, students have to perform some kind of task depending on the activity, e.g., bingo game, "flyswatter"... (see appendices).
4. Use both written and oral input.	4. Since the focus of this adaptation is pronunciation, that is, oral speech, written input is not used, only oral and visual (images).
5. Move from sentence to connected discourse.	5. Since the target form is the individual sound, activities go from words in minimal pairs containing that sound, to sentences, to connected discourse.
6. Keep the psycholinguistic processing strategies in mind.	6. In the realm of phonology, there are two main processing strategies that need to be taken into consideration. a) Learners of a foreign language tend to process foreign sounds according to their native language's phonological system (Best, 1995; Flege, 1995; Kuhl and Inverson, 1995). b) Learners process input for meaning before they process it for form. This strategy is addressed above in numbers two and three.

Target Segments

The Spanish tap and trill segments are chosen over other segments in this study due to their difficulty of acquisition, reflected in their common mispronunciation by English speakers. This would be expected since voiced alveolar rhotic sounds are the last acquired in all languages (Hernández-Pina, 1984; Jakobson, 1941; Montes-Giraldo, 1971; Ruke-Dravina, 1965). They are more marked than other earlier-acquired sounds and offer a great variety of interlanguage production. The articulation of the rhotic in English and Spanish is very different (Delattre, 1965). English /ɹ/ is an alveolar approximant whereas the Spanish sound is either a tap /t̬/ or a trill /r̄/. English alveolar approximant /ɹ/ is represented by "r," as in "rat." Spanish tap /t̬/ is represented by "r," as in "aro" 'ring.' And Spanish trill /r̄/ is represented by "r" in word initial position, as in "rico" 'rich' and after "n," "l," and "s," as in "Enrique," "alrededor" 'around,' and "Israel," or by "rr" in intervocalic position, as in "arriba" 'up.'

The articulation of the English alveolar approximant /ɹ/ is not as complex as that of the Spanish tap /t̬/ and trill /r̄/, and does not require as much articulatory effort as the Spanish counterparts do. The tap /t̬/ does exist in English as an allophone of the phonemes /t/ and /d/ (represented by 'tt' and 'dd' in intervocalic position – as in the English words "butter" and "ladder") when pronounced in *allegretto* style. The trill, however, is a novel sound for the native English speaker. The second language acquisition models mentioned earlier state that new L2 sounds are easier to learn than L2 sounds that have counterparts in the L1 (Flege, 1995; Best, 1995; Kuhl & Inverson, 1995). According to this, the Spanish trill should be easier to learn than the tap. However, any teacher of Spanish would agree that the trilled articulation of /r̄/ is particularly difficult for learners of Spanish as a foreign language to master given its articulatory complexity (Hammond, 1999, 2000a). Some linguists point out that the trilled pronunciation of Spanish /r̄/ is overvalued, and that it should be considered no more than an allophonic variation of the tap /t̬/ (Hammond, 1999, 2000a, 2000b; Núñez-Cedeño, 1989). Some of the reasons argued are that the two sounds contrast only in intervocalic environments (Hammond, 1999, p. 135), and that the trilled /r̄/ does not occur in the speech of the vast majority of native Spanish speakers (Hammond, 1999, p. 147). It is beyond the scope of this study to solve this argument, so for the purpose of testing the instructional approach with which we are concerned, the two Spanish pronunciations /t̬/ and /r̄/ – be they phonemic or allophonic – are being targeted.

The importance of developing an instructional method for teaching Spanish rhotic sounds to learners of Spanish as a foreign language is that there are Spanish linguistic contexts in which the mispronunciation of both tap and trill sounds might lead to miscommunication. This is particularly true in the case of pairs of words that differ only in these two sounds (minimal pairs), such as "pera" 'pear' and "perra" 'female dog.' Even when the situational context might help dismiss this type of confusion, the mere presence of a heavy foreign accent will interfere with effective communication (Munro, 1998; McCall, 2001) and will cause negative reactions from native speakers (Morley, 1994; Munro, Derwing, & Sato, 2006). In addition, some L2 learners place a great weight upon having a good accent (Derwing & Munro, 2005; Levis & Grant, 2003; Setter & Jenkins, 2005), so they will benefit from pedagogical approaches that will help them attain this goal.

In order to observe the efficacy of *Pronunciation Processing Instruction* on the Spanish rhotic sounds, we designed the present pilot study following the methodology below.

Method

Participants

Twenty-four students in a suburban high school in the Midwest (nine males and 15 females) participated in the study. The 15-17-year-old participants, all native English speakers, were learning Spanish as a foreign language. They were second-year Spanish high school students from three different classes. The instructor reported that participants had not received any systematic pronunciation training prior to this project. The instructor, a licensed Spanish teacher, had taken a graduate seminar during which she was trained in PPI. Each intact class was randomly assigned to a different approach. The first group received PPI (N = 9), the second received a traditional pronunciation approach (N = 9), and the third did not receive any pronunciation training (N = 6). Although no assessment was administered at the time, participants' proficiency was perceived by their instructor to be approximately equivalent to American Council on the Teaching of Foreign Languages (ACTFL) Novice-High. No hearing or speech impediment was reported.

Pedagogical Procedures

As previously stated, the pedagogical treatment for the PPI group followed the PPI guidelines and consisted of presenting the target words in minimal pairs through a variety of formats, starting with activities that focused on perception and followed by production ones at a later time. The instructor presented one activity per day for the first 10 minutes of class over a period of nine weeks. Adhering to the PI assumptions, production was deliberately delayed by dedicating the first seven weeks to perception activities and the last two weeks to production activities.

The traditional group received instruction from the classroom teacher only in a traditional listen-and-repeat format, but also for 10 minutes and for nine weeks. Instruction consisted of presenting the same target words used in the PPI group on an overhead transparency so students would repeat them aloud after the teacher.

The non-treatment group received no instruction in pronunciation at all. They received regular instruction from their classroom teacher throughout the study. No participants, in any of the three groups, were assigned any out-of-class work related to these activities.

Instructional materials

A set of instructional materials for the perception and production activities was developed for the PPI group. These materials were created from a set of 15 minimal pairs of real words targeting the Spanish tap /t/ and trill /r/. These words were selected because it was easy to combine them in meaningful contexts. Frequency of use was not taken into consideration. These pairs were: *cero/cerro*; *coro/corro*; *pero/perro*; *caro/carro*; *vara/barra*; *enterar/enterrar*; *varo/barro*; *coral/corral*; *moro/morro*; *pera/perra*; *para/parra*; *toro/torro*; *encerar/encerrar*; *choro/chorro*; *pira/pirra*. These words were always presented in pairs, so participants had to make a choice between the two based on meaning. Visuals representing the meanings of all 30 words were used for perception and production activities (see Appendix A).

Perception

There were two types of perception activities: 1) games and, 2) answering comprehension questions while listening to a story (see Appendix B and C). These activities involved all 15 minimal pairs, forcing listeners to choose between the two members of the pair to demonstrate comprehension, but never having to produce the target sounds.

Production

All of the materials for the production activities were also created using the same 15 minimal pairs. The activities consisted of 1) games, 2) questions and answers based on class readings, and 3) storytelling (see Appendix D).

Data collection

The pre- and post-intervention data were collected through the administration of pre- and post-tests. The pre-test (perception and production) occurred at the beginning of the semester while the post-test (same as the pre-test) was given nine weeks later. The perception and production tests (in that order) were administered in the school language lab on the same day, lasting a total of 90 minutes.

Perception

The perception test included a discrimination task and an identification task (Appendix E). The discrimination task was designed from the 15 minimal pairs mentioned previously, along with 13 new additional minimal pairs (see appendix E). Of the 60 items on the task, 28 were minimal pairs (*pero-perro*); the remaining 32 were pairs of the same word (*pero-pero* or *perro-perro*). Students listened to a recording of a native speaker saying each pair of words. Afterwards, students marked the column indicating whether the words were the same or different.

For the identification task, 56 individual words taken from the same 28 minimal pairs in the discrimination task were used. Students listened to each word at a time, identifying the one heard by marking it on the answer sheet (Appendix E).

Prior to each task, participants received a training session consisting of five test items in order to familiarize them with the nature of the tasks.

Production

The production test included a read-aloud task containing a list of the same 28 minimal pairs used in the perception test. Students were instructed to read aloud the words at a normal pace, pausing between the two words in the pair. The teacher recorded the students' oral production on computers using digital recording software called DAVID (Digital Audio/Video Interactive Decoder) (Davidson, 1996).

Data analysis

Given the preliminary nature of this study and the small sample size, the data was analyzed in a descriptive way in order to describe trends or patterns in their development towards a more native-like performance.

Perception

For both tasks – discrimination and identification – the results of the perception pre- and post-tests were coded by the researchers assigning a value of 0 for incorrect and 1 for correct responses. The resulting percentages of correct and incorrect responses were obtained and recorded.

Production

The participants' production of Spanish /t/ and /r/ were recorded and analyzed spectrographically by the researchers using Praat (Boersma & Weenik, 2007). Not all data could be analyzed due to the low quality of some of the recordings. Participants whose data were problematic[2] were eliminated from the analysis, resulting in an even

smaller sample than that with which we started. Only data from 19 out of the original 24 participants were considered for analysis: PPI group (N = 8), traditional group (N = 7), and non-treatment group (N = 4).

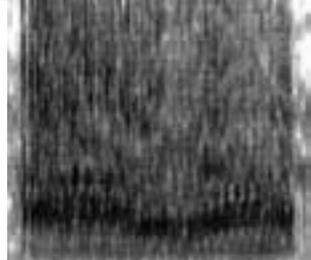
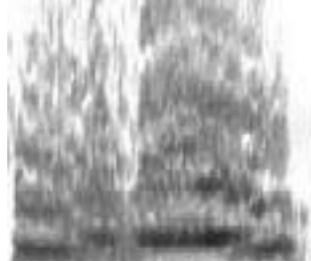
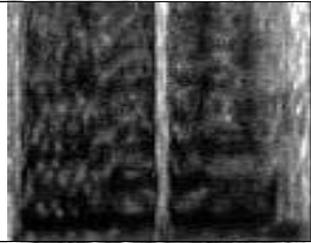
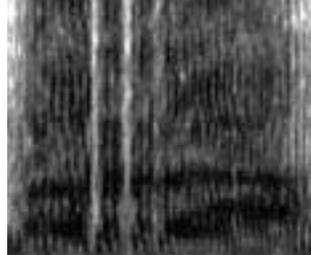
Acoustic parameters of Spanish /t/ and /r/ include: duration; intensity; F1, F2 and F3 frequency; and number of interruptions (one interruption for the /t/, multiple interruptions for the /r/) (Alarcos-Llorach, 1986; Martínez-Celdrán, 1994; Navarro-Tomás, 1990; Quilis & Hernández, 1990). However, only the latter (number of interruptions) was considered for this study because it was the most salient and easiest parameter to observe. Interruption is defined as the visual representation in a spectrogram of the contact between the tongue blade and the alveolar ridge.

Data were coded according to the following criteria:

- 0 = *English equivalent*: Subject's attempts to produce a Spanish flap or a trill result in the English alveolar approximant.
- 1 = *Interlanguage variety*: The subject tries to produce the Spanish sound by moving away from the native alveolar approximant. However, neither a flap nor a trill is produced.
- 2 = *Correct flap* (when flap is the target); or *Partially correct trill* (when trill is the target): The tip of the tongue makes contact with the alveolar ridge only once, resulting in a flap.
- 3 = *Correct trill* (when trill is the target) or *hyper-articulation* (when flap is the target): The tip of the tongue makes contact with the alveolar ridge several times, resulting in a trill.

See table 2 for a visual display of this coding.

Table 2. *Data Coding and Participants' Spectrogram Samples*

Code	Sound	Explanation	Interpretation	Participants' Spectrogram Sample
0	[ʔ] English Alveolar Approximant	Subject's attempts to produce a Spanish flap or a trill result in the English alveolar approximant.	English equivalent	
1	[*] Interlanguage Variety	The subject tries to produce the Spanish sound by getting away from the native alveolar approximant. However, neither a flap nor a trill is produced.	Interlanguage	
2	[ʔ] Flap	The tip of the tongue makes contact with the alveolar ridge only once, resulting in a flap.	Correct if target sound is flap. Partially correct if target sound is trill.	
3	[r] Trill	The tip of the tongue makes contact with the alveolar ridge several times, resulting in a trill.	Correct if target sound is trill. Hyper-articulation if target sound is flap.	

Once all the responses were coded, an average of each participant percentage score for each category was calculated. Then, an average of all participants for each group and category was obtained.

Results

Perception

Perception results are drawn from the discrimination and identification test scores. For both tasks, percentages of correct responses were obtained. See table 3.

Table 3. Average Percent of Correct Perception Scores across Participants per Group and Task

	Discrimination		Identification	
	Pre-test	Post-test	Pre-test	Post-test
PPI (N=9)	76	77.4	80	85.7
Traditional (N=9)	79.8	79.1	90.2	89.7
Non-treatment (N=6)	69.6	76	80.2	81

As it can be seen, all three groups obtained a high percentage of correct responses in both tasks. Therefore, the PPI group did not perform better than the other two groups in neither the pre- nor the post-test.

Production

Production results were analyzed by looking at the distribution of the data within the four criteria of analysis previously established (0 =English equivalent; 1 = Interlanguage; 2 = Correct if the target sound is a flap/Partially correct if the target sound is a trill; 3 = Correct if the target sound is a trill /hyper-articulation if the target sound is a flap). This analysis was expected to identify the category in which data that changed from pre-test to post-test fell, indicating a positive move away from the English-like production and thus an approximation to the target forms. Each group was individually analyzed and results are presented below.

Tap

The PPI group did not change production of English-like segments (0) from pre-test (87.7%) to post-test (88%). The other three categories were redistributed as follows: the interlanguage productions (1) increased from 0.89% at the pre-test to 1.8% at the post-test; the target sound (2) was produced only 0.44% at the pre-test, and increased to 8.9% at the post-test; and the hyper-articulation cases (3) decreased from 11% at the pre-test to 1.3% at the post-test.

The traditional group decreased the production of English-like segments (0) from 74% at the pre-test to 50% at the post-test. The interlanguage productions (1) increased from 7.2% at the pre-test to 16.2% at the post-test. The target sound (2) was produced only 2.8% of the time at the pre-test, and increased to 6.5% at the post-test. And the hyper-articulation cases (3) increased from 16% at the pre-test to 27.3% at the post-test.

The non-treatment group did not change production of English-like segments (0) from pre-test (65%) to post-test (64%). The interlanguage productions (1) decreased from 3.5% at the pretest to 2.7% at the post-test. The target sound (2) was produced 7.5% of the time at the pre-test, but decreased to 2.6% at the post-test. And the hyper-articulation cases (3) increased from 24.5% at the pre-test to 30.4% at the post-test. See Table 4.

Table 4. Average Percent of Pre-Test-Post-Test Correct Tap Production Scores across Participants per Group and Category

Tap	Pre-test				Post-test			
	0	1	2	3	0	1	2	3
PPI N=8	87.7	.89	.44	11	88	1.8	8.9	1.3
Traditional N=7	74	7.2	2.8	16	50	16.2	6.5	27.3
Non treatment N=4	64.5	3.5	7.5	24.5	64.3	2.7	2.6	30.4

Trill

The PPI group reduced the percentage of productions of English-like segments (0) from 64.5% to 58% at the post-test. The interlanguage pronunciation (1) increased from 5% at the pre-test to 11% at the post-test. The production of the target sound (trill) as a tap (2) was reduced from 14% at the pre-test to 7.3% at the post-test. And the correct pronunciation of the target sound (3) increased from 16.5% at the pre-test to 23.7% at the post-test.

The traditional group reduced the percentage of productions of English-like segments (0) from 47.4% to 19.4% at the post-test. The interlanguage pronunciation (1) decreased from 12.8% at the pre-test to 10.6% at the post-test. The production of the target sound (trill) as a tap (2) increased from 13.3% at the pre-test to 22.5% at the post-test. And the correct pronunciation of the target sound (3) increased from 26.5% at the pre-test to 47.5% at the post-test.

The non-treatment group reduced the percentage of productions of English-like segments (0) from 34.7% to 13.4% at the post-test. The interlanguage pronunciation (1) decreased from 5.8% at the pre-test to 0.9% at the post-test. The production of the target sound (trill) as a tap (2) increased from 38.7% at the pre-test to 50.9% at the post-test. And the correct pronunciation of the target sound (3) increased from 20.8% at the pre-test to 34.8% at the post-test. See Table 5.

Table 5. Average Percent of Pre-Test-Post-Test Correct Trill Production Scores across Participants per Group and Category

Trill	Pre-test				Post-test			
	0	1	2	3	0	1	2	3
PPI N=8	64.5	5	14	16.5	58	11	7.3	23.7
Traditional N=7	47.4	12.8	13.3	26.5	19.4	10.6	22.5	47.5
Non treatment N=4	34.7	5.8	38.7	20.8	13.4	.9	50.9	34.8

This approach to data analysis allowed us to see trends in the redistribution of the data in the cases where participants moved away from their English-like production. The observed trends are discussed in the next section.

Discussion

Perception

Anecdotal evidence from Spanish-learning situations shows that the Spanish /r/ is not difficult for English-speaking learners to discriminate from the Spanish /ʀ/, whereas it is very difficult to produce. However, since PI postulates that improving the processing of the input should lead to improvement of the corresponding output, more time was devoted to perception activities (seven weeks) than to production activities (two weeks) during the implementation of the pedagogical treatment. Our

data support the anecdotal evidence that the perception of Spanish /ʀ/ and /r/ is not a problem. Therefore, participants in all three groups were able to discriminate and identify the Spanish /ʀ/ and /r/ with the same level of accuracy at both the pre-test and post-test, regardless of the pedagogical treatment.

An explanation for these results might be that the Spanish /r/, even though it poses articulatory difficulties to the English-speaking learner, is a new sound without an L1 counterpart. To frame it within the theoretical models discussed in the introduction, Spanish /r/ is perceived as distant from any phonetic L1 sound, and difficult to assimilate to a familiar L1 sound, making it easy to establish a new category for it (Best, 1995; Flege, 1995). Similarly, English does not have a prototype sound that could have attracted Spanish /r/ to it, making it easy to distinguish from an L1 sound (Kuhl and Inverson, 1995). In other words, the Spanish /r/ is perceptually salient to L2 learners without the help of any instructional guidance. On the other hand, the Spanish /ʀ/ is easy to assimilate to the familiar English /ʀ/, which is an L1 prototype that will attract /ʀ/ to it, making it difficult to acquire. However, when the two sounds were contrasted in minimal pairs, as in the case of the discrimination and identification tasks used in this study, all three groups were able to perform well given the saliency of one of them, i.e., the trill. Had PPI been applied to the teaching of Spanish phonetic features less salient to the English-speaking learner (e.g., vowels), the results might have been different – that is, the percentage of correct responses at the post-test might have been higher.

Production

As stated earlier, the quantity of production data was significantly reduced, thus threatening the reliability of the results. Nevertheless, given the pilot nature of this study, the available data were deemed worthy of analyzing.

For both target sounds, a portion of the data gathered from all three groups, remained within the English-like range at the post-test. (Tap: PPI, 88%; traditional, 50%; non-treatment, 64.3%. Trill: PPI, 58%; traditional, 19.4%; non-treatment, 13.4%.) The remaining data did move away from the English-like category (0) towards the other three categories (interlanguage, target sound, and hypercorrection). Following is a discussion of the observed patterns in each group.

The PPI group showed increased accuracy (i.e., improvement) in the production of both the tap and the trill. The improvement in the tap was due to an increase in the number of the target sounds from 0.44% to 8.9%, while decreasing the production of hyper-articulations (trill) from 11% to 1.3%. The improvement in the productions of the trill, on the other hand, was due mainly to an increase in the interlanguage production from 5% to 11% and the correct target productions (trill) from 16.5% to 23.7%, whereas there was a decrease in the English-like from 64.5% to 58% and the non-target tap pronunciation from 14% to 7.3%. It would seem that, as a result of the treatment, the PPI subjects might have become more aware of the distinction between the tap and the trill, and this awareness might have prompted them to avoid the tap-like production of trills while increasing the target sound at the post-test. In other words, this group increased the production of taps when this was the target sound and decreased its production when it was not the target sound. This pattern of movement towards improvement is only observed in the PPI group; the other two groups tended to increase hyper-articulation productions in the case of the tap (traditional, 16% to 27.3%; non-treatment, 24.5% to 30.4%) and increased the production of taps when the trill was the target sound (traditional, 13.3% to 22.5%; non-treatment, 38.7% to 50.9%). In the cases in which the traditional and

non-treatment groups did decrease the English-like production and increased the target sound, the traditional group did slightly better than the non-treatment group. As stated above, the pattern of movement towards improvement is stronger in the PPI group than in the traditional and non-treatment groups. These observations offer a glimpse to the positive effect that instruction, and in particular PPI, may have on L2 pronunciation.

However, we cannot ignore that this trend was observed only on a small portion of the data. A high percentage of the production data remained unchanged, staying within the English-like production range.

Conclusion

In this pilot study, we wanted to explore the effect that PPI would have on the pronunciation of the Spanish tap and trill by high school students learning Spanish as a foreign language. The descriptive analysis did not show that the PPI group was much better than the traditional or the non-treatment groups in either the perception or the production tasks. In perception, and due to the saliency of the trill, participants in all three groups were able to discriminate and identify the Spanish tap and trill on the pre-test, resulting in no changes on the post-test.

In production, only a small portion of the data improved at the post-test as a major portion of the data remained unchanged. Although these results are far from being conclusive as to the applicability of PI to the teaching of pronunciation, we cannot ignore the fact that a more rigorous implementation of PPI might have resulted in more promising outcomes. It is possible that the instructor may not have strictly followed the PPI procedure. Constant researcher supervision was not available. Another consequence of the lack of control during implementation is that we do not know the speed with which the input passage was read, and to what degree it was slowed down, which might have made the target segments sound unnatural.

This is a common problem. Classroom-based studies do not allow for the same degree of control as lab-based studies, but are so important in the application of research findings. Accordingly, an effort must be made to bring a higher level of control to research done in the language classroom.

Nonetheless, the production data revealed a trend towards improvement only in the PPI group. The changes noted were concentrated on the production of the target sounds rather than on non-target sounds such as interlanguage and hyper-articulation forms. However, in the other two groups, changes concentrated more on non-target sounds (interlanguage and hyper-articulation forms) than on target sounds.

In conclusion, this study suggests that PPI might have a positive effect on the improvement of L2 pronunciation as indicated by the observed trends in the descriptive analysis of the data. For more empirical evidence on the effect of PPI in L2 pronunciation, statistical analyses should be applied – for which a larger sample than the one used in this study should be selected. Additionally, the following factors should be taken into consideration:

- Adequate recording of the data for accurate acoustic analysis;
- Selection of target sounds that are equally difficult to perceive and to produce;
- Careful implementation of the PPI procedure.

Although additional empirical studies are necessary to lend stronger support for PPI, foreign language teachers are encouraged to incorporate PPI as part of their

teaching repertoire. All indications offered by this study suggest that PPI might have a positive effect on pronunciation. Furthermore, teachers are encouraged to continue incorporating pronunciation instruction in their classrooms, because, as observed in this study, even a traditional approach yields slightly better results than no approach at all.

APPENDIX B

PERCEPTION ACTIVITIES

Matamoscas

“Matamoscas” or “flyswatter” consisted of projecting visuals of target word pairs on an overhead projector. The students heard a recording of a native speaker producing one of the words and competed to see who could first “swat” the corresponding visual. Identification cards

This activity consisted of cards with ‘r’ and ‘rr’ imprinted on them. The students held up the appropriate card after listening to the native speaker say the target word aloud.

APPENDIX C

LISTENING COMPREHENSION

The listening comprehension task consisted of listening to a story with embedded target words. The story was told by a native speaker who used 15 words with the trill segment and 12 words with the tap segment. After the storytelling, students orally answered questions focused on the target words discriminating the trill and tap segments for comprehension measurement purposes.

Un perro llamado Moro

Un *perro* llamado *Moro* viajaba por los *cerros* de *Morón* en la provincia de Sevilla. De pronto divisó a lo lejos un *carro* conducido por un hombre acompañado de su *perra*, que iba sentada junto al *morral*. Cuando *Larra*, que así se llamaba el hombre, vio a *Moro*, pensó que se trataba de un *zorro* y se dispuso a tirarle una piedra de las que llevaba en el *morral* para ahuyentar a los animales. “Mira, *Lara* le dijo a su *perra*—voy a darle en todo el *morro* a ese *zorro*. *Lara*, que vio que no era un *zorro*, sino otro *perro*, empezó a ladrar. Mientras *Larra* la calmaba, *Moro* se acercó más al *carro*. *Larra* pensó que sería más efectivo usar la *barra* de hierro que llevaba escondida en el *forro* de la chaqueta *para* usar en situaciones peligrosas. Pero cuando se dio cuenta de que *Moro* no era un *zorro*, sino otro *perro*, en vez de golpearlo, le lanzó lejos una *vara* de olivo para ahuyentarlo. *Moro*, que se dio cuenta de que allí no lo querían, corrió a esconderse en un *corral* vecino que divisó al otro lado del *cerro*. Al poco rato llegó al *corral* Ramón *Fierro*, el dueño de la granja en que se encontraba *Moro*. Venía a *encerrar* a *Soro*, un *toro fiero* que iba a vender muy *caro* en la inminente feria de ganado. Cuando *Soro* vio a *Moro*, le embistió con tanta fuerza que lo mandó a la *parra* vecina. *Ahora Moro* tenía todo el cuerpo dolorido, en vez de solamente el *morro*. El pobre *Moro*, con la *moral* por el suelo, salió del *corral* y siguió su camino por los *cerros*, tratando de evitar todos los *carros* y los *corrales* que veía por el camino.

Perception:

(Done in English, so the focus is solely on perception and not production.)

1. What kind of animal is Moro?
A dog (*perro*)
2. What means of transportation was Larra driving?
A cart (*carro*)
3. What animal did Larra think that Moro was?
A fox (*zorro*)
4. Where did Larra keep the rocks?
In his knapsack (*morral*)
5. Where did Larra intend to hit Moro?
On its nose (*morro*)
6. What did Larra throw to Moro?
A stick (*vara*)
7. Where did Moro hide from Larra?
In a corral (*corral*)
8. What kind of bull was Soro?
Fierce (*fiero*)
9. Against what did Soro throw poor Moro?
Grape vine (*parra*)
10. What did Moro have very low after this episode?
Its mood/spirit (*moral*)

APPENDIX D

PRODUCTION ACTIVITIES

Battle ship

The game “battleship” was adapted by using Clipart pictures of the target words. The students chose five “ships,” or words, covered them with a plastic disc and then tried to guess which word their partner had by naming a target word. The first person to uncover all five of their partner’s covered words won.

Bingo

Bingo cards containing all the target words were distributed to students. Students took turns being callers and had to pronounce the target word correctly in order for the other players to determine whether they had the intended word on their cards.

Concentration game

The game “concentration” required that students turned over two picture cards at a time and say the words, and then find a match.

Pictionary

Students drew target words containing either the tap or the trill on the board and other students had to say the word when they recognized it.

Questions and Answers

Students in pairs answered oral questions to elicit one of the target words. The questions were created to reflect a country life theme, which was the topic of the unit studied at the time (e.g., *En el campo, ¿dónde se encuentran las uvas? En las parras*).

Storytelling

Students chose three pictures of target words to create a story as part of a creative storytelling activity.

APPENDIX E

PERCEPTION TESTS

Discrimination Task

You will hear pairs of words. Sometimes the two words will be identical, and some other times they will differ slightly. Listen carefully and indicate (X) in the following sheet whether the two elements of the pair sound the SAME or DIFFERENT:

Example:

You hear “**pero – pero**”

You mark (X) the column “SAME”:

	SAME	DIFFERENT
1.	X	

You hear “**pero – perro**”

You mark (X) the column “DIFFERENT”:

	SAME	DIFFERENT
1.		X

APPENDIX E

PERCEPTION TESTS (cont.)

Training Session:

	SAME	DIFFERENT
1.		
2.		
3.		
4.		
5.		

Test

	Same	Different		Same	Different		Same	Different
1.			21.			41.		
2.			22.			42.		
3.			23.			43.		
4.			24.			44.		
5.			25.			45.		
6.			26.			46.		
7.			27.			47.		
8.			28.			48.		
9.			29.			49.		
10.			30.			50.		
11.			31.			51.		
12.			32.			52.		
13.			33.			53.		
14.			34.			54.		
15.			35.			55.		
16.			36.			56.		
17.			37.			57.		
18.			38.			58.		
19.			39.			59.		
20.			40.			60.		

Identification Task

You will hear individual words read from either one of two columns. Mark (X) the word that you think is being pronounced.

Example:

You hear “pero”
You mark (x) the word “pero” from list A

You hear “perro”
You mark (x) the word “perro” from list B

Training Session:

A _____ B

- pero perro
- pira pirra
- vara barra
- moro morro
- ara arra

	A		B		A		B
1	pero		perro	15	boro		borro
2	pera		perra	16	foro		forro
3	coral		corral	17	fiero		Fierro
4	coro		corro	18	era		erra
5	toro		torro	19	vara		barra
6	cero		cerro	20	moro		morro
7	poro		porro	21	ara		arra
8	cara		carra	22	ahora		ahorra
9	Lara		Larra	23	choro		chorro
10	mira		mirra	24	moral		morral
11	para		parra	25	Oreo		horreo
12	pira		pirra	26	soro		zorro
13	varo		barro	27	enterar		enterrar
14	encerar		encerrar	28	Moro		Morron

Notes

¹We deliberately use the term drill to emphasize the fact that drills that are meaningful, like the ones used in the intervention in this study, are fundamentally different from the mechanical drills typical of behaviorist approaches.

²For example, missing data or poor recording that made spectrographical analysis impossible.

References

- Alarcos-Llorach, E. 1986. *Fonología española*. Madrid, Gredos.
- Best, C.T. 1995. A direct realistic view of cross-language speech perception. *Speech Perception and Linguistic Experience: Issues in Cross-Language Research*, Strange, Winifred (Ed.), Timonium, MD: York Press, Inc., 1995, pp. 171-204.
- Boersma, P., & Weenik, D. 2007. Praat: doing phonetics by computer (Version 4.5.20) [Computer program]. Retrieved April 30, 2007, from <http://www.praat.org/>
- Cadierno, T. 1995. Formal instruction from a processing perspective: An investigation into the Spanish past tense. *Modern Language Journal* 79, 179-193.
- Celce-Murcia, M. 1987. Teaching pronunciation as communication. In J. Morley (Ed.), *Current perspectives on pronunciation: Practices anchored in theory*. Alexandria, VA: TESOL, pp.1-12.
- Cenoz, J., & García-Lecumberri, L. 1999. The effect of training on the discrimination of English vowels. *International Review of Applied Linguistics* 37, 261-275.
- Cheng, A. C. 2002. The effects of processing instruction on the acquisition of *ser* and *estar*. *Hispania* 85, 308-323.
- Cheng, A. C. 1995. Grammar instruction and input processing: The acquisition of Spanish *ser* and *estar*. (Doctoral dissertation, University of Illinois, 1995). *Dissertation Abstract International*, 56, 3485A-3486A.
- Collentine, J. 2002. On the acquisition of the subjunctive and authentic processing instruction: A response to Farley. *Hispania* 85, 879-888.
- Davidson, A. 1996. DAVID system software v2.0 for interactive digital television networks, compcon, p. 241, COMPCON Spring 1996-41st IEEE International Computer Conference.
- Delattre, P. 1965. Comparing the phonetic features of English, French, German and Spanish: An interim report. London, UK: George G. Harrap & Company Ltd.
- Derwing, T. M., & Munro, M. J. 2005. Second language accent and pronunciation teaching: A research-based approach. *TESOL Quarterly* 39, 379-397.
- Derwing, T. M., Munro, M. J., & Weibe, G. 1998. Evidence in favor of a broad framework for pronunciation instruction. *Language Learning* 48, 393-410.
- Derwing, T. M., & Rossiter, M. J. 2003. The effects of pronunciation instruction on the accuracy, fluency, and complexity of L2 accented speech. *Applied Language Learning* 13, 1-17.
- Elliot, A. R. 1997. On the teaching and acquisition of pronunciation within a communicative approach. *Hispania* 80, 95-108.
- Farley, A. P. 2001. The effects of processing instruction and meaning-based output instruction. *Spanish Applied Linguistics* 5, 57-94.
- Flege, J.E. 1995. Second language speech learning: Theory, findings, and problems. In W. Strange (Ed.), *Speech perception and linguistic experience: Issues in cross-language research*. Baltimore, MD, York Press, pp. 233-277.
- González-Bueno, M. 1997. The effects of formal instruction on the acquisition of Spanish stop consonants. In W.R. Glass, & A.T. Pérez-Leroux (Eds.), *Contemporary perspectives on the acquisition of Spanish* Somerville, MA,
- González-Bueno, M. 2005. Articulatory difficulties in the acquisition of Spanish /r/ in a bilingual context. *Proceedings of the 4th International Symposium on Bilingualism*, ed. James Cohen, Kara T. McAlister, Kellie Rolstad, and Jeff MacSwam, Somerville, MA: Cascadilla Press, pp. 914-934
- Hammond, R., 1999. "On the non-occurrence of the phone [r] in the Spanish sound system." In J. Gutiérrez-Reixach and F. Martínez-Gil's (eds.) *Advances in Hispanic Linguistics*. Somerville, MA: Cascadilla Press, pp. 135-151.
- Hammond, R., 2000a. "The multiple vibrant liquid in U.S. Spanish." In A. Roca's (ed.) *Research on Spanish in the U.S.* Somerville, MA: Cascadilla Press, pp. 333-347.
- Hammond, R., 2000b. "The phonetic realizations of /rr/ in Spanish; A psychoacoustic analysis." In H. Campos, E. Herburger, A. Morales-Front, and T. J. Walsh's (eds.) *Hispanic Linguistics at the Turn of the Millennium*. Somerville, MA, Cascadilla Press, pp. 80-100.
- Hernández Pina, F., 1984. *Teorías psicosociolingüísticas y su aplicación a la adquisición del español como lengua materna*. Madrid: Siglo XXI.
- Jakobson, R. 1941. *Child language, aphasia, and phonological universals*. The Hague, The Netherlands: Mouton, 1968. (Original work published 1941).
- Kendrich, H. 1997. Keep them talking! A project for improving students' L2 pronunciation. *System*, 25, 545-560.
- Kuhl, P.K., & Inverson, P. 1995. Linguistic experience and the "Perceptual Magnet Effect." *Speech Perception and Linguistic Experience: Issues in Cross-Language Research*, Strange, Winifred (Ed.), Timonium, MD: York Press, Inc., 1995, pp. 121-154.
- Lee, J. F., & VanPatten, B. 2003. *Making communicative language teaching happen*. Boston, MA: McGraw-Hill.
- Levis, J. M., & Grant, L. 2003. Integrating pronunciation into the ESL/EFL classroom. *TESOL Journal* 12, 13-19.
- MacDonald, D., Yule, G., & Powers, M. 1994. Attempts to improve L2 pronunciation: The variable effects of different types of instruction. *Language Learning* 44, pp. 75-100.
- Martínez-Celdrán, E. 1994. *Fonética*. Barcelona, Teide.
- McCall, J. 2001. The effect of foreign accent and phonetic inventory on word recognition. Unpublished Honor Thesis. University of Kansas.
- Montes Giraldo, J. J., 1971. *Acerca de la apropiación por el niño del sistema fonológico español*. *Thesaurus* 26, pp. 322-346.
- Morley, J. 1994. A multidimensional curriculum design for speech-pronunciation instruction. In J. Morley (Ed.), *Pronunciation pedagogy and theory: New views, new dimensions* Alexandria, VA, TESOL, pp. 66-91.
- Munro, M. J. 1998. The effects of noise on the intelligibility of foreign-accented speech. *Studies on Second Language Learning* 20, 139-154.
- Munro, M. J., Derwing, T. M., & Sato, K. 2006. Salient accent, covert attitudes: Consciousness-raising for pre-service second language teachers. *Prospect* 21, 67-79.
- Navarro-Tomás, T. 1990. *Manual de pronunciación española*. Madrid: CSIC.
- Núñez Cedeño, R. 1989. La /r/, único fonema vibrante del español: Datos del Caribe. *Anuario de Lingüística Hispánica* 5, 153-171.
- Quilis, A., & Hernández, C. 1990. *Lingüística española aplicada a la terapia del lenguaje*. Madrid, Gredos.
- Ruke-Dravina, V., 1965. The process of acquisition of apical /r/ and uvular /R/ in the speech of children. *Linguistics* 17, 58-68.
- Setter, J., & Jenkins, J. 2005. *Pronunciation*. *Language Teaching* 38, 1-17.
- Suter, R. W. 1976. Predictors of pronunciation accuracy in second language learning. *Language Learning* 26, 233-253.
- VanPatten, B. 1996. *Input Processing and Grammar Instruction in Second Language*

- Acquisition. Norwood, NJ, Ablex Publishing.
- VanPatten, B., & Cadierno, T. 1993. Explicit instruction and input processing. *Studies in Second Language Acquisition* 15, 225-243.
- VanPatten, B., & Oikkenon, S. 1996. Explanation vs. structured input in processing instruction. *Studies in Second Language Acquisition* 18, 495-510.
- VanPatten, B., & Sanz, C. 1995. From input to output: Processing instruction and communicative tasks. In F. Eckman, D. Highland, P. W. Lee, J. Mileham, R.R. Weber (Eds.), *Second Language Acquisition and Pedagogy* Hillsdale, NJ, Erlbaum, (pages unavailable).

Authors

MANUELA GONZALEZ-BUENO, Associate Professor, Foreign Language Education, The University of Kansas, 1122 W. Campus Rd., Lawrence, KS 66045. Specializations: Second Language Acquisition, Foreign Language Teaching Methodology, Second Language Pronunciation Teaching.

MARCELA QUINTANA-LARA, Associate Professor, TESOL, Teacher Preparation, Universidad Arturo Prat, 2120 Av. Arturo Prat, Iquique, Chile. Specializations: Second Language Acquisition, Language Teaching Methodology, TESOL, Second Language Pronunciation Teaching.

Applied Language Learning
2011, Vol. 21, Nos. 1 & 2, pp. 79 - 86

Review

Methodology and Materials Design in Language Teaching: Current Perceptions and Practices and their Implications (2003). Edited by Willy A. Renandya. Singapore: SEAMEO Regional Language Centre. Pp. 222.

Reviewed by GORDON L. JACKSON

Defense Language Institute Foreign Language Center

A very interesting and thought-provoking anthology, *Methodology and Materials Design in Language Teaching: Current Perceptions and Practices and their Implications* contains 14 papers selected from those presented at the 37th International Seminar of the SEAMEO Regional Language Centre, 22 – 24 April, 2002. The seminar sought to 1) critically examine changes in and approaches to designing instructional materials for language teaching, 2) critically examine changes in approaches to methods of language teaching, and 3) assess the implication of those changes for classroom practices. The 14 seminar papers selected for publication are organized into three sections in the anthology: (I) *Materials Design and Evaluation in Language Teaching*, (II) *Methodology and Text*, and (III) *Materials in Use in Southeast Asia*.

The five papers in Section I, *Materials Design and Evaluation in Language Teaching*, deal with issues that materials designers need to consider when developing language teaching materials. In the first paper, “Authenticity in the Design and Development of Materials,” Richard Day braves controversy, taking issue with devotion to authenticity in language-learning materials, activities, tasks, and exercises, referring to it as a “cult,” and, because of problems associated with the use of authentic materials and a lack of empirical evidence supporting their use, he recommends instead “appropriateness,” by which he means that it is appropriate to simplify authentic materials to make them more accessible to learners: “learners have to use materials appropriate for their ability” (p. 6) because “authentic texts are generally much too difficult for the majority of language learners” (p.6). He adds that “we should not confuse the goal—to achieve a level of fluency that allows learners to use and make use of authentic texts—with the process of getting there” (p.6).

In the second paper, “Humanising the Coursebook,” Brian Tomlinson complains about textbooks that students find irrelevant because they do not relate to their lives, and makes a strong case for using books that have been “written to inform, stimulate or entertain rather than to teach language” (p. 13). His favorite genre is the narrative because “narrative can provide a rich and meaningful exposure to language in use and can stimulate the use of language in response (both internally in inner speech and externally in discussion)” (p. 14). He concludes that “The easiest way to make a coursebook humanistic is to ensure that in most activities the learners are asked about their own views, attitudes, feelings and opinions, that they are helped to think of their own examples and connections and that they are made to feel as though they are equal interactants with the coursebook writers and with the authors of texts which the coursebook includes” (p. 24).

The third paper, “Materials for New Technologies: Learning from Research and Practice,” by Denise Murray, is a very practical report on insights from the literature and teaching experience on factors that need to be kept in view when selecting or designing materials for computer-assisted instruction. Among those factors are the teacher’s and students’ level of expertise in the use of technology, the language in which instructions are given in the learning materials, the potential for student-centered instruction, the

provision of feedback to the students, the availability and capabilities of equipment, the availability of technical support personnel, time needed by the teacher for lesson planning and responding on line, and integrating online and face-to-face instruction. The author concludes that “as we write, adopt, and adapt new technologies to our language classrooms, we need to remember that learners do not learn from materials, whether print or electronic; rather they learn through thinking and using language to perform certain tasks” (p. 40).

The fourth paper in Section I is Beverly Derewianka’s “Designing an On-Line Reference Grammar for Primary English Teachers.” This intriguing paper deals with the TeleNex project, which produced a searchable, easy-to-understand, and visually appealing reference grammar for teachers of English at the primary level in Hong Kong, many of whom had not had extensive training in language teaching. From the author’s description, the grammar appears to be a full-featured, technological tour de force that others might wish to emulate. A sampler was said to be available at <http://www.telenex.hku.hk/lelec/pmain/opening.htm>, but the server could not be located.

In the last chapter of Section I, “What do Textbook Evaluation Schemes Tell Us? A Study of the Textbook Evaluation Schemes of Three Decades,” A. Mehdi Riazi provides brief descriptions of major textbook-evaluation checklists from the 1970s, 80s, and 90s; finds, not surprisingly, that the checklists “reflect the general framework, approach, and conceptualization of language learning and teaching of the time” (p. 62); and concludes that “the evaluation schemes of each decade represent the trend of the time to a large extent” (p. 62). The utility of the paper is limited by the fact that the descriptions of the checklists are brief, and a copy of the checklists themselves is not provided. However, references are given for the reader who is interested in that level of detail.

Section II, *Methodology and Text*, begins with Erwin Tschirner’s “Skill, Text, and Register: Rethinking Grammar in the IT Age.” Perhaps the most valuable part of this paper is the opening paragraph in which the author states (p. 70):

The advent of powerful microcomputers and fast internet connections allows us to rethink the way foreign languages are taught in the classroom. Digital audio and video in particular allow us to bridge the gap between foreign language instruction at home and second language instruction in countries where the target language is spoken. But they do more. The digitization of sound and moving pictures finally allows us to work with oral language the way we have been able to work with written language all along: to highlight, to cut up, to replay words and sentences easily and quickly, to analyse, to categorize, and to memorize efficiently and comprehensively.¹ The advent of digital video and audio allows us to double our efforts to teach language for functional proficiency, including oral proficiency, in the classroom, and it allows us to reconsider the role grammatical knowledge plays in the development of language competence and language performance.

In the paper the author takes issue with the notion of a single, abstract grammar underlying all language skills, and takes the position that “it is equally plausible to assume that different skills rest on different competencies even though it seems clear that the grammatical competencies associated with each skill must, at least partially, overlap

each other” (p. 72). He discusses different types of grammar (e.g., primary, literacy, and linguistic), but he does not discriminate clearly between them, and the discussion is spread out in such a way in the paper that the reader will have difficulty understanding the author’s intended meaning until late in the paper. Even then, the reader may become confused because the author adds four grammars, one for each language skill, and three of the four seem to be the same as the primary, literacy, and linguistic grammars. Examples of the content of the grammars would have been very helpful, as would a definition of “grammar.”

In addition to describing different kinds of grammar, the author discusses the development of grammatical competence. Readers may find controversial his position that “the ability to use a word or grammatical form productively does not emerge from exposure to comprehensible input but rather is acquired when the item in question is used productively, i.e., while speaking, while trying to communicate” (p. 79). This seems to ignore the modeling, comprehensible-input answer to the question, how does the learner know what to produce?

In the second paper in Section II, “Developing Academic Texts to Enhance Inference Use,” Ronald Brown points out that students’ ability to comprehend what they read and to draw appropriate inferences depends on three factors; prior topical knowledge, purpose for reading, and knowledge of text structure or genre. According to Brown,

an effective procedure for guiding students in making inferences from narratives is to have them (1) describe what they know about the situation in the story, (2) identify similar situations from their personal experiences or prior knowledge, (3) decide if the situations are similar enough to warrant an inference about the story, and (5) [sic] draw inferences To help students understand the structure of expository texts, the L2 teacher should examine a reading selection before assigning it, decide what text patterns are used, determine essential vocabulary items that are probably unknown, identify the purpose for reading, and then explain to the students the text structure employed. (p. 90f)

Brown makes the interesting assertion that as students begin to read independently it is important that they experience a variety of listening [*Meant reading ?*] activities, and he recommends as a procedure that teachers can use in teaching reading comprehension, the Language Experience Approach, “during which students and the teacher collaboratively write a narrative based on a common experience” (p. 101). He also recommends the Directed Reading-Thinking Activity (p. 102), Cooperative Learning (paired activities) (p. 102f), K-W-L² (which “tries to activate background knowledge and show students how text can be related to what they know and what they want to learn”) (p. 104f), and the Discussion Continuum, which “encourages students to make connections of personal experiences and backgrounds to the ideas, concepts, and issues presented in a text” and fosters the expression of opposing views (p. 105).

In this very practice-oriented paper Brown says (p. 88) that most inferences are unconscious and automatic, and the challenge for teachers is to teach students to do so consciously and actively while they read. He adds that “after students have been provided guided practice in applying comprehension strategies, teacher questions can then help

them focus on making inferences” (p.92). Included in the paper is a very practical section, Teresa, Here is missing text
 “Reading strategies that Help Students Understand Text and Draw Inferences.”

In the third paper in Section II, “Helping Learners to Become Critical: How Coursebooks Can Help,” Amos Paran makes a simple yet strong case for critical reading by 1) beginning his paper with a published quotation that wonderfully illustrates the possibility of overlooking errors in content, and 2) by saying that “our basic instinct is to trust the written word, and thereby lies its power. But the written word is often misleading or wrong, and if it is wrong where a major publishing house is concerned, how much more so in all the other sources of our reading, or when so much of the reading that our students do is on the WWW, where there is no gatekeeping and no quality control . . .” (p. 109f).

Paran goes on to define elements of critical thinking, to “examine the ways in which these areas have been addressed – or rather not addressed – in EFL,” and to “propose ways in which components of thinking may be introduced into classrooms in general, with a particular focus on the type of exercise that can be incorporated into EFL coursebooks” (p. 110).

Paran asserts that there is little reflection on the meaning of texts in English Language Teaching (ELT) and hypothesizes that “what seems to be happening is that in spite of paying lip service to a preoccupation with meaning, within general ELT more often than not the text is there not for its meaning, but for its language learning – or rather language teaching – potential” (p. 113). This use of the “text as linguistic object” (TALO) leads the author into a discussion of three other possible uses of texts: as a source of information, reading strategy instruction, and thinking. For the author, only the last of these encourages the learner to question or evaluate the text.

Paran suggests a number of activities that require learners to think. Among them are: distinguishing fact from opinion, distinguishing supported from unsupported opinions, finding factual errors in a text, corroborating or disproving information in a text, giving an evaluative reaction to what one reads, identifying conflicting information or opinions within or between texts, and providing reasons for one’s response, view or attitude.

The first paper in Section III (*Materials in Use in Southeast Asia*) is Andrew Gonzalez’ “ESL Materials for Philippine Use in Primary and Secondary Schools: Across Four Paradigmatic Generations.” By “paradigmatic generations” Gonzalez refers to time periods during which a particular paradigm or model of language teaching and learning prevailed and influenced the types of ESL materials produced and prescribed for use in the public schools at the primary and secondary levels. The first three of the four time periods discussed are the Audiolingual period, the period of Cognitive Language Teaching, and the period of Communicative Language Teaching. The fourth generation of methods and materials in use in the Philippine educational system does not have a specific name, “but represents the convergence and realisation of the earlier intellectual movements in English language teaching in the country” (p. 127).

Looking back over the four generations of methods and materials, the author writes that

. . . one is struck by the finding that only in the first generation, the period of American Structuralist model, was there an integrated model of

psychological language learning theory, a dominant linguistic model, a derived methodology, procedures and techniques as well as sets of materials for many languages. The cognitive heritage of Chomsky left no such integrated paradigm (and most likely was not intended by its theorists to lead to anything practical in language teaching). In communicative language teaching, the British Council group of linguists left both a theory (Littlewood, 1981;³ Widdowson, 1978⁴) and method embodied in several writings (Wilkins, 1972, 1974, 1976⁵) and sets of materials by various authors. In the fourth generation, while there has not been an integration and a psycholinguistic theoretical backing (except for a call for higher order cognitive processes), there is now a consistent model, theory and methodology and research on ESP plus sundry techniques and procedures (Flowerdew & Peacock, 2001⁶). (p. 133)

Gonzalez laments in conclusion (p. 133f.) that in spite of studies of the effects and effectiveness of methods and procedures, “we do not really know for sure what works and what does not work, given the many variables present for any kind of success in language learning. Above all, we do not really know why some procedures reach some modicum of success and some do not. Thus there is need for further research at present. We must explore a terra incognita waiting for the patient investigation of the researcher armed not only with an experience of classroom teaching but with a theoretical framework for his pedagogical grammar, and a psychological theory of language learning which lends itself to some form of verifiability.”

In the second paper in Section III, “Mandated English Teaching Materials and their Implications to Teaching and Learning: The Case of Indonesia,” Iwan Jazadi “examines the government textbooks that are externally mandated teaching materials for use at junior and senior high schools throughout Indonesia and considers whether they are “good” materials or not” (p. 143). He defines a good textbook as “one that is designed based on learner-centred principles, which focus on learners and on learning, and which give learners a role in classroom decision making processes. The aim is to optimise all students’ motivation, learning and achievement (Reilly, 2000:2)” (p. 143). Jazadi weighs the materials in the learner-centered balance and finds them lacking.

The third paper in Section III is “Where are the ELT Textbooks?” In it Shani Chandran discusses the use of English language textbooks in Malaysian schools and reports the findings of an interview survey conducted among 60 English teachers in a sample of more than 30 randomly selected urban schools in Malaysia. The interviews were designed to elicit from the teachers their attitudes, feelings, beliefs, values, and perceptions in regard to the main English language textbooks prescribed by the Malaysian Ministry of Education.

Readers who are puzzled by the title of Chandran’s paper will find their curiosity satisfied upon reading that most of the teachers surveyed claimed that they used commercially available workbooks instead of the prescribed textbooks. In comparison with the prescribed textbooks, the workbooks, which were published on a regular basis, were found by the teachers to be more up to date, attractively illustrated in color, more suitably graded to suit the various levels of learners in different parts of Malaysia, superior in the extent of their description of language structures and in the provision of

accompanying activities, and better at acquainting learners with examination format and item types.

Chandran's bottom-line assessment of the value of the prescribed textbooks is that "it is undeniable that a National Curriculum, as in the Malaysian case, may not be able to cater to the needs of all learners and teachers. However, with limited time and increased teaching loads, English Language teachers in the Malaysian schools should find these prescribed textbooks to be of some help" (p. 163).

A key issue discussed in Chandran's paper is the role of the textbook in the setting of curricular objectives in practice, and she eloquently summarizes another author's position that "textbooks are good servants but poor masters, and that teachers should use the textbook to suit the needs of the learners and the lesson rather than to let the textbook decide on the needs of the learners and the lesson" (p. 162).

In the conclusion of her paper Chandran returns to the question of textbook usage by teachers and expresses her concern that workbooks, which are intended to supplement a primary text, "have taken on centre stage" (p. 168). She adds that "whether or not this over-reliance on workbooks has any serious impacts on learners' language development merits a careful study" (p. 168).

The fourth paper in Section III, "Localising ELT Materials in Vietnam: A Case Study," should be of special interest to supervisors and teacher trainers. In the paper Bao Dat reports on an action research study of how ELT materials could be adapted and tailored to meet the needs of local teachers and students in Vietnam.

The study was prompted by "the need to solve a real problem in many classrooms where students are verbally unresponsive and unenthusiastic during classroom discussion" (p. 172). The study was conducted in a class of 44 learners of intermediate English. To obtain input from the students, the author administered a survey that posed the following questions:

1. In your personal experience as a learner, what factors often take away your interest in the lesson and intimidate you from participating in classroom discussions?
2. Would you like to make suggestions so that the teacher can help you feel good and participate better?"

Based on the students' survey responses, the author selected a regular lesson that was viewed as being difficult to teach well, and, in consultation with the teacher who would teach the lesson, simplified and adapted it to make it more suitable for the target students in content and level of language. In spite of prior planning, when the innovative lesson was given, some of the initial activities unfortunately illustrated the difficulty in getting teachers to teach in ways to which they are not accustomed, and the author was reminded of the following observation by Kenny and Savage:⁸

All human systems tend to seek stability and hence preserve themselves from undesirable or unnecessary change. Except in dire situations where it is a choice between changing and perishing, it is much easier to stay the same.

Fortunately for all involved, the lesson ended successfully with much student involvement in discussion.

In the next paper, "Developing an Oral Communication Skills Training Package: Process and Product; Problems and Solutions," Gloria Poedjosoedarmo describes the

development of a teacher-training package for use in Southeast Asia, a package that was designed "to improve the proficiency of English language teachers in ASEAN⁹ countries where English is a foreign language¹⁰ and, at the same time, to provide them with the methodology needed to teach oral communication skills" (p. 192). The stages in the development process included conducting a needs analysis in each of the ten ASEAN nations, producing the package, and piloting and revising it. The project took three years and was completed in December, 2001.

Included in the paper is an easy-to-read and informative summary of the responses to the needs analysis, as well as a detailed description of the content of the package of training materials that were developed on the basis of the analysis. Readers involved in developing materials may find useful the author's account of problems the project team encountered in the production process (e.g., selection of a language model for texts and recordings) and how they dealt with them. In discussing end-of-project challenges, the author makes the down-to-earth observation that "materials developers should be aware that when changes occur towards the end of a project, it may not be possible to implement the pedagogically wisest solution because of time and budget constraints" (p. 205).

In the last paper in Section III, "Collaborative Materials Design for Communication Skills Training in an Engineering Curriculum," Carmel Heah and Li Shu Yun describe the collaborative development of *Essential Communication Strategies for Engineering Students*, an in-house textbook that integrated communication skills training with engineering training. The training materials were intended for use in a second-year communication skills course in the School of Civil and Environmental Engineering at Nanyang Technological University. The course had as one of its objectives "the development of language competence . . . to prepare students for effective participation in the professional community of civil and environmental engineers" (p. 208). A second objective was "to enhance the marketability of the engineering graduates through providing opportunities in communication skills training for developing essential attributes in an engineer such as independence, initiative, confidence, as well as skills in team-building and problem-solving" (p. 209). The materials developed to meet these objectives were very practical, because, according to the authors, "the syllabus is task-based and syllabus items reflect the communication tasks that students will have to perform in the workplace" (p. 215).

Major benefits of the course-development project were as follows:

"1. Students reported increased interest in communication skills training as the workplace orientation of tasks and projects enabled them to see the importance and relevance of communication skills in their profession.

2. Students generally found the tasks and activities interesting and challenging. They welcomed the opportunities given to work independently and in teams.

3. Language specialists were able to drop their traditional role as "disseminator of knowledge"—a role they are uncomfortable about as they are unfamiliar with the content area. Instead, they are able to develop their skills as facilitators of learning" (pp. 216-217).

Included in the paper is a useful list of lessons that the language specialists learned from working with engineering experts in designing the course and in developing the materials. With its exposition of the principles of materials design and of the design model that were followed by the team of language and subject specialists, the paper should be of significant interest to materials developers in similar situations.

All in all, *Methodology and Materials Design* is a very interesting and informative book in content, and its many papers are well researched. In form, unfortunately, the reader will all too frequently encounter glitches (e.g., misspellings, missing references) which reflect insufficient attention to editing, so many that this reviewer would recommend preparation of an errata list.

Notes

¹ Later in the paper (p. 83) the author observes that “before the advent of computer-controlled video, spoken language, especially for beginning learners, was simply too fast, too rich, and too complex for learners to notice more than some prominent syllables or words.”

² The author describes K-W-L as “a three-step procedure: (what one **knows**, (2) what one **wants** to learn, and (3) what one has **learned**.” In that procedure “students generate their own questions and attempt to infer author’s purpose” (p. 104).

³ *Communicative language teaching: an introduction*. New York: Cambridge University Press.

⁴ *Teaching Language as Communication*. Oxford: Oxford University Press.

⁵ *Linguistics in language teaching*. Cambridge: MIT Press; *Second language learning and teaching*. London: Edward Arnold; and *Notional syllabuses*. Oxford: Oxford University Press.

⁶ *Research perspectives on English for Academic Purposes*. New York: Cambridge University Press.

⁷ Cunningsworth, A. (1984). *Evaluating and selecting EFL teaching materials*. London: Heinemann Educational Books.

⁸ Kenny, B, & Savage, W. (Eds.). (1997). *Language and development: Teachers in a changing world*. London and New York: Longman, pp. 291-292.

⁹ Association of Southeast Asian Nations

¹⁰ Cambodia, Indonesia, Laos, Thailand, and Vietnam.

Applied Language Learning
2011, Vol. 21, Nos. 1 & 2, pp. 87 - 88

Review

Language Learning and Study Abroad: A Critical Reading of Research.
(2009). By C. Kinginger. Palgrave MacMillan. Pp 248.

Reviewed by Ashlie Henery
Carnegie Mellon University

Many personal anecdotes from students who have spent time in a foreign country attest to the influential and potentially life-changing experience that can be found while studying abroad. In addition, many language educators, parents and students support the assumption that study abroad is the superior context for language learning. Truly this context of learning is a relevant piece of many students' academic careers. In fact, the 2010 Open Doors Report says that approximately 260,000 American students studied abroad in during the 2008/2009 academic year (Institute for International Education, 2010). It is against this background that *Language Learning and Study Abroad* is set. This timely book critically synthesizes study abroad research in order to describe the history and current state of this field of research.

The first of six chapters begins by giving some background to the field of study abroad research. The author clearly defines the term of "study abroad" and explains the different perceptions of this concept on a global scale. The author, Celeste Kinginger, gives detailed profiles of the policies and practices associated with study abroad in three major regions of the world: the United States, the European Union, and Japan. She then notes that there is a strong bias for the American perception of study abroad and an emphasis on American students' experiences in the research literature. This is due to the prominence of English-language publications in the field of SLA as well as the strong emphasis on the study abroad context by American foreign language educators and applied linguists, as compared to those from more multilingual regions of the globe. Despite this bias, Kinginger sets out to bring together past and current literature in the field and to examine the variety of approaches used in order to describe what exactly is known about the relationship between language learning and study abroad.

Following this thorough introduction, the second chapter examines how researchers have measured language acquisition within the study abroad context of learning. This chapter focuses on researchers' attempts to generalize the learning outcomes of students who study abroad. The chapter is organized around the holistic constructs, or overall outcomes, that researchers have used to define language acquisition: general proficiency, oral proficiency, listening comprehension, and literacy-related skills of reading and writing. This order of analysis more or less follows historical research trends. Although the studies reviewed in this chapter reveal an overall picture that is generally positive, the relationship between language gain and study abroad has not yet been conclusively proven at this point. This type of research showed great variation in learning outcomes and raised many additional questions regarding the complexity of this context of learning.

The questions raised from the holistic approaches for measuring language learning while abroad lead the reader to the next chapter, which reviews literature examining more discrete areas of language proficiency. Under the umbrella of communicative competence, which is defined as "the functional value of language ability" (p.70), the third chapter analyzes research in the areas of linguistic competence, speech acts, discourse competence, sociolinguistic competence and strategic competence. The studies reviewed continue to be analyzed in terms of their methodology, which spans across a wide variety of second language acquisition theories and approaches and their results. Although it appears that study abroad has a positive impact on communicative competence overall, the studies highlighted in this chapter point towards the need for researchers to better understand the

qualities of the study abroad experience. Perhaps an exploration of how students spend their time, how they are received, and to what extent they engage in using the target language would further explain their language development.

The fourth chapter tackles the above-mentioned challenge by synthesizing research concerning the communicative settings that are available to study abroad students. Kinginger presents many studies that have examined the elements of formal instruction, homestay, service encounters and informal contacts within the study abroad context. These studies, of which the majority are qualitative in nature, begin to explore the complexity of this context of language learning and illustrate how varied and unique each learner's experience may be. In fact, Kinginger summarizes the findings with this statement: "Taken together, investigations of communicative settings in study abroad present a rich and detailed portrait of learners' varied experiences from which there emerge few generalizations and no precepts that can be applied in good conscience to every student" (p. 151). This dilemma required researchers to examine student experiences in an even deeper fashion.

The final synthesis chapter addresses more recent research questions that pertain to language socialization and identity. As researchers began looking into the qualities of students' experiences while abroad, these topics became increasingly relevant to the question of what causes language learning in study abroad. Learners are human agents who bring their own identities, past history and future expectations with them when they study abroad. This area of research leaves behind outcomes-based research designs and adopts a descriptive account of the experience, most often from the learner's perspective. Overall, these studies tell us much about the variety of experiences that students encounter and reveal that this variation may not be based solely on traditional individual differences. Rather, Kinginger highlights the role that learners' dispositions and the interactive settings that are available and utilized by learners may play in the language learning process while abroad.

The strengths of this book are evident in its concluding chapter. The conclusion provides a summarizing, big-picture view of the current field of study abroad research, suggestions for future areas of research, and implications for programs, policy and pedagogy. One of the greatest strengths of this book is the critical and detailed picture that emerges about the changing landscape of past and current study abroad research. Despite the wide variety of methodologies and topics covered by the reviewed works, Kinginger succeeds in stitching together each study as a piece of a quilt that relates and differs from the other pieces. It is through these common threads that the author is able to incorporate such a vast amount of research into one single work.

The limitations of this book are also related to its strengths. The sheer number of relatively small-scale studies, which adopt such a wide range of methodologies and theoretical frameworks, can be difficult to classify and compare. However, Kinginger is aware of this challenge. In addition, though this book may be informative for a wide audience of researchers, educators and students, there are certain limitations in the research available today that hinder direct, generalized applications to practice. Those limitations include the wide gap between empirical findings and the more recent qualitative descriptions.

In summary, *Language Learning and Study Abroad* is a significant contribution to the field of second language acquisition research. It provides a thorough and contextualized description of the field of study abroad research. Limited only by the constraints of a complex body of literature, the author works hard to critically synthesize what has been studied since and what is currently known about language learning in a study abroad context. What results is a detailed overview that can be informative to many audiences and also reveals gaps in the literature, which may point to the future trends of research in the field.

References

Institute for International Education. (2010). Open doors 2010 fast facts.

General Information**ALL Index****Authors and Articles**

- Abraham, Roberta G. (1996). *Introduction: Validity Issues in the Assessment of L2 Learner Strategies*. 7(1&2), p. 1.
- Abraham, Roberta G. (1996). *Using Task Products to Assess Second Language Learning Processes*. 7(1 & 2), p. 61.
- Aldrich, Ray Lane. (2000). *Army Language Training in the 21st Century*. 11(2), p. 363.
- Allen, Linda Quinn. (2000). *Nonverbal Accommodations in Foreign Language Teacher Talk*. 11(1), p. 155.
- Ariew, Robert. (1991). *Effective Strategies for Implementing Language Training Technologies*. 2(2), p. 31.
- Bae, Gyseon & Kim, Eunju. (2008). *What Causes Reliance on English? Challenges and Instructional Suggestions in a Drive for Using a Target Language Only*. 18(1 & 2), p. 63.
- Bar-Lev, Zev. (1993). *Sheltered Initiation Language Learning*. 4(1 & 2), p. 95.
- Bohn, Micheal T. (2004). *Japanese Classroom Behavior: A Micro-Analysis of Self-Reports Versus Classroom Observations, with Implications for Language Teachers*. 14(1), p. 1.
- Byon, Andrew Sangpil. (2004). *Learning Linguistic Politeness*. 14(1), p. 37.
- Byon, Andrew Sangpil. (2007). *Process-Driven Culture Learning in American KFL Classrooms*. 17(1&2), p. 73.
- Bush, Michael D. (1991). *Hardware for Language Training: Coping with Confusion*. 2(2), p. 77.
- Butler, Stephen L. (2000). *It's Not Training, It's Education*. 11(2), p. 357.
- Byrnes, Heidi. (1989). *Features of Pragmatic and Sociolinguistic Competence in the Oral Proficiency Interview*. 1(1), p. 1.
- Cadierno, Teresa. (1997). *The Effects of Lexical and Grammatical Cues on Processing Past Temporal References in Second Language Input*. 8(1), p. 1.
- Callahan, Philip, & Shaver, Peter. (2001). *Formative Considerations Using Integrative CALL*. 12(2), p. 147.
- Campbell, Christine. (2006). *Action Research as a Professional Development Tool for Teachers and Administrators*. 16(1), p.75.
- Carrell, Patricia L. (2004). *The Effects of Notetaking, Lecture length, and Topic on a Computer-Based Test of ESL Listening Comprehension*. 14(1). p. 83.
- Chan, Alice Yin Wa. (2005). *Tactics Employed and Problems Encountered by University English Majors in Hong Kong in Using a Dictionary*. 15(1 & 2), p. 1.
- Chapelle, Carol A. (1996). *Validity Issues in a Computer-Assisted Strategy Assessment*. 7(1 & 2), p. 47.
- Cheng, An Chung. (2006) *The Effects of Formal Instruction and Study Abroad on Improving Proficiency: The Case of the Spanish Subjunctive*. 16(1), p.17.
- Child, James. (1993). *Proficiency and Performance in Language Testing*. 4(1 & 2), p. 19.
- Child, James R. (1998). *Language Aptitude Testing: Learners and Applications*. 9(1 & 2), p. 1.
- Cho, Kyung-Sook. (1997). *1998 Free Voluntary Reading as a Predictor of TOEFL Scores*. 8(1), p. 111.
- Clark, John L.D. (1991). *Measurement and Research Implications of Spolsky's Conditions for Second Language Learning*. 2(1), p. 71.
- Clifford, Ray T. (1993). *Proficiency and Performance in Language Testing*. 4(1 & 2), p. 19.
- Cohen, Andrew D. (1992). *Language Learning Strategies: Crucial Issues of Concept and Definition*. 3(1 & 2), p. 1.

- Cohen, Andrew D. (1996). *Verbal Reports as a Source of Insights into Second Language Learner Strategies*. 7(1 & 2), p. 5.
- Cohen, Andrew D. (2007). *Being a Strategic Language Learner in CALL*. 17(1 & 2), p. 57.
- Constantino, Rebecca. (1997). *Free Voluntary Reading as a Predictor of TOEFL Scores*. 8(1), p. 111.
- Daloglu, Aysegul. (2007). *Teacher-Student Partnership in Evaluating and Revising a Multidisciplinary Sustained-Content English Language Course*. 17(1&2), p. 15.
- Davis, Lynne. (1998). *Essay Scores as Instruments for Placement and Advancement in an Intensive English Program*. 9(1 & 2), p. 107.
- Derwing, Tracey M. (1997). *Pronunciation Instruction for "Fossilized" Learners: Can It Help?* 8(2), p. 217.
- Derwing, Tracey M & Rossiter, Marian J. (2003). *The Effects of Pronunciation Instruction on the Accuracy, Fluency, and Complexity of L2 Accented Speech*. 13(1), p. 1.
- DeSantis, Paulina. (2008). *Text Enhancement and the Acquisition of English Verbal Inflection -s by L1 Haitian Creole Speakers*. 18(1 & 2). p. 27.
- Douglas, Dan. (1989). *Testing Listening Comprehension*. 1(1), p. 53.
- Dow, Kathleen A. (2006). *Linguists: The Hidden Strength of U.S. Intelligence*. 16(1), p.1.
- Dunkel, Patricia A. (1992). *The Utility of Objective (Computer) Measures of the Fluency of Speakers of English as a Second Language*. 3(1 & 2), p. 65.
- Dunkel, Patricia A. (2004). *The Effects of Notetaking, Lecture length, and Topic on a Computer-Based Test of ESL Listening Comprehension*. 14(1). p. 83.
- Dupuy, Beatrice. (1993). *Incidental Vocabulary Acquisition in French as a Foreign Language*. 4(1 & 2), p. 55.
- Dupuy, Beatrice. (1997). *Voices from the Classroom: Intermediate-Level French Students Favor Extensive Reading over Grammar and Give Their Reasons*. 8(2), p. 285.
- Dutertre, Ayça. (2000). *A Teacher's Investigation of Her Own Teaching*. 11(1), p. 99.
- Ehrman, Madeline. (1998). *The Modern Language Aptitude Test for Predicting Learning Success and Advising Students*. 9(1 & 2), p. 31.
- Eisenstein Ebsworth, Miriam. (1997). *What Researchers Say and Practitioners Do: Perspectives on Conscious Grammar Instruction in the ESL Classroom*. 8(2), p. 237.
- Ellis, Rod. (1994). *Factors in the Incidental Acquisition of Second Language Vocabulary from Oral Input: A Review Essay*. 5(1), p. 1.
- Ewald, Jennifer. (2006). *Students' Evaluations of Dialogue Journals: Perspectives on Classroom Themes*. 16(1), p.37.
- Feyten, Carine M. (1999). *Consciousness Raising and Strategy Use*. 10(1 & 2), p. 15.
- Flaitz, Jeffra J. (1999). *Consciousness Raising and Strategy Use*. 10(1 & 2), p.15.
- Ganschow, Leonore. (1992). *Factors Relating to Learning a Foreign Language among High- and Low-Risk High School Students with Learning Disabilities*. 3(1 & 2), p. 37.
- Gardner, Robert C. (1991). *Second-Language Learning in Adults: Correlates of Proficiency*. 2(1), p. 1.
- Garrett, Nina. (1989). *The Role of Grammar in the Development of Communicative Ability*. 1(1), p. 15.
- Garrett, Nina. (1991). *Language Pedagogy and Effective Technology Use*. 2(2), p. 1.
- Glass, William R. (1997). *The Effects of Lexical and Grammatical Cues on Processing Past Temporal References in Second Language Input*. 8(1), p. 1.
- Gonzalez-Bueno, Manuela. (2001). *Pronunciation Teaching Component in SL/FL Education Programs: Training Teachers to Teach Pronunciation*. 12(2), p. 133.
- Granschow, Leonore. (1998). *Factors in the Prediction of Achievement and Proficiency in a Foreign Language*. 9(1 & 2), p. 71.
- Han, Hyunjoo. (2007). *Issues of Validity of SAT Subject Test: Korean with Listening*. 17(1&2), p.33.
- Han, Youngju. (2000). *Grammaticality Judgment Tests: How Reliable and Valid Are They?* 11(1), p.177.
- Hayakawa, Harumi & Yoshinori Sasaki. (2003). *Does a Quiz Facilitate or Spoil Language Learning? Instructional Effects of Lesson Review Quizzes*. 13(1), p. 33.
- Hedgcock, John. (2000). *Overt and Covert Prestige in the French Language Classroom: When Is It Good to Sound Bad*. 11(1), p. 75.
- Hedgcock, John. (2006). *Sound Effects: Social Pressure and Identity Negotiation in the Spanish Language Classroom*. 16(2), p. 13.
- Hernández, Todd A. (2008). *Integrative Motivation as a Predictor of Achievement in the Foreign Language Classroom*. 18(1 & 2). p. 1.
- Hinkel, Eli. (1994). *Pragmatics of Interaction: Expressing Thanks in a Second Language*. 5(1), p. 73.
- Hinkel, Eli. (2001). *Matters of Cohesion in L2 Academic Texts*. 12(2), p. 111.
- Hinkel, Eli. (2005). *Hedging, Inflating, and Persuading in L2 Academic Writing*. 15(1 & 2), p. 29.
- Hodges, Rosemary. (1995). *Examining the Value of Conversation Partner Programs*. 6(1 & 2), p. 1.
- Hokanson, Sonja. (2000). *Foreign Language Immersion Homestays: Maximizing the Accommodation of Cognitive Styles*. 11(2), p. 239.
- Holznagel, Donald C. (1991). *Managing Innovation and Change for Instructional Technology*. 2(2), p. 45.
- Houston, Tony. (2006) *Communication Strategies in the Foreign Language Classroom*. 16(2), p. 65.
- Hughes Wilhelm, Kim & Rivers, Marilyn. (2001). *An Audience Approach to EAP Writing Assessment: Learners, Teachers, Outsiders*. 12(2), p. 67.
- Hussein, Anwar S. (1995). *Sociolinguistic Patterns of Arabic Native Speakers: Implications for Teaching Arabic as a Foreign Language*. 6(1 & 2), p. 65.
- Izumi, Shinichi. (2000). *Implicit Negative Feedback in Adults NS-NNS Conversation: Its Availability, Utility, and the Discourse Structure of the Information-Gap Task*. 11(2), p. 289.
- Javorsky, James. (1992). *Factors Relating to Learning a Foreign Language among High- and Low-Risk High School Students with Learning Disabilities*. 3(1 & 2), p. 37.
- Javorsky, James. (1998). *Factors in the Prediction of Achievement and Proficiency in a Foreign Language*. 9(1 & 2), p. 71.
- Johnson, Adm. Jay L. (2000). *Language Training and Naval Operations from the Sea*. 11(1), p. 29.
- Johnson, Ruth. (1997). *A Link Between Reading Proficiency and Native-Like Use of Pausing in Speaking*. 8(1), p. 25.
- Johnson, Ruth. (1998). *Essay Scores as Instruments for Placement and Advancement in an Intensive English Program*. 9(1 & 2), p. 107.
- Johnson, Yuki. (1997). *Proficiency Guidelines and Language Curriculum: Making ACTFL Proficiency Guidelines Effective in Furthering Japanese Language Proficiency*. 8(2). p. 261.
- Kaplan, Robert B. (2001). *Language Training and Language Policy* 12(1) p. 81
- Kennedy, Lt. Gen. Claudia J. (2000). *Meeting the Army's Language Needs*. 11(1), p. 9.
- Kimbrough, Jeania. (1995). *Examining the Value of Conversation Partner Programs*. 6(1 & 2), p. 1.
- Kitajima, Ruy. (2001). *Japanese Benefactive Auxiliary Verbs: The Relationship Between Noticing and Use*. 12(1), p. 55.
- Krashen, Stephen D. (1993). *Incidental Vocabulary Acquisition in French as a Foreign Language*. 4(1 & 2), p. 55.

- Krashen, Stephen D. (1997). *Free Voluntary Reading as a Predictor of TOEFL Scores*. 8(1), p. 111.
- Kumaravadivelu, B. (1994). *Intake Factors and Intake Processes in Adult Language Learning*. 5(1), p. 33.
- LaRocca, Michela A. (1999). *Consciousness Raising and Strategy Use*. 10(1 & 2), p. 15.
- Leaver, Betty Lou. (2000). *The World From the Perspective of a Peripatetic Pedagogue*. 11(1), p. 205.
- Lee, James F. (1997). *The Effects of Lexical and Grammatical Cues on Processing Past Temporal References in Second Language Input*. 8(1), p. 1.
- Lee, Saekyun H. (2007). *Issues of Validity of SAT Subject Test: Korean with Listening*. 17(1&2), p.33.
- Lee, Sy-Ying. (1997). *Free Voluntary Reading as a Predictor of TOEFL Scores*. 8(1), p. 111.
- Lefkowitz, Natalie. (2000). *Overt and Covert Prestige in the French Language Classroom: When Is It Good to Sound Bad*. 11(1), p. 75.
- Lefkowitz, Natalie. (2006). *Sound Effects: Social Pressure and Identity Negotiation in the Spanish Language Classroom*. 16(2), p. 13.
- Leow, Ronald P. (1997). *The Effects of Input Enhancement and Text Length on Adult L2 Readers' Comprehension and Intake in Second Language Acquisition*. 8(2), p. 151.
- LoCastro, Virginia. (1997). *Pedagogical Intervention and Pragmatic Competence Development*. 8(1), p. 75.
- Lord, Gillian. (2007). *The Role of the Lexicon in Learning Second Language Stress Patterns*. 17(1&2), p. 1.
- Lowe, Jr., Pardee. (1993). *Proficiency and Performance in Language Testing*. 4(1 & 2), p. 19.
- Lowe, Jr., Pardee. (1998). *Zero-Based Language Aptitude Test Design: Where's the Focus for the Test?* 9(1 & 2), p. 11.
- Lunberry, Clark. (1994). *Deviant English and the Para-Poetic*. 5(1), p. 93.
- Martinez-Flor, Alicia. (2006). *A Comprehensive Pedagogical Framework to Develop Pragmatics in the Foreign Language Classroom: The 6R Approach*. 16(2), p.39.
- Markee, Numa. (1994). *Curricular Innovation: Issues and Problems*. 5(2), p. 1.
- Marsh, Fulya. (2007). *Teacher-Student Partnership in Evaluating and Revising a Multidisciplinary Sustained-Content English Language Course*. 17(1&2), p. 15.
- Matsuo, Naoko. (2000). *Varieties of Conversational Experience: Looking for Learning Opportunities*. 11(2), p.265.
- McCullum, Daniel L. (2003). *Investigating Non-Cognitive Components of Foreign Language Achievement*. 13(1), p. 19.
- McCulloh, Ian A.; Morton, Jillian; Jantzi, Jennifer K.; Rodriguez, Amy M. & Graham, John. (2008). *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)*. 18(1 & 2). p. 17.
- McGarry, Richard. (2004). *Error Correction as a Cultural Phenomenon*. 14(1), p. 63.
- McQuillen, Jeff. (1994). *Reading versus Grammar: What Students Think is Pleasurable and Beneficial for Language Acquisition*. 5(2), p. 95.
- Mecarty, Frances H. (2000). *Lexical and Grammatical Knowledge in Reading and Listening Comprehension by Foreign Language Learners of Spanish*. 11(2), p. 323.
- Meunier, Lydie E. (1994). *Computer-Assisted Language Learning in Cooperative Learning*. 5(2), p. 31.
- Mills, Susana V. (2006). *An Exploratory Study of Differing Perceptions of Error Correction between Teachers and Students: Bridging the Gap*. 16(1), p.55.
- Mojica-Diaz, Clara C. (2006). *The Effects of Formal Instruction and Study Abroad on Improving Proficiency: The Case of the Spanish Subjunctive*. 16(1). p.17.
- Mollaun, Pamela. (2004). *The Effects of Notetaking, Lecture length, and Topic on a Computer-Based Test of ESL Listening Comprehension*. 14(1). p. 83.
- Mollering, Martina. (1995). *Pragmatics in Interlanguage: German Modal Particles*. 6(1 & 2), p. 41.
- Moore, Rita. (1997). *A Link Between Reading Proficiency and Native-Like Use of Pausing in Speaking*. 8(1), p. 25.
- Mora, Raimundo. (1995). *Silence, Interruptions, and Discourse Domains: The Opportunities to Speak*. 6(1 & 2), p. 27.
- Munro, Murray J. (1997). *Pronunciation Instruction for "Fossilized" Learners: Can It Help?* 8(2), p. 217.
- Nunan, David. (1993). *From Learning-Centeredness to Learning Centeredness*. 4(1 & 2), p. 1.
- Nunan, David. (1995). *Pragmatics in Interlanguage: German Modal Particles*. 6(1 & 2), p. 41.
- Olive, Floyd. (1998). *Essay Scores as Instruments for Placement and Advancement in an Intensive English Program*. 9(1 & 2), p. 107.
- O'Mara, Francis. (1991). *Measurement and Research Implications of Spolsky's Conditions for Second Language Learning*. 2(1), p. 71.
- Orr, Joseph. (2000). *Language Training Opportunities: Today and Tomorrow 2000 Command Language Program Manager Seminar*. 11(2), p. 367.
- Otto, Sue K. (1991). *Training in Instructional Technologies: Skills and Methods*. 2(2), p. 15.
- Overstreet, Maryann. (1999). *Fostering Pragmatic Awareness*. 10(1 & 2), p. 1.
- Oxford, Rebecca L. (1992). *Language Learning Strategies: Crucial Issues of Concept and Definition*. 3(1 & 2), p. 1.
- Oxford, Rebecca L. (1993). *Instructional Implications of Gender Differences in Second/Foreign Language Learning Styles and Strategies*. 4(1 & 2), p. 65.
- Oxford, Rebecca L. (1996). *Employing a Questionnaire to Assess the Use of Language Learning Strategies*. 7(1 & 2), p. 25.
- Oxford, Rebecca L. (1997). *A Gender-Related Analysis of Strategies Used to Process Written Input in the Native Language and a Foreign Language*. 8(1), p. 43.
- Patton, Jon. (1992). *Factors Relating to Learning a Foreign Language among High- and Low-Risk High School Students with Learning Disabilities*. 3(1 & 2), p. 37.
- Patton, Jon. (1998). *Factors in the Prediction of Achievement and Proficiency in a Foreign Language*. 9(1 & 2), p. 71.
- Porto, Melina. (2001). *Second Language Acquisition Research: Implications for the Teachers*. 12(1), p. 45
- Plonsky, Luke. (2006). *An Exploratory Study of Differing Perceptions of Error Correction between Teachers and Students: Bridging the Gap*. 16(1), p.55.
- Pusack, James C. (1991). *Software for Language Training: Directions and Opportunities*. 2(2), p. 61.
- Raugh, Harold. (2006). *The Origins of the Transformation of the Defense Language Program*. 16(2), p. 1.
- Rekart, Deborah. (1992). *The Utility of Objective (Computer) Measures of the Fluency of Speakers of English as a Second Language*. 3(1 & 2), p. 65.
- Rivers, Marilyn, & Hughes Wilhelm, Kim. (2001). *An Audience Approach to EAP Writing Assessment: Learners, Teachers, Outsiders*. 12(2), pp. 177.
- Rossiter, Marian J. (2001) *The Challenges of Classroom-Based SLA Research*. 12(1), p. 31.
- Rossiter, Marian J. & Derwing, Tracey M. (2003) *The Effects of pronunciation Instruction on the Accuracy, Fluency and Complexity of L2 Accented Speech*. 13(1), p. 1.
- Rossiter, Marian J. (2005) *Developmental Sequences of L2 Communicative Strategies*. 15(1 & 2), p. 55.

- Ryan, Gen. Michael E. (2000). *Language Skills in Expeditionary Aerospace Force*. 11(1), p. 13.
- Sasaki, Yoshinori & Hayakawa, Harumi. (2003). *Does a Quiz Facilitate or Spoil Language Learning? Instructional Effects of Lesson Review Quizzes*. 13(1), p. 33.
- Schweers, C. William. (1997). *What Researchers Say and Practitioners Do: Perspectives on Conscious Grammar Instruction in the ESL Classroom*. 8(2), p. 237.
- Shaver, Peter, & Callahan, Philip. (2001). *Formative Considerations Using Integrative CALL*. 12(2), p. 147.
- Shelton, Gen. Henry H. (1999). *Letter to the Editor*. 10(1 & 2) p. i.
- Shook, David J. (1994). *FL/L2 Reading, Grammatical Information, and the Input-to-Intake Phenomenon*. 5(2), p. 57.
- Shook, David J. (1999). *What Foreign Language Recalls About the Input-to-Intake Phenomenon*. 10(1 & 2), p. 39.
- Sparks, Richard. (1992). *Factors Relating to Learning a Foreign Language among High- and Low-Risk High School Students with Learning Disabilities*. 3(1 & 2), p. 37.
- Sparks, Richard. (1998). *Factors in the Prediction of Achievement and Proficiency in a Foreign Language*. 9(1 & 2), p. 71.
- Štefáňik, Jozef. (2001). *The Critical Period Hypothesis and the Slovak Language*. 12(2), p. 161.
- Stoller, Fredricka. (1995). *Examining the Value of Conversation Partner Programs*. 6(1 & 2), p. 1.
- Suh, Jae-Suk. (1999). *The Effects of Reading Instruction on Reading Attitude, and Reading Process by Korean Students Learning English as a Second Language*. 10(1 & 2), p. 77.
- Supinski, Col. Stanley B. (2001). *Russian Language Development and Maintenance at a Distance: Methodology and Technology*. 12(1), p. 1.
- Sutherland, Richard L. (2001). *Russian Language Development and Maintenance at a Distance: Methodology and Technology*. 12(1), p. 1.
- Tomlinson, Brian. (2000). *Talking to Yourself: The Role of the Inner Voice in Language Learning*. 11(1), p. 123.
- Tovar, Deanna. (2006). *Action Research as a Professional Development Tool for Teachers and Administrators*. 16(1), p.75.
- Uso-Juan, Esther. (2006). *A Comprehensive Pedagogical Framework to Develop Pragmatics in the Foreign Language Classroom: The 6R Approach*. 16(2), p.39.
- Valentine, Capt. Susan M. (2001). *Russian Language Development and Maintenance at a Distance: Methodology and Technology*. 12(1), p. 1.
- Valdman, Albert. (1989). *The Problem of the Target Model in Proficiency-Oriented Foreign Language Instruction*. 1(1), p. 33.
- Van Lier, Leo. (1991). *Inside the Classroom: Learning Processes and Teaching Procedures*. 2(1), p. 29.
- Vann, Roberta J. (1996). *Introduction: Validity Issues in the Assessment of L2 Learner Strategies*. 7(1 & 2), p. 1.
- Vann, Roberta J. (1996). *Using Task Products to Assess Second Language Learning Processes*. 7(1 & 2), p. 61.
- Vanniarajan, Swathi. (1997). *An Interactive Model of Vocabulary Acquisition*. 8(2), p. 183.
- VanPatten, Bill. (1997). *The Effects of Lexical and Grammatical Cues on Processing Past Temporal References in Second Language Input*. 8(1), p. 1.
- van Lier, Leo. (2000). *Varieties of Conversational Experience: Looking for Learning Opportunities*.
- Wiebe, Grace. (1997). *Pronunciation Instruction for "Fossilized" Learners: Can it Help?* 8(2), p. 217.
- Yeon, Sang-Hee. (2008). *Training English Word-Final Palatals to Korean Speakers of English*. 18(1 & 2). p. 51.
- Young, Dolly Jesuita. (1997). *A Gender-Related Analysis of Strategies Used to Process Written Input in the Native Language and a Foreign Language*. . 8(1), p. 43.
- Young, Richard. (1995). *Discontinuous Interlanguage Development and Its Implications for Oral Proficiency Rating Scales*. 6(1 & 2), p. 13.
- Yule, George. (1999). *Fostering Pragmatic Awareness*. 10(1 & 2), p. 1.

Reviews

- Akutsu, S. (1997). *Review: Taylor: Writing and Literacy in Chinese, Korean and Japanese*. 8(1), p. 128.
- Antokhin, Natalia. (2006). *Review: Language Play*. 16(2), p. 86.
- Barrera Pardo, Dario. (2000). *Leather and James (Eds.): New Sounds 97*. 11(2), p. 351.
- Bean, Martha S. (1995). *Review: Cook: Discourse*. 6(1 & 2), p. 89.
- Bean, Martha S. (1997). *Review: Eggins and Slade: Analyzing Casual Conversation*. 2(3), p. 23.
- Bean, Martha S. (2000). *Review: Schmidt: Language Policy and Identity Politics in the United States*. 11(2), p. 349.
- Chu, Kevin W. K. (1998). *Review: Kenny and Savage (Eds.): Language and Development: Teachers in a Changing World*. 9(1 & 2), p. 149.
- Dinh-Hoa, Nguyen. (1997). *Review: Vuong and Moore: Colloquial Vietnamese*. 8(2), p. 329.
- Gale, Roderic A. (1998). *Review: Gates: The Road Ahead*. 9(1 & 2), p. 154.
- Hedgcock, John. (2008). *Review: Conversation Analysis and Language for Specific Purpose*. 18(1 & 2). p. 77.
- Hedgcock, J.S. (1997). *Review: The Current State of Interlanguage: Studies in Honor of William Rutherford*. 8(1), p. 119.
- Hedgcock, John. (2001). *Review: Herschensohn: The Second Time Around: Minimalism and L2 Acquisition*. 12(1). p. 87
- Hedgcock, John. (2003). *Review: Nikolov: Issues in English Language Education*. 13(1), p. 73.
- Hedgcock, John S. (2005). *Review: Alan Davis & Catherine Elder, Eds: The Handbook of Applied Linguistics*. 15(1 & 2), p. 67.
- Hirai, Mutsumi. (2004). *Review: Nihongo Shokyu Dokkai Yomikata + Kakikata: Reading and Writing in Japanese for Beginners*. 14(1), p. 107
- Jackson, Gordon L. (2000). *Review: González and Farrell: Composición Práctica*. 11(1), p. 221.
- Jourdenais, Renee. (2000). *Review: Schneider: Multisensory Structured Metacognitive Instruction*. 11(1), p. 211.
- Kelley, Jeremy. (2007). *Review: Leon and Bhatt: Structure du Francais Moderne: Introduction a l'analyse linguistique (3rd Ed. Rev.)*. 17(1&2), p. 91.
- Ko, Myong Hee. (2006). *Review: Andrew K. English & Laura K. English: North Star Reading and Writing: High Intermediate and Advanced*. 16(1), p.81.
- Kuo, J. (1997). *Review: Taylor: Writing and Literacy in Chinese, Korean, and Japanese*. 8(1), p. 128.
- Lesikin, Joan. (2000). *Review: Kozyrev: Talk it Over! Talk it Up!* 11(1), p. 217.
- Nation, Paul. (1997). *Review: Strange (Ed.): Penguin Readers*. 8(2), P. 317.
- Müller, Kurt E. (2003). *Review: Department of the Army: The Language Bridge fo the Future: Army Language Master Plan*. 13(1), p. 69
- Olsen, Brigitte. (1997). *Review: Taylor and Haas: German: A Self-Teaching Guide*. 8(2), p. 327.
- Plakans, L. (1997). *Review: Reeder, Shapiro, Watson, and Goelman: Literate Apprenticeships*. 8(1), p. 132.
- Shin, Sang-Keun. (2001). *Review: Brinton, Jenson, Repath-Martos, Frodesen, and Holten: Insights I and II: A Content Based Approach to Academic Preparation*. 12(1), p. 93.

- van Lier, Leo. (1998). *Review: Cots: Teaching by Chattinb.* 9(1 & 2), p. 147.
- Vanniarajan, Swathi. (2000). *Review: Pinker: Words and Rules: The Ingredients of Language.* 11(1), p. 213.
- Vanniarajan, Swathi. (2001). *Review: Searle: Mind, language, and Society.* 2(2), p. 191.
- Vanniarajan, Swathi. (2005). *Review: Zhaohong Han: Fossilization in Adult Second Language.* 15(1 & 2), p. 70.
- Vanniarajan, Swathi. (2006). *Review: Bar, David: ICT--Integrating Computers in Teaching.* 16(2), p. 83.
- White, Philip A. (1998). *Review: Lee and Van Patten: Making Communicative Language Teaching Happen: Directions for Language Learning and Teaching.* 9(1 & 2), p. 151.
- Wong, Lai. (2005). *Review: Diane Larse-Freeman: Teaching Language: From Grammar to Grammar.* 15(1 & 2), p. 74.
- Woytak, Lidia. (1995). *Review: Van Lier: Introducing Language Awareness.* 6(1 & 2), p. 91.
- Yamahita, Hisako. (2004). *Review: Tema-betsu Chukyu Kara Manabu Nihongo.* 14(1), p. 108
- Zhao, Jim Jieliu. (2003). *Review: Katuzynska: Contemporary Chinese Place Names.* 13(1), p. 67.

Editorials

- Devlin, Col. Daniel D. (2000). *Military Linguists for the New Millennium.* 11(1), p. 1.
- Money, Arthur L. (2000). *Language Skills and Joint Vision 2020.* 11(2), p. 235.
- Mueller, Col. Gunther A. (2000). *Beyond the "Linguist": Global Engagement Skills.* 11(1), p. 15.
- Reimer, Gen. Dennis J. (1997). *Army Language Needs for the New Century.* 8(2), p. 147.
- Ryan, Michael E. (2000). *Language Skills in Expeditionary Aerospace Force.* 11(1), pp. 13-14.
- Shelton, Gen. Henry H. (2000). *Preparing for the Future: Joint Vision 2010 and Language Training.* 11(1), p. 5.

Interviews

- Woytak, Lidia. (1997). *Linguists in Action: Interview with Colonel Daniel D. Devlin.* 8(2), p. 295.
- Woytak, Lidia. (1998). *Interpreter in Action: Interview with Lieutenant Colonel Richard Francona (Retired).* 9(1 & 2), p. 121.
- Woytak, Lidia. (2000). *Leading the U.S. Army into the New Millennium: Interview with General Dennis J. Reimer.* 11(1), p. 33.

News and Views

- DoD. (2004). *National Language Conference Results.* 14(1), p. 111
- León, Natalia Martinez & Smith, Patrick H. (2003). *Transnationalism and Language-in-Education Planning in Mexico.* 13(1), p. 57.
- Smith, Patrick H. & León, Natalia Martinez. (2003). *Transnationalism and Language-in-Education Planning in Mexico.* 13(1), p. 57.
- Woytak, Lidia. (2003). *Say, Yes! to the National Museum of Language.* 13(1), p. 61.
- Woytak, Lidia. (2005). *Towards Faster, Bigger, and Better Computers.* 15(1 & 2), p. 77.

General Information

Calendar of Events

2011

- American Association of Teachers of Slavic and East European Languages (AAT-British Association for Applied Linguistics (BAAL))**, 1–3 September, Bristol, UK. Contact: Web: www.baal.org.uk
- African Studies Association (ASA)**, 17–20 November, Washington, DC. 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: annualmeeting@africanstudies.org Web: www.africanstudies.org
- American Association of Teachers of German (AATG)**, 18–20 November, Denver, CO. 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)**, 18–20 November, Denver, CO. Contact: Edoardo Lebano, Executive Director, AATI, Department of French and Italian, Indiana University, Ballentine 642, Bloomington, IN 47405; (812) 855-2508, Fax (812) 855-8877; Email: elebano@hotmail.com Web: www.aati-online.org/
- American Council on the Teaching of Foreign Languages (ACTFL)**, 18–20 November, Denver, CO. Contact: ACTFL, 1001 N. Fairfax St., Suite 200, Alexandria, VA 22314; (703) 894-2900, Fax (703) 894-2905; Email: headquarters@actfl.org Web: www.actfl.org
- Chinese Language Teachers Association (CLTA)**, 18–20 November, Denver, CO. Contact: CLTA, Cynthia Ning, Executive Director, 416 Moore Hall, 1890 East-West Road, University of Hawaii, Honolulu, HI 96822; (808) 956-2692, Fax (808) 956-2682; Email: clta@clta-us.org Web: clta-us.org
- National Network for Early Language Learning (NNELL)**, 18–20 November, Denver, CO. Contact: NNELL, PO Box 7266, B 201 Tribble Hall, Wake Forest University, Winston-Salem, NC 27109; Email: nnell@wfu.edu Web: www.nnell.org
- 4th International Conference on Task-Based Language Learning (TBLT)**, 18–20 November, Auckland, New Zealand. Contact: Email: TBLT@auckland.ac.nz Web: www.confer.co.nz/tblt2011/index.html

2012

- American Association of Teachers of Slavic and East European Languages (AAT-SEEL)**, 5–8 January, Seattle, WA. Contact: Patricia L. Zody, Executive Director, AATSEEL, PO Box 569, Beloit, WI 53512-0569; (608) 361-9697, Fax: (608) 363-7129; Email: aatseel@sbcglobal.net Web: www.aatseel.org
- Linguistic Society of America (LSA)**, 5–8 January, Portland, OR. Contact: LSA, 1325 18th St. NW, # 211, Washington, DC 20036-6501; (202) 835-1714, Fax (202) 835-1717, Web: www.lsadc.org
- Modern Language Association (MLA)**, 5–8 January, Seattle, WA. Contact: MLA, 26 Broadway, 3rd Floor, New York, NY 10004-1789; (646) 576-5000, Fax (646) 458-0030; Web: www.mla.org
- Intercultural Competence and Foreign/Second Language Immersive Environments**, 26–29 January, Tucson, AZ. Contact: Center for Educational Resources in Culture, Language and Literacy (CERCLL), Modern Languages Room 561, University of Arizona, Tucson, AZ 85721; (520) 626-8071, Fax (520) 626-3316; Email: cercll@email.arizona.edu Web: www.cercll.arizona.edu

2013

Central States Conference on the Teaching of Foreign Languages (CSCTFL), 8–10 March, Milwaukee, WI. 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

Cultures and Languages Across the Curriculum (CLAC), 9–10 March, Minneapolis, MN. Contact: CLAC Consortium, Web: clacconsortium.org/

Southern Conference on Language Teaching (SCOLT), 22–24 March, Location TBA. 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: www.scolt.org

American Association for Applied Linguistics (AAAL), 24–27 March, Boston, MA. Contact: American Association for Applied Linguistics, 2100 Roswell Road, Suite 200C PMB 214, Marietta, GA 30062; (678) 229-2892, Fax: (678) 560-9112; Email: info@aaal.org Web: www.aaal.org

Teachers of English to Speakers of Other Languages (TESOL), 28–31 March, Philadelphia, PA. Contact: TESOL, 1925 Ballenger Avenue, Suite 550, Alexandria, VA 22314; (703) 836-0774, Fax (703) 836-7864; Email: info@tesol.org Web: www.tesol.org

American Educational Research Association (AERA), 13–17 April, Vancouver, Canada. Contact: AERA, 1430 K Street, NW, Washington, DC 20005; (202) 238-3200, Fax (202) 238-3250; Web: www.aera.net

Northeast Conference on the Teaching of Foreign Languages (NECTFL), 21–23 April, Baltimore, MD. Contact: Rebecca Kline, Executive Director, NECTFL, c/o Dickinson College, PO Box 1773, Carlisle, PA 17013-2896; (717) 245-1977, Fax (717) 245-1976; Email: nectfl@dickinson.edu Web: www.nectfl.org

British Association for Applied Linguistics (BAAL), 6–8 September, Southampton, UK. Contact: Web: www.baal.org.uk

American Association of Teachers of German (AATG), 16–18 November, Philadelphia, PA. 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), 16–18 November, Philadelphia, PA. Contact: Edoardo Lebano, Executive Director, AATI, Department of French and Italian, Indiana University, Ballentine 642, Bloomington, IN 47405; (812) 855-2508, Fax (812) 855-8877; Email: elebano@hotmail.com Web: www.aati-online.org/

American Council on the Teaching of Foreign Languages (ACTFL), 16–18 November, Philadelphia, PA. Contact: ACTFL, 1001 N. Fairfax St., Suite 200, Alexandria, VA 22314; (703) 894-2900, Fax (703) 894-2905; Email: headquarters@actfl.org Web: www.actfl.org

Chinese Language Teachers Association (CLTA), 16–18 November, Philadelphia, PA. Contact: CLTA, Yea-Fen Chen, Executive Director, Curtin 892, 3243 N. Downer Ave., University of Wisconsin-Milwaukee, Milwaukee, WI 53211; (414) 229-2492, Email: yeafen.uwm@gmail.com Web: clta-us.org

National Network for Early Language Learning (NNELL), 16–18 November, Philadelphia, PA. Contact: NNELL, PO Box 7266, B 201 Tribble Hall, Wake Forest University, Winston-Salem, NC 27109; Email: nnell@wfu.edu Web: www.nnell.org

African Studies Association (ASA), 29 November – 2 December, Philadelphia, PA. Contact: ASA, Rutgers University, 54 Joyce Kilmer Avenue, Piscataway, NJ 08854; (732) 445-8173, Fax (732) 445-1366; Email: annualmeeting@africanstudies.org Web: www.africanstudies.org

American Association of Teachers of Slavic and East European Languages (AATSEEL), 3–6 January, Boston, MA. Contact: Patricia L. Zody, Executive Director, AATSEEL, PO Box 569, Beloit, WI 53512-0569; (608) 361-9697, Fax: (608) 363-7129; Email: aatseel@sbcglobal.net Web: www.aatseel.org

Linguistic Society of America (LSA), 3–6 January, Boston, MA. Contact: LSA, 1325 18th St. NW, # 211, Washington, DC 20036-6501; (202) 835-1714, Fax (202) 835-1717, Web: www.lsadc.org

Modern Language Association (MLA), 3–6 January, Boston, MA. Contact: MLA, 26 Broadway, 3rd floor, New York, NY 10004-1789; (646) 576-5000, Fax (646) 458-0030; Web: www.mla.org

American Association for Applied Linguistics (AAAL), 17–20 March, Dallas, TX. Contact: American Association for Applied Linguistics, 2100 Roswell Road, Suite 200C PMB 214, Marietta, GA 30062; (678) 229-2892, Fax (678) 560-9112; Email: info@aaal.org Web: www.aaal.org

Teachers of English to Speakers of Other Languages (TESOL), 20–23 March, Dallas, TX. Contact: TESOL, 1925 Ballenger Avenue, Suite 550, Alexandria, VA 22314; (703) 836-0774, Fax (703) 836-7864; Email: info@tesol.org Web: www.tesol.org

British Association for Applied Linguistics (BAAL), 5–7 September, Edinburgh, UK. Contact: Web: www.baal.org.uk

African Studies Association (ASA), 21–24 November, Baltimore, MD. Contact: ASA, Rutgers University, 54 Joyce Kilmer Avenue, Piscataway, NJ 08854; (732) 445-8173, Fax (732) 445-1366; Email: annualmeeting@africanstudies.org Web: www.africanstudies.org

American Association of Teachers of German (AATG), 22–24 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), 22–24 November, Orlando, FL. Contact: Edoardo Lebano, Executive Director, AATI, Department of French and Italian, Indiana University, Ballentine 642, Bloomington, IN 47405; (812) 855-2508, Fax (812) 855-8877; Email: elebano@hotmail.com Web: www.aati-online.org/

American Council on the Teaching of Foreign Languages (ACTFL), 22–24 November, Orlando, FL. Contact: ACTFL, 1001 N. Fairfax St., Suite 200, Alexandria, VA 22314; (703) 894-2900, Fax (703) 894-2905; Email: headquarters@actfl.org Web: www.actfl.org

Chinese Language Teachers Association (CLTA), 22–24 November, Orlando, FL. Contact: CLTA, Yea-Fen Chen, Executive Director, Curtin 892, 3243 N. Downer Ave., University of Wisconsin-Milwaukee, Milwaukee, WI 53211; (414) 229-2492, Email: yeafen.uwm@gmail.com Web: clta-us.org

National Network for Early Language Learning (NNELL), 22–24 November, Orlando, FL. Contact: 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*.

References

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.

Review Article

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

Submit reviews of textbooks, scholarly works on foreign language education, dictionaries, tests, computer software, video tapes, and other non-print materials. Point out both positive and negative aspects of the work(s) being considered. In the three to five double-spaced pages of the manuscript, give a clear but brief statement of the work's content and a critical assessment of its contribution to the profession. Keep quotations short. Do not send reviews that are merely descriptive.

Manuscripts are accepted for consideration with the understanding that they are original material and are not being considered for publication elsewhere.

Editorial Correspondence

All editorial correspondence, including manuscripts for publication should be sent to:

lidia.woytak@us.army.mil

If needed, use surface mail to send items to:

Applied Language Learning
ATFL-AP-AJ
ATTN: Editor (Dr. L. Woytak)
Defense Language Institute
Foreign Language Center
Presidio of Monterey, CA 93944-5006

Specifications for Manuscripts

Manuscripts should be attached to the email, double-spaced, with ample margins. Subheadings should be used at reasonable intervals. Typescripts should typically run from 10 to 25 pages. Please use only black and white throughout the manuscript including for graphics and tables.

All material submitted for publication should conform to the style of the *Publication Manual of the American Psychological Association* (5th Ed., 2001) available from the American Psychological Association, P. O. Box 2710, Hyattsville, MD 20784.

Preferably use Windows-based software, or name the software used. Attach manuscripts to e-mail. lidia.woytak@us.army.mil

Review Process

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.

Copyright

Further reproduction is not advisable. Whenever copyrighted materials are reproduced in this publication, copyright release has ordinarily been obtained for use in this specific issue. Requests for permission to reprint should be addressed to the Editor and should include author's permission.

Applied Language Learning
Defense Language Institute
Foreign Language Center
Presidio of Monterey, CA 93944-5006