Applied Language Learning
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* online, go to:

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.

**Postmaster**
Send change-of-address information to:

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

**United Parcel Service Customers**
Location is:

*Applied Language Learning*
Bldg. 614, Room 243
Presidio of Monterey, CA 93944-5006

**Readers and Authors**
Contact Editor, Dr. Howard (ATFL-APAS-AJ), *Applied Language Learning*

E-mail: jiaying.howard@dliflc.edu or jiaying.howard.civ@mail.mil.

**Printing Coordinators**
Tom Colin & Ricky Harris

**Webmasters**
Natela Cutter & Dusan Tatamirovic
Applied Language Learning
Volume 23 – 24
2013 - 2014

CONTENTS

Articles

1 Hypothesis Testing in Task-Based Interaction
   *Yujeong Choi and Cynthia Kilpatrick*

23 Variation in Second Language Learners’ Strategies among Non-native English Speakers from Three Language/Culture Backgrounds
   *Miriam Eisenstein Ebsworth, Frank Lixing Tang, Nikta Razavi, & Jacqueline Aiello*

47 Frequency versus Importance: Language Learning Strategy Use in the EFL Classroom
   *Ali Sidki Ağazade and Gülsen Musayeva Vefali*

63 Phonetic Training in the Foreign Language Curriculum
   *Kevin R. Burnham*

75 It Works for Me: From the High Achievers’ Perspective
   *Sang-Hee Yeon*

Reviews

87 Reflective Practice in ESL Teacher Development Groups: From Practices to Principles by Thomas S. C. Farrell
   *Jason Martel*

91 Creativity and Innovation in Language Education by Carmen Argondizzo
   *Mina Lee*

95 ALL Indexes

108 Upcoming Events 2014-2015

111 Information for Contributors

114 Call for Papers

115 Thank You Reviewers
Hypothesis Testing in Task-Based Interaction

YUJEONG CHOI
University of Toronto
CYNTHIA KILPATRICK
University of Taxes at Arlington

Whereas studies show that comprehensible output facilitates L2 learning, hypothesis testing has received little attention in Second Language Acquisition (SLA). Following Shehadeh (2003), we focus on hypothesis testing episodes (HTEs) in which learners initiate repair of their own speech in interaction. In the context of a one-way information gap task, we examine the linguistic categories targeted for HTEs, the proportion of grammatical and ungrammatical output, and the reaction of interlocutors. Results showed that high frequency of HTEs within a linguistic category did not necessarily result in grammaticality. Syntactic HTEs were quite frequent but rarely resulted in grammatically correct output. Moreover, interlocutors questioned phonological/lexical and syntactic HTEs more often than morphological HTEs, regardless of grammatical correctness. These findings indicate that learners target a variety of linguistic categories in HTEs, but interlocutors may ignore those that are not crucial for comprehension. We suggest pedagogical implications for English language teachers and the influence that the task may play on learners’ hypothesis testing.

Human interaction is the process of becoming involved in a collaborative and interactive effort. As Grice (1975) claims, every human being attempts to cooperate in conversation. However, interactions sometimes do not go as intended, and communication problems frequently arise between interlocutors, regardless of whether they share cultural or linguistic backgrounds. In order to resolve communication problems, speakers often modify, revise, or restate their previous utterances to make their interlocutor understand better. The process of modification for clarification, referred to as repair negotiation, is completed when participants in an interaction reach mutual understanding (Nakahama, Tyler, & van Lier, 2001; Varonis & Gass, 1985b).

Although misunderstandings can arise between any two interlocutors, how they are negotiated between speakers of different cultural and linguistic backgrounds has been of particular interest. Studies in second language
interactions have measured the effectiveness of the feedback given by a native speaker (NS) interlocutor to a non-native speaker (NNS), providing empirical evidence of second language (L2) development through these interactions (Ellis, 2007; Ellis, Loewen, & Erlam et al., 2006; Iwashita, 2003; Jeon, 2004; Long, 1996; Lyster & Ranta, 1997; Mackey & Philp, 1998). For example, Ellis et al. (2006) examine the extent to which recast and metalinguistic feedback improve English past tense acquisition for L2 English learners, finding that the group receiving metalinguistic feedback scored higher on a post-test than the group receiving recasts. Iwashita (2003) examined the effects of five types of interactional moves, grouped as negative feedback (e.g., recast and negotiation move) and positive evidence (e.g., completion model, translation model, and simple model) in acquiring Japanese locative-initial construction and verb morphemes, and claim that positive evidence is beneficial to learners only at the above-average level, whereas implicit negative feedback (e.g., recast and negotiation move) is beneficial to all learners regardless of proficiency level. These studies lend empirical support to the Interaction Hypothesis of Long (1996), which proposes that interaction helps learners connect input, attend to form, and produce a modified output.

Whereas most research on interaction has focused primarily on how an interlocutor’s feedback affects a learner’s utterances, a few studies (Liu, 2009; Sato, 2008; Shehadeh, 2003) have considered the relevance of how learners initiate and modify their utterances for themselves. Initiation and modification of utterances is referred to as self-initiated repair, because a learner realizes that an error or miscommunication exists, and initiates an attempt to repair the miscommunication. Considering that an ultimate goal of any language learning classroom is to help learners become more autonomous rather than reliant on teacher assistance, investigation into self-initiated repair can provide insight into how teachers can better lead their students to become autonomous learners. Because self-initiated repair shows the learners’ ability to monitor their own output and control over the target language, investigating L2 learners’ repair initiation has the potential to provide insight into the linguistic categories that learners are most able to self-repair. Taking this insight into learner self-repair as an overall goal, we describe here a study that examines self-initiated repair in interactions between non-native speakers of English in an effort to determine what linguistic categories are targeted, the degree to which grammaticality is achieved through the repair, and the interlocutors’ response to the repair.

SELF-INITIATED REPAIR, OUTPUT, AND HYPOTHESIS TESTING

The study of repair negotiation was pioneered by Schegloff, Jefferson, and Sacks (1977) in the research area of conversation analysis in an investigation of interactions between native speakers; Schegloff et al. (1977) considered repair to be a way to solve the problems of hearing, speaking, and understanding, which can obstruct ongoing interactions. One type of repair, self-initiated repair, can be more fully understood through consideration of Swain’s
Output Hypothesis, which proposes that exposure to comprehensible input is not enough. Instead, learners need practice in both comprehensible input and comprehensible output because “output pushes learners to process language more deeply (with more mental effort) than does input” (Swain, 1995, p. 126). Swain further delineates three clear functions of output in relation to the second language learner: (1) noticing the gap between the target language and the learner’s own interlanguage, (2) testing out a hypothesis related to this gap, and (3) reflecting on the target language form. The second of these functions, hypothesis testing, is the focus of the current investigation. In this function, NNSs test out new language forms and determine whether the new forms are comprehended by their interlocutors. During an interaction, learners may notice a problem with their speech, either through self-introspection or because the interlocutor communicates some misunderstanding. The learner then pays closer attention to the form of the target language and tests out a new hypothesis about how the language may work, reformulating faulty utterances to make themselves better understood by their interlocutor.

In order for hypothesis testing to occur, several conditions are necessary, including alertness, attention, and awareness. Tomlin and Villa (1994) characterize alertness as a readiness to the input that a learner receives. In essence, learners are ready for input and are in a state in which they are cognitively able to process incoming information. Alertness is the first necessary step to attention, which also includes orientation and detection, processes whereby learners direct their attention to some parts of the input more than others, and then focus in on some particular piece of information. Whereas Tomlin and Villa (1994) claim that the functions of attention do not require awareness, the Noticing Hypothesis of Schmidt (1990) proposes that awareness is a necessary requisite for learning.

The notion of awareness plays an important role in hypothesis testing because awareness is necessary in order for learners to detect a problem with a specific form in their speech and subsequently try out an alternate form. Schmidt (1990, 2001, 2010) claims that awareness is made up of three levels: perception, noticing, and understanding. Perception, as a first level of awareness, occurs on a subliminal level. Noticing, as the second level of awareness, allows the input that the learners receive to convert to intake and eventually move to long-term memory. Understanding, occupying the third level of awareness, allows learners to understand the target language structures more deeply through analysis, comparison, and hypothesis testing (Robinson, 2013; Schmidt, 1990, 2001, 2010).

Swain (1998) classified noticing in terms of noticing a form (attending to form in the input), noticing one’s interlanguage deficiencies (recognition that one cannot say what s/he wants to say accurately in the target language), and noticing a gap (recognition that one’s interlanguage is different from the target language). These types of noticing not only lead learners to raise their consciousness and attend to form but also provide learners with the opportunity to consider how to modify their language to become more target-like, and to formulate a hypothesis about how the target language works. Through
hypothesis testing, learners gain knowledge of the use and acceptability of linguistic forms in the target language.

As Gass, Behney, and Plonsky (2013) point out, the feedback that learners receive from their interlocutors may play an important role in helping learners determine whether their hypotheses are correct. Nobuyoshi and Ellis (1993) examined interactions in NS~NNS dyads, finding that learners who received clarification requests regarding their production of English past tense modified their output and produced more accurate past tense forms than learners who did not receive any feedback from their interlocutor. On the basis of these results, Nobuyoshi and Ellis argue that feedback from an interlocutor serves a crucial role in language learning; learners either confirm or disconfirm their hypotheses about the target language based on the feedback they receive from an interlocutor. Similarly, Chaudron (1988) proposes that learners use feedback to confirm, disconfirm, and readjust their interlanguage grammar. Farrell and Mallard (2006) further find that listeners of all proficiency levels frequently use hypothesis testing strategies to confirm information given by an interlocutor.

Shehadeh (2003) examines the frequency of hypothesis testing in NS~NNS interactions, concentrating solely on instances of HTEs by NNSs. His results show that learners tested out a hypothesis every 1.8 minutes, and that all of the ungrammatical hypothesis testing episodes remained unchallenged by the interlocutors. He concludes that the failure of NS interlocutors to challenge ungrammatical utterances may actually lead the NNS to believe that the structure is grammatical. He suggests that more L2 hypothesis testing studies are needed in order to more fully develop an understanding of how hypothesis testing plays out between learners in different contexts.

To date, most studies that have investigated hypothesis testing have focused on interactions between a non-native speaking participant (NNS) and a teacher, who is typically either a native or near-native speaker. However, it is possible that the way hypothesis testing works with a native-speaking or very fluent interlocutor is different from how it may proceed with a non-native speaker. In NNS~NS interactions, the native speaker is often thought of as an authority on English, whereas such an authority figure may not exist in NNS~NNS interactions. In classroom discourse, an interaction asymmetry may exist between teacher and students in which the teacher determines the nature of interactions, and in which learners may not participate voluntarily (van Lier, 1998; Hall & Walsh, 2002). Van Lier and Matsuo (2000) indicate that the proficiency level of interlocutors highly influences interactions and suggest that symmetrical interactions will produce more conversational features, as well as deeper processing. In a more recent study, Brooks (2009) shows that interactions where learners were paired with another student were both more linguistically demanding and more complex than interactions where the same learners were paired with an examiner. Because more complex interactions result in more negotiation of meaning, examination of NNS~NNS interactions may show different patterning of HTEs than Shehadeh’s NNS~NS interactions.
Given the findings and the research gap in previous studies, the current study contributes to the literature by examining hypothesis testing through repair negotiation in task-based interactions between NNSs. Specifically, this paper investigates instances of self-repair by NNSs in order to determine the frequency of hypothesis testing episodes, the linguistic category targeted, and the degree to which a grammatical form is achieved. The current study also seeks to examine to what extent learners’ ungrammatical output is challenged by their interlocutors in task-based interaction, and to what degree challenged and unchallenged hypotheses were grammatically correct. Focusing on the function of hypothesis testing in L2 learners’ self-initiated repair and drawing upon research questions investigated by Shehadeh (2003), this study proposes the following research questions:

Research Question 1: In NNS~NNS interactions, do the following three factors show variation in Hypothesis Testing Episodes?
   (a) linguistic categories targeted
   (b) grammatical or ungrammatical items
   (c) interlocutor response to the speaker

Research Question 2: What significant differences can be found between HTE usage with non-native speaking interlocutors in comparison with HTE usage in NNS~NS pairs in Shehadeh (2003)?

METHOD

A one-shot design (Mackey & Gass, 2005) aimed to examine the verbal behavior of learners in timed task-based interactions was used for this study. That is, this study did not measure pre- and post-tests differences due to treatment, but rather examined the use of and responses to hypothesis testing in an interactive setting. This study is a partial replication and extension of Shehadeh (2003) in that both studies investigated NNS’ hypothesis testing in a timed one-way information gap task. However, this study extends Shehadeh’s examination to NNS interlocutors and to multiple proficiency levels.

Participants

Twenty-two non-native speakers of English participated in this study. All were recruited from an Academic English Program at a large U.S. university and were paid for their participation. Students from a variety of language proficiency levels were selected, ranging from high beginning to advanced. Proficiency was defined based on the level of speaking and listening course that the students were enrolled in at the time of participation. Placement in the appropriate level course was based on either Comprehensive English Language Test (CELT) listening test scores (for students new to the program) or successful completion of the previous level (for students continuing in the program). Level 1, with early beginners, was the lowest level, and the most advanced learners in the program were in Level 6. The participants also came from a variety of L1 backgrounds: Chinese, French, Korean, Spanish, Thai, and Vietnamese. From
the twenty-two participants, 11 dyads were formed. Within the dyads, participants were from different L1 backgrounds in order to encourage the use of English, but they shared the same proficiency level in order to maintain an equal balance of interaction and to allow learners to participate in interactions more comfortably. Table 1 summarizes the learners’ demographic information.

Table 1: Learners’ Demographic Information

<table>
<thead>
<tr>
<th>Characteristics</th>
<th>Details</th>
</tr>
</thead>
<tbody>
<tr>
<td>Age</td>
<td>Mean: 24.9, S.D: 3.13</td>
</tr>
<tr>
<td></td>
<td>Range: 19 to 34 years</td>
</tr>
<tr>
<td>Length of stay in the U.S.</td>
<td>Mean: 8.3 months, S.D: 8.39</td>
</tr>
<tr>
<td></td>
<td>Range: 2 to 37 months</td>
</tr>
<tr>
<td>Gender</td>
<td>Male: 5, Female: 17</td>
</tr>
<tr>
<td>L1 background</td>
<td>4 Chinese, 1 French, 4 Korean, 9 Spanish, 2 Thai, 2 Vietnamese</td>
</tr>
<tr>
<td>Proficiency</td>
<td>2 high beginning, 6 low intermediate, 6 high intermediate, 6 low advanced, 2 high advanced</td>
</tr>
</tbody>
</table>

Materials

The materials used in this study were a set of communicative tasks designed to encourage learners to focus on meaning while conveying accurate information. The need for accurate information required that learners focus on form to some degree, though the tasks did not explicitly include a linguistic target. All tasks were one-way information gap tasks that involved one participant, the information holder, describing a picture to their partner, the information receiver, who drew a picture based on the information holder’s description. Following Shehadeh (2003), a simple picture was chosen so that learners could describe it successfully (for sample task, see Appendix). Because the information receiver was unable to see the original picture, the information holder had to focus on conveying accurate information so that the picture could be drawn correctly. When the information receiver did not understand the information holder, s/he had to negotiate for meaning in order to understand what to draw. Thus, both participants were encouraged to focus on meaning and to engage in negotiation for meaning as necessary.

A one-way information gap task was selected due to an expectation that it would engage a great deal of negotiation of meaning and hypothesis testing due to the flow of information exchange; because only one participant holds the information, the task would likely push information holders to transmit the information as accurately as they could, thus leading to more opportunities to test out hypotheses about the target language. Previous studies (Ellis, 2003; Long, 1980; Pica, Kanagy, & Falodun, 1993) have indicated that problem-solving tasks, information-gap tasks, and closed tasks that require learners to
agree on a single solution generate more negotiation because the tasks require more accurate information than open-ended discussion, and Choi (2012) showed that learners who participated in a similar one-way information gap task engaged in significantly more interaction than learners using a decision making task.

**Procedure**

Each dyad was recorded separately in a quiet lab on the university campus. Each pair was given instructions and asked to sit back-to-back so that they could focus more on their verbal output without using paralinguistic information such as gestures and eye contact, and so that they could not see each others’ papers. One learner, the information holder, was given a picture and was asked to describe it as accurately as possible to their interlocutor. The interlocutor, the information receiver, was asked to draw the picture based on what (s)he heard. Learners were given 12-13 minutes to complete the task. The entire dyadic interaction was audio-recorded using a digital audio recorder that was placed on a table directly in front of the dyads.

**Data transcription**

The 11 dyads produced a total of 141 minutes of interaction. The taped interactions were transcribed in total by a native speaker of English naïve to the experimental questions. All transcriptions were then checked for accuracy and completeness by the first author, who divided the transcript into turns and classified them based on Shehadeh’s proposed strategies. Fifty percent of these transcripts were then checked for accuracy by two volunteer researchers, both graduate students in linguistics. One was a native speaker of English and the other a native speaker of Korean with advanced skills in English. A Pearson’s correlation coefficient showed a strong, positive correlation between the two transcriptions, r = .99, n = 6, p = .00.

**Operationalizing the Hypothesis Testing Function**

In SLA, Hypothesis Testing functions in interaction have often been described in terms of Language-Related Episodes (LREs). An LRE is defined as part of a dialogue in which learners discuss, question, or modify their own or others’ utterances in relation to language form (e.g. spelling, pronunciation, meaning) (Swain, 1998; Swain & Lapkin, 1998; Williams, 1999). Similarly, Shehadeh (2003) defines a Hypothesis Testing Episode as an “utterance or part of an utterance in which the learner externalizes and explicitly experiments with his/her hypotheses about the TL” (Shehadeh, 2003, p. 160). Although these two concepts are similar, they are not the same: LREs represent many features in interaction (e.g., noticing, hypothesis testing, metalinguistic function etc.) and include both self-repair (e.g., modification/correction of an utterance by the original speaker) and other-repair (e.g., correction of a speaker’s utterance by an
interlocutor). HTEs, on the other hand, are limited to the function of hypothesis testing and involve only self-initiated repair. Thus, HTEs can be viewed as a subset of LREs.

In this study, we followed Shehadeh (2003) in specifically identifying observable HTEs as instances in which learners verbalized a hypothesis on their own with no assistance, or when learners verbalized a hypothesis and requested confirmation or explicitly asked for assistance. To do this, we first identified all instances of self-repair in the transcripts. Each self-repair was then examined and coded as an HTE only if it included one or both of the following criteria:

1. The speaker included a request for confirmation or assistance
2. The speaker paused or showed hesitation in the midst of the self-repair

Instances of self-repair that included neither of the criteria were not considered to be observable HTEs. Consider the example in (1):

(1) Self-Repair without observable HTE

Learner 1: Two flowers two very exotic flowers
Learner 2: Where?

Learner 1 engaged in self-repair by changing “two flowers” to “two very exotic flowers” but did this with no hesitation and no request for assistance or confirmation. This type of self-repair, which is more of an elaboration than a self-correction, was not considered an observable HTE and was not included for analysis.

On the other hand, consider the example in (2), where Learner 1 paused after the use of have, and then changed the verb form to has. Examples like those in (2) were considered to be observable HTEs due to the hesitation in the midst of the self-repair.

(2) Self-Repair with observable HTE

Learner 1: Um what else each each one of the gloves have (1.0) has a one name
Learner 2: mhm

Coding

After determining which instances of self-repair constituted HTEs, we coded each HTE as linguistic category, grammaticality, and reaction of interlocutor. Morphological HTEs were those that showed a repair related to morphological form, including such things as incorrect verb tense, person, or number, as shown in (2) above.

Syntactic HTEs involved a repair in word order or the structure of an utterance, but not simply in morphological form. Although both morphological and syntactic HTEs were included as a single category of morphosyntax in Shehadeh (2003), we coded them separately due to the difference in complexity between the two. Morphological errors are often less complex and involve misapplication of a rule, whereas syntactic errors are generally more complex and may involve a number of different syntactic processes. Furthermore, while Shehadeh (2003) coded phonological and lexical HTEs into separate categories,
we combined them into a single category here. Although the type of processing involved in phonological vs. lexical items may be quite different, in a task such as the one used here, it is at times impossible to tell the difference based solely on observation of the interaction. In other words, it was unclear whether the learner knew a word but not how to pronounce it, or whether the learner simply did not know the right word. An ambiguous phonological/lexical HTE is shown in (3).

(3)  Phonological/lexical HTE

Learner 1: and the man he wear the, on the head I forgot word like hit
        oh haht, wear something you wear on a head
Learner 2: hat?
Learner 1: hat yes

In example (3), the learner says he has forgotten a word, which would typically indicate a lexical issue, but he then offers the possible form *hit*, changes it to *haht*, and then simply reverts to a definition. In this case, the learner clearly has some knowledge of the word *hat*, but it is unclear if the problem he has is related to incomplete lexical knowledge or an inability to settle on the phonological form of the word. Because distinguishing between lexical and phonological HTES was often impossible, using a single category that included both lexical and phonological items was desirable.

In addition to linguistic category, HTES were also coded in terms of grammatical or ungrammatical correctness, where the targeted form was considered grammatical if the learner used a correct form in some attempt, and ungrammatical if the learner tried different forms but all were incorrect. Grammaticality referred specifically to the hypothesized form only, not to the entire utterance. Therefore, an HTE could be coded as grammatical if it resulted in the correct form for the targeted item, even when another untargeted error appeared in the phrase. Consider the example in (2) above, which was coded as grammatical. Learner 1 first said “…each one of the gloves have” and then noticed that the verb form was not quite correct. S/he tries out a different form to see if it works better. This change of form was defined as the HTE. The learner ultimately used the correct verb form, so this HTE was coded as grammatical because the learner arrived at a correct form for the targeted item, even though an additional error (“a one name”) occurs in the sentence.

Finally, the reaction of the interlocutor was coded as question/challenge, confirm, or ignore. HTES were coded as question/challenge when the interlocutor requested clarification, offered a correction, or questioned the particular item that the HTE targeted. For instance, in (3) above, when the interlocutor questions whether the targeted item is what s/he thinks it might be, the response was coded as “question/challenge.” Questioned responses also included those in which the interlocutor required clarification or requested more information following an HTE, as in (4).

(4)  Interlocutor question

Learner 1: circles only like uh (1.0) uh, uh a circle?
Learner 2: circle?
In (4), Learner 2 questions the word “circle”, which Learner 1 has used to describe part of the picture, indicating that he does not yet understand. Other responses were coded as ignore or confirm. Confirmed reactions were those in which the interlocutor specifically agreed with a particular item hypothesized. Ignored responses were ones where there was no acknowledgement of the HTE provided. These responses included those in which a different part of the utterance was questioned, or when the interlocutor continued interaction with no response to the HTE. In other words, coding as “ignore” simply indicated that the interlocutor accepted the form provided and focused on continuing the interaction.

Analysis

The data were first analyzed by using chi-squared tests to determine whether there were significant differences in frequencies in terms of the linguistic category of the HTE, whether the HTE resulted in grammaticality, and to what extent HTEs were challenged by the interlocutor. We also considered the number of HTEs per pair and per minute in order to determine whether HTEs in NNS~NNS interactions differed from the HTEs between NNS~NS reported in Shehadeh (2003).

RESULTS

The first research question examined linguistic category, grammaticality, and interlocutor response in HTEs used in NNS~NNS interactions. We consider each of these factors individually, and then examine how they may interact with one another.

Overall, 52 HTEs were identified in the interactions examined. For linguistic category, we found 11 HTEs that targeted morphological forms, 15 that targeted syntactic structures, and 26 that targeted phonological/lexical items. That is, a full half of the HTEs identified targeted phonological/lexical items. A chi-square test reaches significance for linguistic category at a level of \( p < .05 \) (\( \chi^2 (2, N = 52) = 6.96, p = .03 \)).

<table>
<thead>
<tr>
<th>Table 2: Frequencies of Linguistic Category</th>
</tr>
</thead>
<tbody>
<tr>
<td>Linguistic Category</td>
</tr>
<tr>
<td>----------------------</td>
</tr>
<tr>
<td>morphological</td>
</tr>
<tr>
<td>syntactic</td>
</tr>
<tr>
<td>lexical/phonological</td>
</tr>
<tr>
<td>Frequencies of output</td>
</tr>
</tbody>
</table>

Note: *= \( p < .05 \)

We also asked to what extent learners’ hypothesis testing attempts result in grammatical and ungrammatical output, but there was no significant difference found for grammatical vs. ungrammatical output (\( \chi^2 (1, N = 52) = .30, \).
Of the 52 HTEs identified, over half were grammatical; 28 resulted in a grammatical output and 24 resulted in an ungrammatical output. There was little difference in how successful learners were in producing correct outputs. Furthermore, we asked whether HTEs were challenged or accepted by interlocutors. Overall, HTEs were most often ignored (26 times) or questioned (22 times), but only rarely directly confirmed (4 times) ($\chi^2$ (2, N = 52) = 15.84, $p = .0003$).

The more interesting part of the question is not in how each of these factors played out individually, but in how they played out in relation to one another. First, consider the interaction of grammaticality and interlocutor response.

For grammatical responses, the interlocutor response was most often to ignore the HTE and continue with the communication, though in a few instances, the interlocutor questioned or directly confirmed the HTE. For ungrammatical responses, the opposite was true. In no cases were ungrammatical responses directly confirmed by the interlocutor, though responses were ignored in some instances. However, the most common response to ungrammatical HTEs was to question them. When the linguistic category is added in, a fuller pattern emerges.
First, we can see that lexical/phonological HTEs are fairly evenly ignored and questioned. Syntactic HTEs are also often questioned, and to a lesser extent, ignored. Morphological HTEs, on the other hand, look quite different. They are most often ignored (9 times), rarely confirmed (2 times), and never questioned, which may say something about the degree to which morphology is necessary in comprehension of interactions. Because verbal morphology in English carries very little semantic weight, the correctness of morphological indicators may not interfere with effective communication. To see more clearly the differences between the different linguistic categories, we next examine each linguistic category separately in terms of grammaticality and interlocutor response.

As seen in Table 6, of the 11 morphological HTEs, 10 produced grammatical items, whereas only one resulted in ungrammaticality. Only two of the morphological HTEs were confirmed by the interlocutor, with the rest ignored, including the ungrammatical item.

However, the syntactic HTEs looked quite different from the morphological ones.
Although the morphological HTEs were largely grammatical, the syntactic ones were wholly ungrammatical – in no case did an information-holder produce an utterance that was syntactically correct. In five cases, the interlocutor ignored the ungrammatical syntax, but in ten cases the syntax was questioned.

The lexical/phonological HTEs comprised a full half of the HTEs identified, at 26 of the 52. 18 of the 26 were grammatical, but even these were often questioned (5 times), though more often ignored (11 times) and rarely confirmed (2 times), as seen in Table 8. Ungrammatical lexical/phonological HTEs were most often questioned (7 of 8 times) with only one ignored. The frequency of interlocutors’ response differed by grammaticality in lexical HTEs, $\chi^2 (2, N = 52) = 8.00, p < .05$

**Table 8: Lexical/phonological HTEs**

<table>
<thead>
<tr>
<th></th>
<th>confirm</th>
<th>ignore</th>
<th>question</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Grammatical</td>
<td>2</td>
<td>11</td>
<td>5</td>
<td>18</td>
</tr>
<tr>
<td>Ungrammatical</td>
<td>0</td>
<td>1</td>
<td>7</td>
<td>8</td>
</tr>
<tr>
<td>Frequencies of output</td>
<td>2</td>
<td>12</td>
<td>12</td>
<td>26</td>
</tr>
</tbody>
</table>

Note: *$= p < .05$

Our second research question asked whether hypothesis testing proceeds in the same way with native and non-native speaking interlocutors. Looking at native-speaking interlocutors, Shehadeh (2003) found 39 HTEs were produced from eight dyads in 72 minutes of recorded interaction. In the current study with non-native speaking interlocutors, 52 HTEs were produced by the information-providers in 11 dyads, with a total of around 141 minutes of recorded interactions. Because the amount of time and number of dyads varied, an appropriate measure of frequency is to look at how often an HTE occurred on average. In Shehadeh’s study, HTEs occurred once every 1.8 minutes on average, whereas in the current study, they occurred only once every 2.7 minutes. Thus, it appears that HTEs are more frequent with native speaking interlocutors than with non-native speaking interlocutors. A similar result was also found by Mackey (2002), who used introspective interviews to determine that learners who interacted with NS interlocutors thought they tested out more hypotheses than those who interacted with NNS interlocutors. These results suggest that learners may use HTEs less often with NNS interlocutors than with NS interlocutors. It may be that learners use HTEs with native speakers as a means of checking their ongoing hypotheses, whereas learners rely on producing more confirmed hypotheses when interacting with non-native speakers. Additional direct examination of how HTEs are used with native and non-native speaking interlocutors would further confirm this hypothesis.

In terms of grammaticality, Shehadeh’s participants produced 24 HTEs that were grammatical and 15 that were ungrammatical, so 61.5 % were grammatical. In the current study, only 53.8% (28 grammatical, 24 ungrammatical) of HTEs resulted in a grammatically correct target. Whether the
interlocutor is a native or non-native speaker of the target language does not appear to significantly impact the degree to which HTEs result in grammatical utterances. In terms of linguistic category, a direct comparison of linguistic category is impossible due to the difference in coding. However, in the current study, 26 HTEs targeted morphological or syntactic items, and 26 targeted lexical/phonological items. Thus, of the 52 HTEs produced, a full half targeted lexical or phonological items, with the other half targeting syntactic and morphological items. Shehadeh (2003) found 22 HTEs in the morphosyntactic category, but only 17 in the lexical and phonological categories, which is not a significant difference between these two categories. However, it is possible that the distribution of morphological and syntactic HTEs was significantly different in Shehadeh’s study and the current one, but research that provides a more direct comparison is needed to answer this question more fully. Overall, the results of the current study with NNS~NNS dyads do not show significantly different results from Shehadeh’s study with NNS~NS pairs.

**DISCUSSION**

This study investigated learners’ hypothesis testing through self-initiated repair in NNS~NNS interaction. The first research question examined HTEs in three ways: linguistic category of target, grammaticality of output, and interlocutor reaction. We found three major conclusions that can be drawn from this study. The first is that lexical and phonological information plays a crucial role in NNS~NNS interactions that focus on meaning. The results indicate that phonological/lexical items were most often targeted for HTEs. This result may have been due to several factors, including the nature of the task. In these interactions, one learner was describing a picture to the other, requiring a great deal of accuracy in description of different items; if the name of an item is incorrect or incomprehensible due to phonology, the interlocutor may be unable to accurately draw what was described. Thus, the information-provider may have been very focused on providing the most correct lexical items and pronunciation, leading to a greater number of HTEs targeting phonological/lexical items.

The nature of a task allows learners to solve communication problems that occur during a task. When communication problems arise, they raise learners’ attention on form in a natural environment as well as provide an opportunity for negotiation of meaning. That is, negotiation of meaning and focus on form are a natural result of the learners’ need to complete a task (Willis & Willis, 2007). When a task is used that does not require completion, or that the learners can complete without truly interacting, a learner can simply avoid using linguistic structures that they are not comfortable with. In a task such as the ones used here, learners cannot avoid the use of particular lexical items that are needed to describe the pictures. Therefore, phonological/lexical items may have been targeted more often simply because the learners were unfamiliar with some of the pieces of the pictures they were describing.
In addition, it may be the case that phonological/lexical items were most often targeted for HTEs due to the nature of interactions themselves. For instance, a morphological error, such as an incorrect past tense form, can still be understood relatively easily by the interlocutor, whereas an incorrect lexical item or an inaccurate pronunciation may lead to misunderstanding, and in many cases, this misunderstanding must be resolved before continuing. Many studies have shown that phonological and lexical errors are repaired more often than morphological errors because they cause a communication breakdown more directly, whereas erroneous use of morphological items does not (Buckwalter, 2001; DeKeyser, 2005; Shehadeh, 2003; VanPatten, 2004). Moreover, the infinite numbers of lexical and phonological possibilities make it difficult for interlocutors to make educated guesses about meaning, whereas more limited possibilities for grammar rules make it possible for interlocutors to determine meaning even when the syntax or morphology is incorrect. Thus, lexical and phonological errors trigger more negotiation of meaning in order to repair the communication breakdown (Gass et al., 2013).

If the overall goal of interaction is to keep the interaction moving, then accurate phonological/lexical production is crucial to ongoing interaction, whereas the degree of accuracy for morphological items is less crucial. The less crucial role of morphology can be seen not only in the overall number of HTEs for the morphological category, but also in the lack of direct response from interlocutors. Morphological HTEs were never questioned, whether they were grammatical or not, although both syntactic and phonological/lexical HTEs were questioned regularly.

 Whereas morphology can be viewed as somewhat less important in interaction, the same explanation is not available for syntax. The relatively infrequent syntactic HTEs in comparison with phonological/lexical ones may be due to the ongoing nature of interaction and the particular task assigned in this study. If learners could describe the picture in a way that was understandable, then the goal had been met, even if grammaticality was not achieved. Therefore, learners may have been more concerned with getting their message across than with making sure that everything they said was grammatically correct, so syntax was more likely to be targeted in HTEs when the learner was unsure whether the overall message was clear. It may be the case that hypothesis testing enables the learners to draw attention to local items related to morphology and phonology/lexical items, but not more global syntactic items.

A focus on meaning rather than form may also provide an explanation for a second conclusion that we draw from our results: interactions with NNS-NNS dyads showed fewer HTEs than Shehadeh’s NNS-NS interactions. In conversing with native speakers, language learners may be looking for ongoing affirmation of their output, which they can expect a native-speaking interlocutor to provide. However, they may not have this same expectation with NNS interlocutors. In addition, they may not expect that their interlocutor has more extensive knowledge of English than they themselves do, so the focus in NNS-NNS interactions may be more on completion of a task than on grammatical accuracy, whereas interactions with native speakers may be more
focused on accuracy. Because little work has investigated interactions between NNSs, it is impossible to provide a complete explanation here, but a fruitful avenue for further research would be to examine more closely the differences in NNS~NS and NNS~NNS interactions.

The differences in NNS-NNS interactions in comparison may also play a role in the third conclusion that we draw based on the study described here: NNS interlocutors rarely directly confirmed hypotheses, but instead tend to simply continue the interaction when meaning is clear, or question when clarification is needed. In instances where utterances were grammatical, interlocutors most often ignored the repair and simply continued the interaction, whereas HTEs were questioned more frequently when the repair was ungrammatical or the meaning was unclear. In general, when meaning was clear, confirmation was not needed, but when more clarification was needed, learners continued to negotiate meaning through questioning.

CONCLUSION AND IMPLICATIONS

The importance of negotiation for meaning and self-repair of utterances to resolve communication problems has been of growing interest in Second Language Acquisition. To this point, though, there has been little work that has focused on interactions between two non-native speakers, especially in terms of Hypothesis Testing Episodes. Here, we have presented a modest study that examines HTEs in self-repair contexts in 11 NNS~NNS dyads. Results indicate that learners target some linguistic categories more than others. Specifically, learners are more likely to repair lexical and phonological information than either morphological or syntactic information. The focus on lexical and phonological items may have been affected by the nature of the task, which required one learner to describe a picture while another drew it. In the interactions examined here, the learners clearly focused on providing accurate lexical terms and pronunciation in order to aid their interlocutor in accurate drawing.

The response of the interlocutors who were drawing the pictures supports the idea that the interaction in general was focused on meaning more than on form. In these interactions, interlocutors rarely directly confirmed a repair offered in an HTE, and generally only questioned a repair when clarification was needed for the sake of meaning. The lack of confirmation of even grammatical responses, coupled with the finding that fewer HTEs were used in NNS~NNS interactions than in the NNS~NS interactions reported in Shehadeh (2003), may be indicative of overall differences in the use of hypothesis testing with native vs. non-native interlocutors. If NNSs recognize that their interlocutors may not have sufficient metalinguistic knowledge to aid them in the interaction, then they may simply not try out hypotheses as often. Although this is not a question that can be answered with the limited study described here, further work more directly targeting interactions between NS vs. NNS interlocutors would shed light on this issue.
A second question that we cannot speak to here is whether HTEs lead to actual learning of grammatical/ungrammatical items, because we did not test their grammatical knowledge (but see Choi and Kilpatrick 2013 for arguments that learning does take place in these instances). However, it does seem that learners make progress in determining whether their hypothesized forms impede communication or not. When learners are questioned or challenged, their interlocutor implicitly indicates that misunderstanding has occurred, and the learner can more carefully examine their hypothesis and revise it. Through testing and revising hypotheses, learners are closing the gap in their knowledge of L2 and progressing along a path to more proficient use of their second language.

There are several weaknesses involved in the study described here. First is the limited number of participants, as a larger group of learners may provide more robust results. In addition, the coding of lexical and phonological items in this study may have created a somewhat unnatural class. The coding of both phonological and lexical items into a single category was unavoidable here due to ambiguous HTEs that were not clearly one or the other. There are several ways that such ambiguity could be resolved in future studies. For instance, in a larger study with additional participants and much more data, these ambiguous items may not make up a large portion of the data. Video-taping and post-treatment interviews used for stimulated recall could also shed light on whether these ambiguous items are lexical or phonological in nature. These findings suggest several pedagogical implications in relation to HTEs. First, the similarity of results in NNS–NNS dyads with those of NNS–NS dyads indicates that learners actively engage in hypothesis testing even with non-native speakers of the target language. Given the clear use of HTEs in NNS–NNS dyads, teachers should consider the potential benefits of using communicative tasks in paired interactions in the classroom, but the type of task should be carefully considered. If the task stimulus does not require negotiation for meaning in order to achieve successful completion, learners may be less willing to engage in hypothesis testing and avoid using linguistic forms that they are not certain of.

Because hypothesis testing occurred regularly with tasks that focused on meaning, a question is raised as to whether a Focus on Form (Fotos, 1994, 2002; Nassaji & Fotos, 2011) would bring about similar results. Norris and Ortega (2000) found that integration of form and meaning together was more effective in improving grammatical knowledge than instruction in which form and meaning were separated. Thus it is quite possible that a task that requires a focus on both form and meaning would not only elicit negotiation for meaning, but would also enable them to raise their attention to L2 form and produce their utterances more carefully. An additional pedagogical implication suggested by the results of the current study is that instructors may need to carefully consider the type of feedback given to learners. As Nassaji and Fotos (2011) note, in order to encourage learners to modify their utterances on their own, providing more indirect feedback rather than correcting errors overtly provides learners with another chance to reflect on their previous utterances. Although the selection of feedback type is at least partially dependent on learners’ proficiency
level, the teacher’s feedback should be sufficiently salient that learners are able to use that feedback to notice the ungrammaticality of their utterance and subsequently formulate a new hypothesis about the linguistic structure.

The use of task-based language teaching with a focus on meaning as well as form leads learners to engage in more negotiation of meaning to attain successful communication. As learners negotiate meaning, their levels of alertness and attention lead them to an awareness of their own errors that creates an ideal environment for hypothesis testing. Although hypothesis testing may not proceed the same with NNS interlocutors as it does with NS interlocutors, the current study shows that learners are able to notice their own mistakes and test out hypotheses. As learners engage in hypothesis testing through self-repair, they build their autonomy as they contribute successfully to effective communication.

NOTES

1. All dyads produced HTEs in this study. The 11 pairs produced HTEs of the following frequencies: 1, 3, 4, 5, 6, and 10, for an average of 4.72 per pair.
REFERENCES


Choi, Y (2012). Repair negotiation by English L2 learners. Retrieved from ProQuest Digital Dissertations. (AAT 3553605)


APPENDIX
Information task (Adopted from Talk-A-Tivities by Richard Yorkey 2002)

Instructions to participants:
In this task, one of you will have a picture and your partner will have a blank piece of paper. Without letting your partner see the picture, describe what you see in the picture. Your partner will then draw on the blank paper what you describe. When you describe the things in the picture try to describe as accurately as possible. The partner who is drawing must listen carefully and draw what your partner says. If you do not understand what your partner says ask questions and discuss what to draw. You will have 12 minutes to complete this task.

AUTHORS
Yujeong Choi, PhD. Department of East Asian Studies, University of Toronto, Toronto, ON, Canada.

Cynthia Kilpatrick, PhD. Assistant Professor and Graduate Advisor for TESOL. Department of Linguistics and TESOL, University of Texas at Arlington, Arlington, TX.
Variation in Second Language Learners’ Strategies among Non-native English Speakers from Three Language/Culture Backgrounds

MIRIAM EISENSTEIN EBSWORTH
New York University - Steinhardt

FRANK LIXING TANG
New York University - Steinhardt

NIKTA RAZAVI
Simon Fraser University

JACQUELINE AIELLO
New York University – Steinhardt

This study explored the effects of cultural and linguistic background, L2 proficiency, and gender on language learning strategies for 263 college-level learners from Chinese, Russian, and Latino backgrounds. Data based on the SILL (Oxford, 2001) revealed that Russian students used significantly more strategies than the Chinese students in three categories: memory, cognition, and metacognition. The Latino students used significantly more strategies in only the metacognitive category as compared with the Chinese students. Students with higher English proficiency generally used more strategies. Interestingly, there was no significant difference in strategy use between the Russian group and the Latino group. Our data suggest that gender may interact with other variables such as language and culture as well as other contextual factors. A provocative finding shows that the memory strategy questions on the SILL may not have captured the actual memory strategies used by our Chinese students. Also, greater strategy use by more proficient learners raises a question regarding the role of cognitive load in using strategies when interlanguage is less sophisticated and greater effort must be expended.
INTRODUCTION

Many recent models of second language (L2) acquisition have included language learning strategies as a component of individual differences (Gardner & MacIntyre, 1993; MacIntyre & Noels, 1996), and researchers have drawn on the nature of strategy use to enrich our understanding of how languages are learned (Chamot, Barnhardt, El-Dinary, & Robbins, J. 2007; Cohen, 2010; Macaro, 2007). However, though much progress has been made in understanding the role of language learning strategies in L2 acquisition, questions still remain concerning how strategy use interacts with other variables such as language background, proficiency, and gender.

Oxford defines learning strategies as “specific actions, behaviors, steps, or techniques students use – often consciously - to improve their progress in apprehending, internalizing and using the L2” (Oxford, 1994, p.1). Macaro (2006) characterizes strategies as “the actions learners take in order to decode, process, store and retrieve language” (p. 109). If particular strategies are indeed associated with increased L2 proficiency (Oxford, 1996; Yen & Chou, 2009), it should be possible as suggested by Oxford (1995) and Chamot (2009) to improve language performance by enhancing strategy use as well as individualizing classroom instruction for learners who use particular strategies (Cohen, 2010). To the degree that distinctions in strategy use are tied to linguistic and cultural differences, a greater understanding of this issue has the potential to inform pedagogy in both homogeneous and heterogeneous settings.

In the U.S., learners of the English language (ELLs) from different linguistic and cultural backgrounds are often placed together. The New York area is typical of communities with multicultural populations where it is not uncommon for students from China to study side-by-side with peers from Latino and/or Russian cultures. This research will consider similarities and differences in the language learning styles of adults representing these three distinct communities as they acquire English as a second language (ESL) at different proficiency levels. Although we recognize that speakers of a single language may represent alternative subcultures (Gelder, 2005; Kuppens, 2009), for the purposes of this study we operationally define language as a reflection of culture as this is largely true for our participants.

Language strategy training is also relevant to our discussion. Successful approaches take into consideration learners’ personal approaches (Cohen & Weaver 2006; Dornyei, 1995; Oxford, 2001) some of which are related to the educational cultures typical of their communities. It is hoped that this research will contribute not only to our understanding of strategy use but also to more thoughtful choices in strategy training.
LITERATURE REVIEW

Language Learning Strategies: Classification and Measurement

Any study of language learning strategies (LLS) confronts the issue of measurement and classification of students’ conscious language learning behaviors. Systems developed to explore strategy use include O’Malley and Chamot (1990) and Wenden (1987). Hsiao and Oxford (2002) contrasted these alternatives and considered evidence regarding the number of factors involved in language learning strategies. A range of three to nine factors has been suggested in the literature (O’Malley & Chamot, 1990; Zhang, 2003). The most widely-used approach is the six-category system developed by Oxford (1990). Factor analysis confirmed that this model was more consistent with learners’ strategy use than others (Hsiao & Oxford, 2002). The six categories are metacognitive, cognitive, memory, compensation, social, and affective.

Using the six-category model, Oxford created the Strategic Inventory for Language Learning (SILL). This is a self-scoring survey consisting of 50 items that students respond to using a five-point Likert scale which has been tested extensively with different populations. Reliabilities (Cronbach’s alpha) range from .91 to .95. Regarding construct validity, Oxford reports substantial confirmation of SILL in relationships with language performance studies of groups from diverse backgrounds including Mainland Chinese and Taiwanese ESL students in the US (Chang, 1990), and Spanish-speaking EFL learners in Puerto Rico (Green, 1991). (See also Green & Oxford, 1995; O’Malley & Chamot, 1990; Riazi & Rahimi, 2005). Oxford (1996) notes that higher proficiency is correlated with more frequent strategy use and demonstrates relationships between SILL and language performance, learning style and setting. Although the SILL has been critiqued for its selection of strategies (Woodrow, 2005), Oxford asserts that the SILL remains viable for giving a general picture of strategy use.¹

Factors that Affect Language Learning Strategy Use

Linguistic and Cultural Background

Cultural and linguistic backgrounds appear to influence strategy use, and Oxford (1996) argues that often culture-based approaches to learning languages are acquired subconsciously. Indeed, research suggests that cultural background affects strategy choice (Reid, 1995), such as field dependence, introversion/extroversion, learning styles, and attitudes toward authority. Differences in learning strategies associated with cultural background have likewise been noted by Politzer and McGroarty (1985) and Griffiths (2003) who connect strategies to the perceived goal of language learning. This research demonstrates that language learning objectives associated with particular culture-based educational settings influence strategies. When language use is the goal, communicative-related strategies are seen as useful and effective.

¹
However, if the purpose of language learning is more focused on declarative knowledge or passing grammar tests, more rule-related strategies would be regarded as helpful. Oxford and Nyikos (1988) review four studies of adult learners identifying that participants’ language learning strategies reflected analytical, rule-based language instructional methods used in the university.

What follows is a summary of studies of Chinese, Russian and Spanish speaking students that have addressed the influence of culture in various contexts.

**Chinese Language Learning Strategies**

Research on learning strategies and styles among Chinese students has generated conflicting findings. Earlier studies concluded that Chinese students sometimes respond negatively to group learning (Woodrow & Shan, 2001). Nevertheless, Chen (2009) showed that Taiwanese junior high school students preferred group learning styles. Also, Chen (2005) found that advanced Chinese learners preferred target-language based strategies whereas intermediate Chinese ELLs privileged native language strategies. Chen concluded that “psychologically more demanding communication strategies” are effective when the learner has a larger lexicon (Chen, 2005, p. 190). Furthermore, multiple studies have identified metacognitive, compensation, and cognitive strategies as salient for learners of Chinese backgrounds (Hong-Nam and Leavell, 2007; Peacock and Ho, 2003). Thus, studies examining strategy use of Asian students in general, and Chinese students in particular, have been mixed; compensatory and metacognitive strategies have consistently been found to be used with the most frequency, and affective with the lowest frequency (Altan, 2004; Lee & Oxford, 2008).

It has also been reported that Asian students commonly use strategies involving rote learning and memorization (Politzer & McGroaty, 1985; Oxford, 1992, 1993). However, in some studies, memorization has ranked as low- to medium-use (Bedell & Oxford, 1996; Hong-Nam & Leavell, 2006; Woodrow, 2005; Yang, 1992). Finally, Yen and Chou (2009) reported that “Memory Trigger Instruction (MTI)” was successful in increasing memory strategy use. The researchers also noted MTI’s potential for boosting students’ overall English proficiency.

Learning context has been associated with differential memory strategy use among Asian learners. A recent case study conducted in an ESL setting contrasts with the earlier findings regarding LLS known to be characteristic of Chinese EFL learners. Li (2007) interviewed four graduate level Chinese students in the UK and showed that these learners’ self-directed LLS in a naturalistic environment favored cognitive and metacognitive strategies over others such as memory and compensation strategies because there was no perceived need for those strategies. In another ESL study, Hong-Nam & Leavell (2006) report low overall use of memory strategies among Asian students. Faulty measures and context have been offered as explanations for this finding, with other researchers challenging whether low use of memory strategies is truly
typical of the Asian students (Parks & Raymond, 2004; Vansteenkiste, Zhou, Lens, & Soenens, 2005). More research is needed to shed light onto these contradictory results and to explore Chinese strategy use in an ESL as compared with an EFL context.

**Russian Language Learning Strategies**

In comparison to Chinese speakers and other Asian groups, research using the SILL on students who speak Russian is not as extensive. Levine, Reves & Leaver (1996) created their own measures to investigate factors that influence strategy use differences between recent immigrants from the former Soviet Union (“newcomers”) and a mixed group that resided in Israel for over five years (“long-timers”) in an English class. They discovered that long-timers showed a preference for what the authors termed **traditional strategies** such as memorizing, grammar rules, writing words repeatedly, and verbatim translations. Long-timers preferred more social and compensatory strategies. The authors noted that the newcomers showed more signs of adapting to newer kinds of strategy use. Wintergerst & DeCapua (2001) found different results examining learning style preferences of ESL Russian-speaking students in a university setting, using the Perceptual Learning Style Preference Questionnaire and oral interviews. Their data showed that individual learning styles were more a reflection of individual preference than an overriding influence of their educational and cultural background. Also, the study found that Russian students favored kinesthetic and auditory learning styles.

Wintergerst, DeCapua, and Verna (2003) examined the learning modalities of 67 Russian EFL students, 53 Russian ESL students, and 46 Asian ESL students. The EFL students were enrolled in a university in St. Petersburg, and the ESL students were enrolled in two different New York City higher education institutions. The results suggest that members of the same cultural group are expected to share learning preferences to some degree. This was evident in the Russian ESL and EFL participants’ preference for the **group activity orientation** learning style in comparison to the **individual** and the **project orientation**. However, the Russian EFL students and Asian ESL students, more than Russian ESL students in the study displayed a collectivistic cultural influence by expressing preference to work in groups, demonstrating the complex interaction of culture and setting.

In exploring the use of learning strategies and their relations to effective learning among 15-year-olds, the Program for International Student Assessment (PISA) reports that students from the Russian Federation draw on memorization strategies more frequently than learners from most of the 26 countries which participated in the study (Artelt, Baumert, Julius-McElvany & Peschar, 2003). However, unlike most nationalities whose higher use of memorization is correlated with weaker performance in reading, the Russian participants’ performance in reading was strong. In fact, in a later study, Artelt (2005) found a positive relationship between instrumental motivation and reading literacy among Russian students. Artelt, et al. (2003) suggest that an
explanation for this may be the Russian students’ high rating in self-view of verbal and mathematical abilities, referred to as “self-concept” in the study, as well as their high rating in the category of “belief in their own efficacy” (p. 43). Also, in the study, the Russian students were among those who viewed both cooperative and competitive learning positively.

**Latino Language Learning Strategies**

Early research on different language groups portrayed language learners from Latino cultural backgrounds as exhibiting learning behaviors distinct from other cultures. McGroarty (1988) found Spanish-speaking learners of English to be more interactive, socializing, and comfortable to use the new language than other cultural groups considered. In a succeeding study, McGroarty (1989) reports that Spanish-speaking ESL students reported being more willing to use classroom and individual study strategies than the Chinese- and Japanese-speaking participants. However, the Spanish speakers had a significantly lower rating than the Chinese speakers on integrative motivation.

Reid (1995) found that ESL students’ learning modality preferences (visual, auditory, kinesthetic, tactile) are related to the choice of specific strategies for language learning and influenced by national origin. Reid noted that Latino students exhibited a global and field-dependent style preference and therefore chose particular learning strategies that were more social and compensatory. Similarly, Hudgens (1993) reported that Spanish-speaking middle and secondary students exhibited field dependency in their learning styles to a greater degree than English-speaking students. Two studies that used the SILL with Puerto Rican university students (Green, 1991; Green & Oxford, 1995) found that this population had a high use of metacognitive strategies, that females used strategies more than males, and that proficiency and strategy use were related. Griffiths (2003) confirmed some of these results using the SILL with the exception of any significant difference according to gender.

Calhoon, Al Otaiba, Greenberg, King, & Avalo (2006) showed that students of Latino origin responded favorably to a peer-assisted learning strategies program as compared with non-Hispanic students (See also Dunn, 2009). An additional study of Spanish-speaking English learners in a transitional bilingual setting, Saenz, Fuchs and Fuchs (2005), showed a positive impact of peer learning strategies for Spanish-speaking ELLs.

**Proficiency**

Most research shows that as L2 proficiency increases so does strategy use, with more proficient L2 learners using a wider array and higher frequency of LLS (Griffiths, 2003; Wu, 2008). A case study of twelve diaries from students in an English university indicated more successful students used strategies more frequently (Halbach, 2000). Results from studies that use SILL in a variety of contexts have shown a strong link between metacognitive strategies and proficiency (El-Dib, 2004; Oxford, 1995). Wu (2008) also found a
correlation between cognitive strategy use and English proficiency. However, some researchers have questioned this link (See Chen, 2009).

Sachiho (2007) administered the SILL to Japanese ESL students of varying proficiency levels; frequency of strategy use was consistent across different levels but strategy selection varied. Also, Yamamori, Isoda, Hiromori, & Oxford (2003) investigated the relationship between proficiency and effective strategies of Japanese middle school students and identified four types of learners, two high achieving (a selective-use group and an overall-developing group) and two low achieving (a low-awareness group and an unmotivated group). High achievers all used strategies frequently, but the nature of use depended on the level of awareness and motivation. These results are in line with the model of “adaptive learning” proposed by Woodrow (2006), which showed that strategy use and frequency were influenced by affect and motivation. Also linked to LLS is students’ knowledge of additional languages (Hong-Nam and Leavell, 2007).

**Gender**

Studies regarding gender influence on strategy use have been contradictory. Oxford (1995) reported greater strategy use for females as compared to males. However, she found there was no significant interaction between proficiency and gender. Goh and Kwah (1997) reported that female English language learners from the People’s Republic of China studying in the U.S. used more affective and compensation strategy categories than their male counterparts. However, Smidt and Hegelheimer (2004) claimed higher use in the area of cognitive strategies by female ESL learners at a U.S. university when compared with their male peers who used metacognitive strategies more frequently. In another study, all six strategy categories of the SILL were reported to be used to a significantly higher degree by female university students in Hong Kong (Peacock & Ho, 2003). In contrast, McMullen (2009) and Rahimi, Riazi, & Saif (2008) found no statistically significant difference in terms of strategy use between female and male university students in the Middle East. Furthermore, among Asian students, Lee and Oxford (2008) and Hong-Nam and Leavell (2006) found gender to be a poor predictor of strategy use.

**Learning Styles & Tasks**

Attention has been paid to task type and task difficulty in relation to strategy use (Hsiao & Oxford, 2002). Ikeda and Takeuchi (2000) investigated whether questionnaire data on language learning strategies presented to EFL learners would be affected by the presence or absence of actual tasks to do, as well as task difficulty. They found that all participants reported higher frequency of strategy use when presented with a questionnaire only. However, some strategies in the questionnaire data were shown to be affected to some extent by the difficulty level of the task. Oxford, Cho, Leung, & Kim (2004) conducted a follow-up study involving task-based strategy assessment, using a questionnaire
regarding reading strategies as well as easy and difficult reading tasks. Participants were college level US-based adult ESL learners from Asian, Central American, and South American home countries. The three conditions of the study involved filling out a questionnaire on reading strategies, doing an easy reading task, and doing a difficult reading task or doing no task. Also considered was the English proficiency level of participants. For lower proficiency learners, reported strategy use increased from no task to easy task to difficult task. This contrasted with the higher proficiency group for whom the opposite was the case; i.e., reported strategy use was greatest for the no task condition and declined with easy and then difficult tasks. The interaction effect between task and proficiency was statistically significant (Oxford et al., 2004, p. 23). The authors also discuss the issue of differential suitability of particular tasks for learners of different cultural backgrounds. They also explored task-based strategy assessment to conclude that there is a statistically significant interaction effect between task condition and proficiency level. (See also Ehrman, Leaver & Oxford, 2003; Macaro, 2006).

**Strategy Training**

Recent work on language strategies has focused on the potential of strategy training to support and enhance the second language acquisition process. Earlier research indicated that strategy training was not equally effective with students from all backgrounds. It was reported, for example, that Latino learners, compared with Asian language learners, responded more positively to strategy training (O’Malley, Chamot, Stewner-Manzanares, Russo, & Kupper, 1985). Another provocative issue is the claim that Chinese and other Asian learners are resistant to strategy instruction (Russo & Stewner-Manzanares, 1985). This was attributed in part to a cultural characteristic of Asians that learning is typically orchestrated by teachers rather than learners (Scarcella & Oxford, 1992; Chan, 1999; Woodrow & Shan, 2001). But He (2011) reports that metacognitive instruction was helpful for Chinese tertiary learners. However, it now appears that language and background interact with other relevant variables not only with social context but also with the particular teachers whom students encounter and their respective teaching and learning styles (Parks & Raymond, 2004).

Erhman Leaver, and Oxford (2003), in a review of the literature, describe successes and weaknesses of strategy instruction. Their suggestions for effective teaching of strategies recommend an approach which cannot be distant from learners’ preferred style and the task on hand. To date, L2 learning strategy instruction has had inconsistent success, as documented by Dornyei (1995) and Oxford (2001). One main reason for these mixed results might be that the students’ particular learning styles were not considered. Cohen’s approach (Cohen, 2010; Cohen, Pinilla-Herrera, Thompson, & Witzig, 2011) presents learners with alternative strategies and allows them to choose those that they perceive to be most helpful.
Other Factors

Additional variables have been investigated as potentially relevant to implementing language learning strategies. Researchers have not yet reached consensus as to whether differences in strategy use are due more to context, cultural/linguistic, ethnic, or religious background. For example, some researchers have argued that the context of instruction, especially differences between ESL and EFL settings, exert the greatest influence on strategy choice (Gao, 2006). In a recent study, Liyanage, Grimbeek, and Bryer (2010) investigated the relationship between ethno-religious affiliations and students’ choices of LLS. The authors found that religion more than ethnicity dictates the strategic behavior of students.

Parks and Raymond (2004), in a qualitative longitudinal study of Chinese MBA students learning English in Canada, show that social contacts may affect learners’ strategy use and development of new strategies. In addition, students were more apt to change their strategy use if they were able to understand how the changes could be useful in fulfilling a personal goal. The researchers suggest that “strategy use… emerges as a more complex, socially situated phenomenon, bound up with issues related to personal identity” (p. 384).

Other factors that have been mentioned as potentially important for strategy instruction and success are type of instruction, access to native speakers, perceived goal of instruction, motivation, educational discipline, and perceived power (Dornyei, 2001; McMullen, 2009; Peacock & Ho, 2003; Woodrow, 2005). An interaction effect between task and proficiency was found to be statistically significant by Oxford et al. (2004). More frequent use of strategies was reported when there was no task compared to when there was a task for all proficiency groups (Ikeda & Takeuchi, 2000).

Autonomy has also been indicated as important. A study of Chinese immigrants in Belgium revealed that experiences of autonomy as related to studying are conducive to learning (Vansteenkiste, et al., 2005). Moreover, the importance of self-regulation and self-efficacy has been noted (Tseng, Dornyei, & Schmitt, 2006). Additional variables of interest have included goals (Woodrow, 2006), English learning image and the importance of English (Lee & Oxford, 2008), teaching methods (Politzer, 1983; Oxford & Nyikos, 1988), and strategy awareness (Lee & Oxford, 2008).

METHODOLOGY

The present study explores the effects of cultural and linguistic background on LLS while controlling for context. Previous studies have examined cultural influences separately and have been critiqued for not taking into account the effect of context and proficiency, and studies of gender have been inconclusive. Therefore, we examine language learning strategy use in the context of an ESL college setting, with the aim of identifying the influence of cultural and linguistic differences and gender, if they exist.
Research Questions

What are the patterns in overall strategy use of students from 3 distinct language/culture backgrounds at 3 different proficiency levels?
R1: Are there differences in patterns of strategy use among ELLs from Chinese, Russian, and Latino backgrounds?
R2: Are there differences in patterns of strategy use among ELLs from Low-Intermediate, High-Intermediate, and Advanced Levels of proficiency?
R3: Are there any differences in patterns of strategy use by gender?

Participants

A total of 263 students (129 males and 134 females) enrolled in three sections of Low-Intermediate, High-Intermediate, and Advanced ESL at Urban U (pseudonym), a four-year college in the Northeastern United States participated in the study (See Table 1).

Table 1: Distribution of participants by proficiency level and cultural background

<table>
<thead>
<tr>
<th>Proficiency Level</th>
<th>Chinese</th>
<th>Russian</th>
<th>Latino</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Low-Intermediate</td>
<td>34</td>
<td>27</td>
<td>21</td>
<td>82</td>
</tr>
<tr>
<td>High-Intermediate</td>
<td>36</td>
<td>27</td>
<td>27</td>
<td>90</td>
</tr>
<tr>
<td>Advanced</td>
<td>28</td>
<td>28</td>
<td>35</td>
<td>91</td>
</tr>
<tr>
<td>Total</td>
<td>98</td>
<td>82</td>
<td>83</td>
<td>263</td>
</tr>
</tbody>
</table>

Participants’ average length of stay in the US is as follows: Chinese – 4.1 years; Russian – 4.6 years; Latino – 5.2 years. Average years of previous English study in the home country and in the US is: Chinese – 3.0 years at home country/3.4 years in the US; Russian – 4.5 years at home country/4.0 years in the US; Latino – 4.0 years at home country/4.2 years in the US. Students reported formal study of a third language as follows: 84% of Russian students (69 out of 82 students); 49% Latino students (41 out of 83); and only 9% of Chinese students (nine out of 98). However, some of the Chinese students (mostly Mandarin speakers) had been exposed informally to an additional Chinese language such as Cantonese or Fukienese. The participants represent a stratified, non-random sample of learners from different levels, identified through voluntary teacher and student participation in the project. Students were drawn from four to five classes at each proficiency level. Data were collected over a period of four weeks at Urban U. Students were advised that responses would not affect grades, their identities would be anonymous, and they were free to withdraw from the project at any time.
Placement Instruments

Students at Urban U were placed according to their scores on the Urban U Reading and Writing Assessment Batteries (RAB and WAB). The RAB is a norm-referenced measure to determine reading comprehension. Questions on the RAB emphasize general comprehension of facts, drawing inferences, and vocabulary understanding in context. Students answered multiple choice questions based on the reading of several passages within a 60-minute time frame.

The WAB is a holistically scored essay examination in which students choose from a fixed list of topics and write an essay within a time frame of one hour and 40 minutes. Results used for placement at different proficiency levels are as follows:

- Low-Intermediate (LI): Did not pass either RAB or WAB
- High-Intermediate (HI): Passed neither RAB nor WAB, but scored higher than Low-Intermediates, or continued from LI
- Advanced (AD): Passed RAB but did not pass WAB or continued from HI

Limitations

Participants were volunteers and constituted a non-random sample. Thus, this study must be characterized as quasi-experimental and generalization beyond the participants is not possible. In addition, as with all surveys that involve self-reports, there is no independent verification of the accuracy of students’ reported perceptions.

RESULTS

Descriptive statistics were computed by native language, proficiency level, and gender. Significant variation in strategy use across the SILL was computed for gender, proficiency level and language using MANOVA followed by post-hoc Scheffé. Gender was not found to be a significant variable; therefore, it is omitted from the discussion below.

Variation in Overall Strategy Use by Language Background

MANOVA results demonstrated significant relationships to language background for each of the six SILL categories. A summary of the MANOVA results of variation in use of individual strategies by language background is shown in Table 2.
Table 2: Comparison of Learning Strategy Use by Language Background

N (Chinese/Mandarin-speaking) = 98; N (Russian-speaking) = 82;
N (Spanish-speaking) = 83

<table>
<thead>
<tr>
<th>Dependent Variables</th>
<th>Chinese-Speaking M, SD</th>
<th>Russian-Speaking M, SD</th>
<th>Spanish-Speaking M, SD</th>
<th>Scheffé</th>
</tr>
</thead>
<tbody>
<tr>
<td>Memory</td>
<td>2.78* (.64)</td>
<td>3.04* (.52)</td>
<td>2.85 (.64)</td>
<td>R&gt;C</td>
</tr>
<tr>
<td>Cognitive</td>
<td>3.28*** (.53)</td>
<td>3.66*** (.39)</td>
<td>3.46 (.55)</td>
<td>R&gt;S&gt;C</td>
</tr>
<tr>
<td>Compensation</td>
<td>3.28 (.58)</td>
<td>3.48 (.66)</td>
<td>3.29 (.77)</td>
<td>n.s.</td>
</tr>
<tr>
<td>Metacognitive</td>
<td>3.53** (.68)</td>
<td>3.87** (.55)</td>
<td>3.77** (.67)</td>
<td>{S,R}&gt;C</td>
</tr>
<tr>
<td>Affective</td>
<td>2.89 (.65)</td>
<td>2.90 (.66)</td>
<td>3.03 (.73)</td>
<td>n.s.</td>
</tr>
<tr>
<td>Social</td>
<td>3.39 (.72)</td>
<td>3.57 (.68)</td>
<td>3.50 (.87)</td>
<td>n.s.</td>
</tr>
</tbody>
</table>

* p < .05  ** p < .01  *** p < .001

Significant relationships to language background were found for three SILL categories.

Memory: Russian students used strategies in the memory category significantly more than Chinese students, but there was no significant difference between the Russians and Latinos.

Cognitive: The Russian students used strategies in the cognitive category significantly more than the Chinese, but there was no significant difference between the Russian and Latinos.

Compensation: There was no significant difference among the three groups for this strategy category.

Metacognitive: The Chinese students used strategies in the metacognitive category significantly less than Russians and Latinos, but there was no significant difference between Russians and Latinos.

Affective/Social: There was no significant difference among the three groups.

Variation in Overall Strategy Use by Proficiency Level

MANOVA results demonstrated significant relationships of proficiency to each of the six SILL categories with no interactions. A summary of the means, SD’s, and results of Post hoc comparisons in the use of individual strategies by proficiency is shown in Table 3.
Table 3. *Comparison of Learning Strategy Use by Proficiency Level*

<table>
<thead>
<tr>
<th>Dependent Variables</th>
<th>Low-Intermediate $M, SD$</th>
<th>High-Intermediate $M, SD$</th>
<th>Advanced $M, SD$</th>
<th>Scheffé</th>
</tr>
</thead>
<tbody>
<tr>
<td>Memory</td>
<td>2.73** (.69)</td>
<td>2.86 (.61)</td>
<td>3.03** (.52)</td>
<td>AD&gt;LI</td>
</tr>
<tr>
<td>Cognitive</td>
<td>3.23*** (.58)</td>
<td>3.49*** (.47)</td>
<td>3.63*** (.44)</td>
<td>{AD, HI}&gt;LI</td>
</tr>
<tr>
<td>Compensation</td>
<td>3.21* (.65)</td>
<td>3.37 (.69)</td>
<td>3.47* (.65)</td>
<td>AD&gt;LI</td>
</tr>
<tr>
<td>Metacognitive</td>
<td>3.59** (.72)</td>
<td>3.70 (.69)</td>
<td>3.87** (.52)</td>
<td>AD&gt;LI</td>
</tr>
<tr>
<td>Affective</td>
<td>2.81** (.73)</td>
<td>2.89* (.69)</td>
<td>3.11** (.58)</td>
<td>AD&gt;LI</td>
</tr>
<tr>
<td>Social</td>
<td>3.22*** (.79)</td>
<td>3.49*** (.71)</td>
<td>3.76*** (.70)</td>
<td>AD&gt;{HI, LI}</td>
</tr>
</tbody>
</table>

* p < .05  ** p < .01  *** p < .001

All categories showed significant differences in strategy use for distinct proficiency levels, with higher strategy use indicating higher proficiency. Post hoc Scheffé tests (p<0.5) showed significant between-group differences on these measures as follows:

*Memory:* Advanced students used strategies in the memory category significantly more than Low-Intermediate students, but no significant difference was found between Advanced and High-Intermediate students.

*Cognitive:* Advanced students used strategies in the cognitive category significantly more frequently than either the High-Intermediate or Low-Intermediate students, who did not differ significantly from each other in use of this strategy.

*Compensation:* Advanced students used strategies in the compensation category significantly more than Low-Intermediate students; but no significant difference was found between Advanced and High-Intermediate students.

*Metacognitive:* Advanced students used strategies in the metacognitive category significantly more than Low-Intermediate students; but no significant difference was found between Advanced and High-Intermediate students.

*Affective:* Both Advanced and High-Intermediate students used strategies in the affective category significantly more than the Low-Intermediate students, but no significant difference existed between Advanced and High-Intermediate.

*Social:* Both Advanced and High-Intermediate students used strategies in the social category significantly more than the Low-Intermediate students, but no significant difference existed between Advanced and High-Intermediate.
DISCUSSION

Language/Culture

A focus on variation among different ethnic groups revealed that Russian students used significantly more strategies than the Chinese students in three categories (memory, cognitive, and metacognitive). The Latino students used significantly more strategies in only one category (metacognitive) than the Chinese students. There was no significant difference in strategy use between the Russian group and the Latino group.

Many possible explanations for the differences observed suggest themselves. Perhaps most prominent are the distinctions in educational backgrounds and experiences among the students from the different languages and cultures. These include how each individual is exposed and encultured to a particular educational subculture. Although all three groups have traditional elements in their experiences, the degree to which learning strategies have been explicitly taught and/or modeled is not consistent across groups. Yang (2007) found educational background to be responsible for the different strategic behavior of aboriginal and non-aboriginal students who had experience working in cooperative versus competitive environments respectively. Hong-Nam and Leavell (2007) found that differences in socio-educational learning, such as importance placed upon learning English played a significant role in LLS. In addition, they recognized that exposure to English in an English speaking country and years of formal instruction could also influence strategies. Furthermore, the high strategy use of Latino students may be attributed to the fact that over half of the participants were from Puerto Rico, which, according to Green and Oxford (1995) can be considered “a special kind of hybrid foreign/second language environment” (p. 291). [See also Ebsworth and Eisenstein (1997, 2000, & 2011).]

Also distinct among groups are years of English study in the home country and extent of prior language learning experience (Chinese: 3.0 years at home country/3.4 years in the US; Russian – 4.5/4.0 years; Latino – 4.0/4.2). Eighty four percent of Russian students reported having learned more than one foreign language, 49% of Latino students reported having learned more than one foreign language, but only 9% of Chinese students reported having learned more than one foreign language. However, subsequent conversations indicate that some Chinese participants did in fact know two or more Chinese languages. From a linguistic perspective, these alternative varieties would be classified as separate languages because they are not mutually intelligible. Nevertheless, Chinese participants often characterize their languages as dialects of a single language due to perceived cultural relationships and local traditions (Chiu, 2011).

One of our most interesting findings contrasts with the common belief that the Asian students tend to use more memory strategies than other individuals though as noted above, some others have reported similar results. Post-hoc discussions with several of our Chinese participants indicated that
despite the fact that they do use memory strategies, they do not use the particular kinds of memory strategies elicited by the SILL. The strategies they report using include: flash cards, vocabulary lists, repetition, memorization of whole texts, and matching English meaning with Chinese meaning. This is consistent with studies which have found that Asian students seem to use strategies involving rote learning and memorizing rules (Oxford, 1992, 1993). Similarly, Goh and Kwah (1997) report that memorization as measured by the SILL was used least frequently by the Chinese English learners in their sample, but that post-hoc interviews indicated use of rote memorization techniques. The reported use of memory and other strategies as indicated by the SILL may indeed be referent to how learners interpret the interface between their actual strategy use and their interpretation of SILL items (Bremner, 1999).

Proficiency Level

The findings regarding variation among different proficiency groups are consistent with previous SILL studies (Oxford, 1990; Yang, 2007). We found significant differences by proficiency level in students’ use of individual strategy categories on the SILL. Students with advanced English proficiency used significantly more strategies than Low-Intermediates in all six SILL categories and used more strategies than High-Intermediates in three of the six SILL categories. The High-Intermediate students used significantly more strategies than the Lower-intermediate students in only the cognitive category. We take note that our data indicated significant differences on all six strategy categories from low intermediate to advanced levels. However, only for social and cognitive strategies were differences significant between one set of contiguous levels; there were no significant differences among all three levels.

The fact that by the advanced level, memory, compensation, and metacognitive strategies had increased from the low intermediate level may indicate that cognitive load limits such strategy use when interlanguage use and retrieval is more difficult. Once greater L2 proficiency has been achieved, memory strategies become more potentially useful. This is likely to be a progressive development, which would explain why there were no significant differences between contiguous proficiency levels. Support for this view is offered by Li (2007). In a study of four Chinese graduate students, the least proficient student was found to use a wider variety of strategies and the two students ranking 2nd and 3rd in proficiency demonstrated higher increase in strategy use over time. However, Sachiho (2007) found metacognitive strategies were used more extensively by advanced and beginner learners of Japanese than by intermediate learners. In contrast, Hong-Nam and Leavell, (2006) found that intermediate level learners used LLS more frequently than both advanced and beginner level learners.
Gender

Our findings did not reveal a significant difference between males and females. This contrasts with results reported in Oxford (1995), showing greater strategy use for females although the range of difference was modest. Peacock and Ho (2003), and Smidt and Hegelheimer (2004) also offer support of higher female strategy use. Nevertheless, more recent studies support a lack of significant difference in the strategic behavior of male and female participants (McMullen, 2009; Lee & Oxford, 2008; Rahimi et al., 2008). The discrepancy might be attributed to the varying effects of context such as culture, ESL vs EFL, and the learning environment.

Further Insights

A final caveat is in order. Although variation by proficiency and language background were found to be significant in our data, all means fell between 2.5 and 3.4, defined by Oxford (1990) as medium use. Perhaps given that our participants were all in a university setting, they did not represent a wide cross section of learners from the three language backgrounds and proficiency levels that exist in other parts of their communities. They are likely as a group to have developed more language awareness than other learners with different educational backgrounds who may have had less exposure to metalinguistic constructs and abstract thinking. Furthermore, exhibiting similar strategic behavior among participants can be supported by the fact that the classroom context plays a crucial role in constructing shared goals which greatly influence learners’ strategic use of language (Takeuchi, Griffiths & Coyle, 2007). Within a classroom community, shared goals are perceived by students in teaching methods, peer communication, and culture of the classroom. Hence, it is reasonable to infer that the role of the learning situation has impacted our results so that smaller individual differences tied to culture and proficiency level have been minimized by the greater forces within the culture of the classroom.

CONCLUSION

By controlling for context, we have been able to show that proficiency and cultural/linguistic group can influence language strategy use for Chinese, Russian, and Latino students in a second language university environment. Perhaps the great range of findings in literature in relation to proficiency level and strategy use can be explained by context along with individual variables such as self-esteem, risk-taking, tolerance of ambiguity, and learning styles (Scarcella & Oxford, 1992).

Our lack of findings on gender is suggestive of the possibility that gender interacts with other variables such as socio-economic status and/or language/culture as well as other contextual factors. Another area to explore relates to our findings regarding the memory strategy. In addition to the possibility that our results were at least in part an artifact of the SILL, we must
consider the role of cognitive load in using strategies when interlanguage is less sophisticated and greater effort must be expended in memorization.

The fact that we found increases in strategy use for contiguous proficiency levels only for two strategies suggests the need for longitudinal studies to determine whether the development of some strategy use is generally progressive whereas the development of particular strategies might be linked to the achievement of certain milestones. The influence of years of EFL study in the home country and amount of exposure to English in a second language setting in both formal and informal environments should be investigated. An additional provocative issue is the influence of learners’ experience with additional languages on LLS. In our study we consider this a background variable. As noted above, our Chinese participants reported less strategy use and the least amount of exposure to a foreign language. In researching the language backgrounds of Chinese students, clarity is needed regarding the status of vernacular languages that may be perceived as “dialects” in the Chinese context but are actually separate languages, inasmuch as they are not mutually intelligible with Mandarin and/or each other.

Although it has been suggested that strategy training can improve learners’ acquisition and use of the second language, Rossiter (2003) reports on a Canadian study of ESL learners from varied first language backgrounds for whom affective strategy training did not affect acquisition when the experimental group was compared with a similar group of students who did not receive this training. However, it is not clear what other activities and modeling may have occurred in the experimental and control groups. The differences in our research show that a more targeted approach considering the learners’ native culture might be more successful. Macaro (2006) reports that language learner strategy training could contribute to more positive motivation as learning evolves in that successful strategy use will result in greater success as language challenges are encountered and met. A provocative approach called PALS: (Peer Assisted Learning Strategies) has been suggested by Dunn (2009). Future research should continue to explore findings in the literature and study innovative pedagogical techniques.

NOTE

1. Although Oxford has revised her strategy inventory, our research was begun several years ago. Also, using the older version has the advantage of making our work comparable to many other studies done on populations analogous to our own.
REFERENCES


AUTHORS

Miriam Eisenstein Ebsworth, PhD. Director of Doctoral Programs in Multilingual Multicultural Studies, NYU-Steinhardt, New York, NY. Specializations: applied linguistics, L2 writing, intercultural pragmatics.


Nikta Razavi. PhD student, Department of Languages, Cultures, and Literacies, Simon Fraser University, Vancouver, Canada. Specializations: foreign language learning, content-based language instruction.

Frequency versus Importance: 
Language Learning Strategy Use in the EFL Classroom

ALI SIDKI AğAZADE 
Eastern Mediterranean University

GÜLSEN MUSAYEVA VEFALI 
Eastern Mediterranean University

In recent decades, there has been a plethora of studies on language learning strategies (LLS hereafter). However, the research to date has mostly examined students’ views on LLS, and there are few studies reflecting teachers’ views. In contrast, this study surveyed 257 EFL students and 12 teachers to explore their views on the frequency and importance of language learning strategy use at a tertiary level in Northern Cyprus. The study used a new inventory (Griffiths, 2003) to elicit and compare the respondents’ views on strategy use. The statistical analysis identified the use of 11 core strategies by the EFL students. Further, their inadequate selection and use of strategies was related to management of learning, interaction, development in the target language, and a difference with their teachers’ views on the importance of strategy use. Overall, this study revealed a promising degree of agreement between the EFL students’ and teachers’ survey reports, which can have important implications for the context of instruction.

INTRODUCTION

In recent decades, there has been a plethora of studies on language learning strategies (LLS) conducted within the framework of second language acquisition and cognitive psychology (Ellis, 1995). These studies have shown the significance of LLS for the current concern with the language learner (Tarone & Yule, 1995) and learner characteristics (Cohen & Dörnyei, 2002), in addition to a dire need for effective ways of strategy application in language pedagogy. The pioneering works by Rubin (1975), Stern (1975), and Naiman, Fröhlich, Stern and Todesco (1978) provided valuable insights into characteristics, strategies, and behaviors of the “good language learner.” Studies on “unsuccessful language learners” (Porte, 1988; Vann & Abraham, 1990)
offered new insights into strategy application in different contexts. However, these studies recognized that “the successful or good language learner, with predetermined overall characteristics, does not exist” (Naiman et al., 1978, p. 225). Moreover, they acknowledged that learner variables can potentially influence strategy use (Naiman et al., 1978; Rubin, 1975).

If research strategies were once regarded as “the techniques or devices which a learner may use to acquire knowledge” (Rubin, 1975, p. 43), strategies are currently viewed more comprehensively as “specific action taken by the learner to make learning easier, faster, more enjoyable, more self-directed, more effective, and more transferable to new situations” (Oxford, 1990, p. 8). However, the definitions proposed for language learning strategies are not without problems (Ellis, 1995, pp. 532-533). Various schemes for strategy classification were based primarily on their direct or indirect involvement in language learning (O’Malley, Chamot, Stewner-Manzanarac, Kupper, & Russo, 1985a; Oxford, 1990; Rubin, 1981). Subsequent studies on language learning strategies reported that more successful language learners appeared to extensively use both metacognitive strategies (O’Malley et al., 1985a) and cognitive strategies (Ehman & Oxford, 1995). Furthermore, higher proficiency was associated with practice strategies (Bialystok, 1981) or an overall higher frequency of strategy use (Green & Oxford, 1995).

There is still a lack of consensus in the field regarding various issues related to language learning strategies (Dörnyei & Skehan, 2003; O’Malley et al., 1985a); and McDonough (2006) contended that “even after 30 years of research, we don’t have a fully articulated body of theory which answers all the questions we want to ask” (p. 64). For instance, whether LLS are “teachable” (Oxford & Nyikos, 1989, p. 291) remains a controversial issue because the related studies provided both promising findings (Chamot & Rubin, 1994; Cohen, 1998; Wenden, 1991) and unfavorable results (O’Malley et al., 1985b; Wenden, 1987). However, the research to date has suggested that the use of effective learning strategies can contribute to language development and that strategy training can improve performance (Cohen, 1999; O’Malley & Chamot, 1990; Oxford & Nyikos, 1989). Ellis (1995) summarized the pertinent research findings and concluded: “In the main, strategies contribute indirectly to learning by providing learners with data about the L2, which they can then process. However, some strategies may also contribute directly…” (p. 533).

Regarding strategy training, certain limitations have been noted in that strategy instruction is not considered to be the same as language instruction. Another area of concern is what kind of learner strategy instruction intends to train: one who is genuinely autonomous, or one who is trained to operate certain strategies (McDonough, 2006, p. 64). Moreover, various factors might be attributed to the unfavorable results of learner training (Rees-Miller, 1993). Ellis (1995) noted that, “The ways in which learners differ are potentially infinite as they reflect the whole range of variables relating to the cognitive, affective, and social aspects of a human being” (p. 35). Therefore, LLS are thought to interact with a host of learner-specific characteristics (Gardner & MacIntyre, 1993; Oxford, 1990).
Given the abundance of proposed definitions of LLS and the lack of their systematic classification, O’Malley and Chamot (1990, p.13) emphasized the necessity of eliciting “empirical data from language learners” for pedagogic understanding of the role of strategies in second language acquisition. The research to date has mostly examined students’ views on LLS, and there are few studies reflecting the teachers’ related views (Griffiths & Parr, 2001; Griffiths, 2007). It is noteworthy that “teacher practices and perceptions are critically important since they have the potential to influence the effectiveness of the teaching/learning process” (Griffiths, 2007, p. 91). An understanding of events in the language classroom, therefore, requires examination of both teachers’ and learners’ voices (Nunan, 1996, p. 55).

In this regard, Griffiths (2007) examined both students’ and teachers’ perceptions by administering two versions of the English Language Learning Strategy Inventory (ELLSI) to international students and their instructors in New Zealand. The ELLSI is an original tool based on the input from language learners enrolled in a Study Skills class. In view of the difficulties of “dividing up long, difficult-to-manage lists of strategies” and to make “the language learning strategy concept much more manageable as a teaching tool and therefore more useful in a teaching/learning situation” (Griffiths, 2003, p. 200), Griffiths did not categorize, but rather amalgamated strategies and examined the frequency of their use by all low and high level language learners. Further, as it is problematic for language teachers to report on the frequency of strategy use by learners (Griffiths & Parr, 2001), the teachers in the study were requested to rate the importance of language learning strategy use for their students. Whereas seven strategies were reported as being used highly frequently by all learners, 17 of 32 strategies were regarded as very important by their teachers. It is noteworthy that language classroom research has emphasized “the existence of a gap between the way teachers and learners ‘see’ the classroom and all that occurs within it” (Block, 1996, p. 168). However, somewhat in contrast to the findings of the related research (Griffiths & Parr, 2001; Willing, 1989, cited in Griffiths, 2007), there was 71% agreement between the LLS reported as being used highly frequently by the international language learners and those ascribed the most important by their instructors in the instructional context.

In response to Griffiths’ appeal (2007) to language educators to further explore their students’ application of strategies, the present study employed the new survey tool with students and teachers in an EFL context. The study adopted Griffiths’ (2007, p. 91) definition of strategies as “activities consciously chosen by learners for the purpose of regulating their own language learning.” The survey explored reports from EFL students and their teachers and focused on the amount of agreement between the strategies reported as being used highly frequently by the students and those rated as highly important by their teachers. The study addressed the following research questions:

1. What language learning strategies did the EFL students report as using highly frequently in their studies?
2. What language learning strategies did the EFL instructors regard as highly important for their students?
3. How do the EFL students’ and their teachers’ survey reports compare?

The assumption was that the survey findings could potentially inform instructional practices in the instructional context.

**METHOD**

**Participants**

The study was conducted at the tertiary level in Northern Cyprus. After receiving permission to conduct research, a written consent to participate in the study was obtained from a total of 257 EFL students and 12 instructors, who were assigned to the EFL classes at the time of the study. The student participants came from a variety of English language learning backgrounds, and they also varied in terms of the demographic variables of age and gender. The ages of the respondents ranged from 17 to 26 years, with the majority averaging 18 years; 73.2% of the respondents were female, and 26.8% were male. Most (56%) of the students indicated that the duration of their English language learning was from 10 to 12 years. The teachers in the study also varied in gender and their language teaching experiences. Of the 12 participants, six were female and six were male. Years of professional experience were as follows: Two of the teachers had almost 10 years, six teachers had from 11 to 20 years, two from 21 to 25 years, and another two from 35 to 40 years.

**Data Collection**

Two versions of the English Language Learning Strategy Inventory (Griffiths, 2003), each comprising 32 items on a 5-point Likert scale, were administered to all students to elicit their reports on the frequency of strategy use (from 1=never/almost never to 5=always/almost always). Similarly, the teachers were asked about the importance of strategy use (from 1=least important to 5=most important) for their students. The EFL students completed the survey in class, whereas their teachers completed the survey in their offices at their convenience; importantly, some respondents provided qualitative insights as well.

**Data Analysis**

The quantitative reports from the EFL students and teachers were entered into Excel and SPSS, and the data collected from both the students and teachers were initially analyzed for reliability. Further, a frequency average was identified for each strategy item, the highly frequently used strategies (M=3.5 and above) (Griffiths, 2003) were counted, and the overall frequency average for the EFL students was determined. An importance average was also identified for
each strategy item, the most important strategies (M=3.5 and above) were calculated, and the overall importance average for the EFL teachers was determined. Finally, the students’ and teachers’ survey reports were compared for a rate of correspondence between frequency and importance of language learning strategy use in the instructional context.

RESULTS AND DISCUSSION

EFL Students’ Survey Reports

The Cronbach alpha reliability coefficient of the students’ version of the strategy inventory in this study was .8460; the overall average of the EFL students’ frequency of strategy use was M=3.32. The students (n=257) reported using 11 strategies highly frequently (averaging 3.5 and above). The descriptive statistics are presented in Table 1.

Table 1: Average Reported Frequency of Strategy Use for the EFL Students

<table>
<thead>
<tr>
<th>ELLSI</th>
<th>Statement</th>
<th>Mean</th>
<th>SD</th>
</tr>
</thead>
<tbody>
<tr>
<td>2</td>
<td>Learning from the teacher</td>
<td>4.21</td>
<td>.787</td>
</tr>
<tr>
<td>1</td>
<td>Doing homework</td>
<td>4.19</td>
<td>.879</td>
</tr>
<tr>
<td>26</td>
<td>Learning from mistakes</td>
<td>4.15</td>
<td>.985</td>
</tr>
<tr>
<td>5</td>
<td>Using a computer</td>
<td>4.14</td>
<td>1.007</td>
</tr>
<tr>
<td>8</td>
<td>Listening to songs in English</td>
<td>3.98</td>
<td>1.128</td>
</tr>
<tr>
<td>25</td>
<td>Listening to native speakers of English</td>
<td>3.95</td>
<td>1.131</td>
</tr>
<tr>
<td>24</td>
<td>Trying to think in English</td>
<td>3.91</td>
<td>1.019</td>
</tr>
<tr>
<td>29</td>
<td>Watching movies in English</td>
<td>3.88</td>
<td>1.167</td>
</tr>
<tr>
<td>13</td>
<td>Using a dictionary</td>
<td>3.85</td>
<td>.990</td>
</tr>
<tr>
<td>16</td>
<td>Consciously learning new vocabulary</td>
<td>3.75</td>
<td>.937</td>
</tr>
<tr>
<td>6</td>
<td>Watching TV in English</td>
<td>3.51</td>
<td>1.136</td>
</tr>
<tr>
<td>27</td>
<td>Spending a lot of time studying English</td>
<td>3.47</td>
<td>1.072</td>
</tr>
<tr>
<td>3</td>
<td>Learning in an English environment</td>
<td>3.38</td>
<td>1.186</td>
</tr>
<tr>
<td>15</td>
<td>Studying English grammar</td>
<td>3.31</td>
<td>1.073</td>
</tr>
<tr>
<td>18</td>
<td>Talking to native speakers of English</td>
<td>3.30</td>
<td>1.186</td>
</tr>
<tr>
<td>7</td>
<td>Revising regularly</td>
<td>3.27</td>
<td>.970</td>
</tr>
<tr>
<td>28</td>
<td>Making friends with native speakers</td>
<td>3.22</td>
<td>1.344</td>
</tr>
<tr>
<td>22</td>
<td>Not worrying about mistakes</td>
<td>3.12</td>
<td>1.275</td>
</tr>
<tr>
<td>12</td>
<td>Talking to other students in English</td>
<td>3.12</td>
<td>1.022</td>
</tr>
<tr>
<td>31</td>
<td>Listening to the radio in English</td>
<td>3.10</td>
<td>1.383</td>
</tr>
<tr>
<td>4</td>
<td>Reading books in English</td>
<td>3.09</td>
<td>1.019</td>
</tr>
<tr>
<td>30</td>
<td>Learning about the culture of English speakers</td>
<td>3.04</td>
<td>1.187</td>
</tr>
<tr>
<td>17</td>
<td>Keeping a language learning notebook</td>
<td>3.03</td>
<td>1.297</td>
</tr>
<tr>
<td>21</td>
<td>Pre-planning language-learning activities</td>
<td>3.02</td>
<td>1.081</td>
</tr>
<tr>
<td>23</td>
<td>Using a library</td>
<td>3.02</td>
<td>1.059</td>
</tr>
<tr>
<td></td>
<td>Activity</td>
<td>Frequency</td>
<td>Average</td>
</tr>
<tr>
<td>---</td>
<td>----------------------------------------------</td>
<td>-----------</td>
<td>---------</td>
</tr>
<tr>
<td>14</td>
<td>Reading newspapers in English</td>
<td>2.98</td>
<td>1.032</td>
</tr>
<tr>
<td>20</td>
<td>Controlling schedules so that English study is done</td>
<td>2.84</td>
<td>1.052</td>
</tr>
<tr>
<td>19</td>
<td>Taking note of the language in the environment</td>
<td>2.76</td>
<td>1.258</td>
</tr>
<tr>
<td>9</td>
<td>Using language learning games</td>
<td>2.71</td>
<td>1.194</td>
</tr>
<tr>
<td>11</td>
<td>Listening to music while studying</td>
<td>2.59</td>
<td>1.332</td>
</tr>
<tr>
<td>10</td>
<td>Writing letters in English</td>
<td>2.53</td>
<td>1.206</td>
</tr>
<tr>
<td>32</td>
<td>Writing a diary in English</td>
<td>1.95</td>
<td>1.249</td>
</tr>
</tbody>
</table>

Overall average level of frequency 3.32
Number of high frequency items 11

The 11 highly frequently used strategies appear to constitute an essential component of the students’ repertoire of strategies and can be regarded as core strategies in this study. Most of these strategies appearing in the high frequency list in the present study are indispensable in any instructional context, specifically learning from the teacher (Item 1), doing homework (Item 2), learning from mistakes (Item 3), listening to native speakers of English (Item 25), and using a dictionary (Item 13). Further, other core strategies were related to resources, such as using a computer (Item 5), listening to songs in English (Item 8), watching movies in English (Item 29), and watching TV in English (Item 6). This suggests that the students routinely used these resources, which can be effectively used in their education or self-study. Another promising finding was that the strategies of listening to native speakers (Item 25) and trying to think in English (Item 24) appeared in the high frequency list, which seems to indicate that the EFL students were aware of the significance of exposure to and adequate expression in the target language. Further, the scores for the strategies of using a dictionary (Item 13) and consciously learning new vocabulary (Item 16) indicate their concern with development in the target language.

These findings indicate the EFL students’ overall awareness of the learning process, which is considered by Ellis (1999, p. 546) to be one of the aspects of successful language learning, in addition to indicating concern for language form and communication. However, as noted by McDonough (2006, p. 66), what actually matters is “how” these students use language learning strategies, “when” they use them, “how” they decide on the effectiveness of these strategies or their results, “how” they relate the strategies in use to what they were trying to learn, and whether it is helpful “to take over some of the decision making for their own language learning.”

Some of the comments by the EFL students provided interesting insights related to their learning experiences and strategy use in relation to taking note of and learning in the environment, learning from mistakes and
revising regularly, spending a lot of time studying English, worrying about mistakes, studying grammar, and some lack of motivation, as illustrated below:

- For language learning, it is important to be aware of what is happening around one so as to be conscious about language. And I am interested in my environment… I am using all my opportunities to learn new things about language.
- …sometimes I have the fear of making mistakes. Obviously, this is a problem for the most of the learners [sic]. Another reason is that I fed up [sic] the some aspects of language because of redoing again and again for a long time. That is again is [sic] the most encountered problem among the students.
- Since my childhood, I am very interested in language learning…. Due to the lack of practice, I am a learner who is afraid of speaking and making mistakes. But I think, I can analyze the speech of others as well as my speech.
- …when I started this department, I did not have very [sic] knowledge about English as much as others, but I studied (and study) as much and I am at good [sic]now….
- …in my opinion, practicing the language is more helpful than studying grammar rules all the time.
- I believe I am a good language learner in my own way but I do believe that I lack a bit of motivation.

An area of concern in the present study is the inadequate overall average of strategy use (M=3.3) reported by the EFL students; this might reflect their general language proficiency level. These experienced students were not associated with a high frequency of strategy use, which contrasts with Green and Oxford’s findings (1995). Ellis (1995) claimed that, “Different kinds of learning strategies may contribute to different aspects of L2 proficiency” (pp. 555-556). Moreover, Cohen and Dörnyei (2002) observed that learners’ “use of what is ostensibly a single strategy may actually represent a continual shifting or ‘dance’ from one of these categories to another” (p. 181). However, most of the core strategies used by the EFL students in this study would not appear to be sufficient for their studies; these results are not in line with the findings of Ehrman and Oxford (1995), O’Malley et al. (1985a), and Bialystok (1981), who reported the use of cognitive, metacognitive, and functional strategies by proficient language learners.

Although McDonough argued for reciprocity in the strategy use-proficiency relation (2006, p. 66), the EFL students’ survey indicated that they need a better repertoire of strategies and competence in their use. Overall, it seems reasonable to suggest that the students in the EFL instructional context need to develop their awareness of strategies and their use, especially in relation to management of learning, interaction, and development in the target language. Nevertheless, McDonough (2006) emphasized that if strategies constitute an essential component of language learning, there is no need "to teach them
because we all go through a development phase and, by and large, we’ll develop the ones we use” (p. 64).

A comparison of these findings with those of Griffiths (2003) suggested that the EFL students in this study used more core strategies than the ESL learner (11 compared to 7), but there was a similar overall average level of frequency, M=3.32 and M=3.1, respectively. Further, both the EFL and ESL learners used 10 strategies with almost the same degree of frequency; these are primarily strategies related to management of learning (Items 3, 7, 19, and 20) and interaction (Items 18 and 25). These comparative findings suggest that the awareness and use of certain strategies are not context-specific. Further, the EFL students reported using less frequently than the ESL learners strategies such as talking to other students in English (Item 12), which is essential for their target language practice and overall communicative competence. In contrast, the EFL learners used the strategy making friends with native speakers (Item 28) more frequently. This difference might be accounted for by the nature of the EFL context because it is more natural for students with similar backgrounds to interact in their L1, even though they might seek opportunities for practice with native speakers. Further, the reported frequency of learning about the culture of English (Item 20) in the present study seems to indicate that the EFL students were overall more motivated in their studies than the ESL learners in Griffiths’ study (2003). This might have affected their choice of strategies because, as Oxford and Nyikos (1989) discuss, motivation potentially influences language learners’ strategy selection (p. 294). Moreover, our finding can also be accounted for by the research that has acknowledged interaction of learner variables with language learning strategies (Gardner & MacIntyre, 1993; Naiman et al., 1978; Oxford, 1990; Rubin, 1975).

Overall, the EFL students in the present study used resource related strategies more frequently than the ESL learners in Griffiths’ study (2007). This finding can be accounted for by the research findings that strategy use may vary depending on the type, EFL or ESL, of instructional setting (Chamot et al., 1987; O’Malley et al., 1985a). However, as Ellis (1995) noted, “It is likely, though, that it is not so much macro-differences (such as the FL/SL distinction) as micro-differences to do with the specific learning settings in classrooms that have the greater effect on strategy use” (p. 544).

EFL Teachers’ Survey Reports

The Cronbach alpha reliability coefficient of the teachers’ version (n=12) of the strategy inventory in the present study was .9468; the overall average of importance of LLS use was M=3.87. According to the EFL teachers, of the 32 strategies, 30 were considered highly important for their students (averaging 3.5 and above). These descriptive statistics are illustrated in Table 2.
Table 2: Average Reported Importance of Strategy Use for the EFL teachers

<table>
<thead>
<tr>
<th>ELLSI</th>
<th>Statement</th>
<th>Mean</th>
<th>SD</th>
</tr>
</thead>
<tbody>
<tr>
<td>26</td>
<td>Learning from mistakes</td>
<td>4.58</td>
<td>.669</td>
</tr>
<tr>
<td>4</td>
<td>Reading books in English</td>
<td>4.58</td>
<td>.900</td>
</tr>
<tr>
<td>2</td>
<td>Learning from the teacher</td>
<td>4.42</td>
<td>.669</td>
</tr>
<tr>
<td>18</td>
<td>Talking to native speakers of English</td>
<td>4.33</td>
<td>.888</td>
</tr>
<tr>
<td>3</td>
<td>Learning in an English environment</td>
<td>4.33</td>
<td>.778</td>
</tr>
<tr>
<td>13</td>
<td>Using a dictionary</td>
<td>4.25</td>
<td>.866</td>
</tr>
<tr>
<td>1</td>
<td>Doing homework</td>
<td>4.25</td>
<td>.622</td>
</tr>
<tr>
<td>31</td>
<td>Listening to the radio in English</td>
<td>4.17</td>
<td>.577</td>
</tr>
<tr>
<td>25</td>
<td>Listening to native speakers of English</td>
<td>4.17</td>
<td>.937</td>
</tr>
<tr>
<td>28</td>
<td>Making friends with native speakers</td>
<td>4.08</td>
<td>.515</td>
</tr>
<tr>
<td>14</td>
<td>Reading newspapers in English</td>
<td>4.08</td>
<td>1.084</td>
</tr>
<tr>
<td>10</td>
<td>Writing letters in English</td>
<td>4.00</td>
<td>.603</td>
</tr>
<tr>
<td>12</td>
<td>Talking to other students in English</td>
<td>4.00</td>
<td>.739</td>
</tr>
<tr>
<td>16</td>
<td>Consciously learning new vocabulary</td>
<td>3.92</td>
<td>1.165</td>
</tr>
<tr>
<td>29</td>
<td>Watching movies in English</td>
<td>3.92</td>
<td>.669</td>
</tr>
<tr>
<td>22</td>
<td>Not worrying about mistakes</td>
<td>3.83</td>
<td>.718</td>
</tr>
<tr>
<td>24</td>
<td>Trying to think in English</td>
<td>3.83</td>
<td>.937</td>
</tr>
<tr>
<td>23</td>
<td>Using a library</td>
<td>3.83</td>
<td>1.030</td>
</tr>
<tr>
<td>17</td>
<td>Keeping a language learning notebook</td>
<td>3.83</td>
<td>.577</td>
</tr>
<tr>
<td>6</td>
<td>Watching TV in English</td>
<td>3.83</td>
<td>.718</td>
</tr>
<tr>
<td>7</td>
<td>Revising regularly</td>
<td>3.75</td>
<td>1.055</td>
</tr>
<tr>
<td>21</td>
<td>Pre-planning language-learning activities</td>
<td>3.67</td>
<td>.888</td>
</tr>
<tr>
<td>19</td>
<td>Taking note of the language in the environment</td>
<td>3.67</td>
<td>.888</td>
</tr>
<tr>
<td>8</td>
<td>Listening to songs in English</td>
<td>3.67</td>
<td>.778</td>
</tr>
<tr>
<td>32</td>
<td>Writing a diary in English</td>
<td>3.58</td>
<td>.900</td>
</tr>
<tr>
<td>20</td>
<td>Controlling schedules so that English study is done</td>
<td>3.58</td>
<td>.793</td>
</tr>
<tr>
<td>15</td>
<td>Studying English grammar</td>
<td>3.58</td>
<td>1.084</td>
</tr>
<tr>
<td>5</td>
<td>Using a computer</td>
<td>3.58</td>
<td>.996</td>
</tr>
<tr>
<td>27</td>
<td>Spending a lot of time studying English</td>
<td>3.50</td>
<td>1.243</td>
</tr>
<tr>
<td>9</td>
<td>Using language learning games</td>
<td>3.50</td>
<td>1.000</td>
</tr>
<tr>
<td>30</td>
<td>Learning about the culture of English speakers</td>
<td>3.25</td>
<td>1.138</td>
</tr>
<tr>
<td>11</td>
<td>Listening to music while studying</td>
<td>2.33</td>
<td>1.155</td>
</tr>
</tbody>
</table>

Overall average level of importance 3.87
Number of most important items 30
The EFL instructors in this study, therefore, appear to be highly aware of the importance of strategy use for their students, which is at variance with the findings of previous studies (O’Malley et al., 1985a). Nevertheless, our findings are in line with related findings by Griffiths (2003). The following insights from the EFL instructors are very illustrative in this regard:

- I would like to emphasize that a good language learner should be involved in all of these activities all at the same time.
- I believe there is no best strategy for a group of students. There can be a best strategy (or the most important…) for an individual student, but only the student himself/herself can decide on that strategy (not the teacher).

Interestingly, the ESOL teachers in Griffiths’ study (2003) ascribed high importance to fewer strategies (17 strategies on the strategy inventory), with the overall average level of importance being slightly lower (M=3.6) than in the present study. Further, three matches can be identified within the top 5 highly important strategies of the EFL and ESOL teachers’ survey reports: learning from the teacher (Item 2), learning in an environment where the language is spoken (Item 3), and reading books in English (Item 4). Additionally, the averages for 7 strategies in both studies nearly match: Items 26, 16, 22, 17, 7, 9, and 30. However, unlike in Griffiths’ study (2003), the EFL teachers in the present study rated 18 strategies as more important; these are primarily related to resources and development in the target language. In contrast, 9 strategies, which are primarily related to interaction in the target language, were considered somewhat less important. These comparative results suggest differences in teachers’ perceptions of the degree of importance ascribed to the related strategies for their students in different EFL and ESL instructional contexts.

**The EFL Students’ and Teachers’ Survey Reports**

A comparison of the average frequency and importance scores in the EFL context suggests a high degree of agreement between the students’ and teachers’ survey reports: the teachers regarded all 11 core strategies as highly important for their students, as illustrated in Table 3.
### Table 3: Average Reported Frequency/Importance of Strategy Use in the EFL Context

<table>
<thead>
<tr>
<th>ELLSI</th>
<th>Statement</th>
<th>Students</th>
<th>Teachers</th>
</tr>
</thead>
<tbody>
<tr>
<td>2</td>
<td>Learning from the teacher</td>
<td>4.21</td>
<td>4.42</td>
</tr>
<tr>
<td>1</td>
<td>Doing homework</td>
<td>4.19</td>
<td>4.25</td>
</tr>
<tr>
<td>26</td>
<td>Learning from mistakes</td>
<td>4.15</td>
<td>4.58</td>
</tr>
<tr>
<td>5</td>
<td>Using a computer</td>
<td>4.14</td>
<td>3.58</td>
</tr>
<tr>
<td>8</td>
<td>Listening to songs in English</td>
<td>3.98</td>
<td>3.67</td>
</tr>
<tr>
<td>25</td>
<td>Listening to native speakers of English</td>
<td>3.95</td>
<td>4.17</td>
</tr>
<tr>
<td>24</td>
<td>Trying to think in English</td>
<td>3.91</td>
<td>3.83</td>
</tr>
<tr>
<td>29</td>
<td>Watching movies in English</td>
<td>3.88</td>
<td>3.92</td>
</tr>
<tr>
<td>13</td>
<td>Using a dictionary</td>
<td>3.85</td>
<td>4.25</td>
</tr>
<tr>
<td>16</td>
<td>Consciously learning new vocabulary</td>
<td>3.75</td>
<td>3.92</td>
</tr>
<tr>
<td>6</td>
<td>Watching TV in English</td>
<td>3.51</td>
<td>3.83</td>
</tr>
<tr>
<td>27</td>
<td>Spending a lot of time studying English</td>
<td>3.47</td>
<td>3.50</td>
</tr>
<tr>
<td>3</td>
<td>Learning in an English environment</td>
<td>3.38</td>
<td>4.33</td>
</tr>
<tr>
<td>15</td>
<td>Studying English grammar</td>
<td>3.31</td>
<td>3.58</td>
</tr>
<tr>
<td>18</td>
<td>Talking to native speakers of English</td>
<td>3.30</td>
<td>4.33</td>
</tr>
<tr>
<td>7</td>
<td>Revising regularly</td>
<td>3.27</td>
<td>3.75</td>
</tr>
<tr>
<td>28</td>
<td>Making friends with native speakers</td>
<td>3.22</td>
<td>4.08</td>
</tr>
<tr>
<td>22</td>
<td>Not worrying about mistakes</td>
<td>3.12</td>
<td>3.83</td>
</tr>
<tr>
<td>12</td>
<td>Talking to other students in English</td>
<td>3.12</td>
<td>4.00</td>
</tr>
<tr>
<td>31</td>
<td>Listening to the radio in English</td>
<td>3.10</td>
<td>4.17</td>
</tr>
<tr>
<td>4</td>
<td>Reading books in English</td>
<td>3.09</td>
<td>4.58</td>
</tr>
<tr>
<td>30</td>
<td>Learning about the culture of English speakers</td>
<td>3.04</td>
<td>3.25</td>
</tr>
<tr>
<td>17</td>
<td>Keeping a language learning notebook</td>
<td>3.03</td>
<td>3.83</td>
</tr>
<tr>
<td>21</td>
<td>Pre-planning language-learning activities</td>
<td>3.02</td>
<td>3.67</td>
</tr>
<tr>
<td>23</td>
<td>Using a library</td>
<td>3.02</td>
<td>3.83</td>
</tr>
<tr>
<td>14</td>
<td>Reading newspapers in English</td>
<td>2.98</td>
<td>4.08</td>
</tr>
<tr>
<td>20</td>
<td>Controlling schedules so that English study is done</td>
<td>2.84</td>
<td>3.58</td>
</tr>
<tr>
<td>19</td>
<td>Taking note of the language in the environment</td>
<td>2.76</td>
<td>3.67</td>
</tr>
<tr>
<td>9</td>
<td>Using language learning games</td>
<td>2.71</td>
<td>3.50</td>
</tr>
<tr>
<td>11</td>
<td>Listening to music while studying</td>
<td>2.59</td>
<td>2.33</td>
</tr>
<tr>
<td>10</td>
<td>Writing letters in English</td>
<td>2.53</td>
<td>4.00</td>
</tr>
<tr>
<td>32</td>
<td>Writing a diary in English</td>
<td>1.95</td>
<td>3.58</td>
</tr>
</tbody>
</table>

Overall average level of frequency/importance 3.32 3.87  
Number of high frequency/importance items 11 30
Interestingly, two strategies, *learning from the teacher* (Item 2) and *learning from mistakes* (Item 26), appear in the highly frequently used and highly important strategy lists, suggesting a somewhat traditional educational background for the EFL students and teachers, as well as their awareness of the necessity to regulate learning.

However, as the number of teacher respondents in this study was not statistically large (n=12), the percentages of their positive responses only demonstrated that seven strategies (Items 24, 8, 32, 20, 5, 30, and 11) were not rated as important/highly important by the majority of the EFL teachers. Specifically, one of the highly frequently used strategies, *using a computer* (Item 5), was regarded as important/highly important by only 41.7% of the EFL teachers. Two further strategies, *listening to songs in English* (Item 8) and *trying to think in English* (Item 24), were judged as important by only 50% of the teachers. This difference from the students’ results can be accounted for by the teachers’ possible concern with the students’ extensive use of computers or songs at the expense of other educational resources. In this regard, Griffiths (2007) observed that, “Indeed, teachers may hold beliefs regarding their students’ strategy usage which are quite contrary to what their students report” (p. 92).

Despite this difference, with eight of the 11 core strategies used highly frequently by the EFL students being rated by the majority of their teachers as important/highly important, there is a promising degree of agreement (72.7%). This finding is in line with the similar rate of agreement of 71% in Griffiths’ study (2007), and it potentially has important implications in the EFL instructional context.

The present study was not without its limitations. It relied on the EFL students’ giving ratings, rather than accounts of their actual application of strategies. Further, it was a one-time survey, and there was no attempt to establish a success-strategy use relationship. Finally, although the number of the surveyed students was sufficient for statistical tests, the number of the instructors surveyed in the context of the present study was not statistically large.

**CONCLUSION**

This study aimed to explore EFL students’ and their teachers’ views in relation to the use of language learning strategies at the tertiary level in Northern Cyprus. An additional goal was to investigate the rate of agreement between students’ reports on strategy use and their teachers’ reports on importance. After administering a survey, the pertinent data were examined for reliability, patterns in frequency ratings, and importance ascribed to the use of a language learning strategy in the instructional context. The reliability coefficients for both the students’ and teachers’ versions of the English Language Learning Strategy Inventory (above .70) indicated that it was a reliable survey tool in the context of the present study.
The major findings of the study were as follows. The EFL students used 11 core strategies with high frequency in their studies. This finding is at some variance with Griffiths’ findings (2003, 2007) and is possibly due to the differences of context, nature of instruction, and learner variability. The majority of the EFL teachers (above 50%) rated 25 of 32 strategies as important/highly important for their students, including eight of the 11 core strategies. This finding suggested a promising degree of agreement between the two groups of participants (72.7%), and it suggests compatibility of the students’ and teachers’ views in relation to strategy use. There are thus positive implications for English language teaching and learning at the institution.

In light of the emerging picture of the EFL students’ inadequate repertoire of strategies and inadequate use of certain strategies in context (especially with respect to management of learning, interaction, and development in the target language) the following issues can be considered for follow-up investigations: how to incorporate a strategy component into instruction, and how to provide opportunities to practice the application of strategies, thereby promoting students’ awareness of, and competence in, strategies. Future research can examine reports on the frequency of strategy use and strategy importance according to learner and teacher variables. Additional research can also focus on investigating students’ actual application of strategies and teachers’ related decisions and actions.

ACKNOWLEDGEMENTS

The authors would like to express their gratitude to Dr. Carol Griffiths who kindly granted permission to administer the ELLSI in this study. We would also like to thank our students and colleagues who participated in the present survey.
REFERENCES


AUTHORS

Ali Sidki Ağazade, PhD. Assistant Professor, English Language Teaching Department of the Education Faculty at Eastern Mediterranean University in Northern Cyprus.

Gülşen Musayeva Vefali, PhD. Associate Professor, English Language Teaching Department of the Education Faculty at Eastern Mediterranean University in Northern Cyprus.
Phonetic Training in the Foreign Language Curriculum

KEVIN R BURNHAM
Appalachian State University

In this experiment we evaluate phonetic training as a tool for language learning. Specifically, we take a group of native speakers (NS) of English \( n=24 \) currently enrolled in Arabic classes at American universities, and evaluate the effectiveness of a high variability phonetic training program (HVPT) to improve their perception of a difficult Arabic phoneme contrast. We find that a group of phonetic trainees showed significantly greater improvement in a minimal pair test of the Arabic /h/-/ħ/ contrast \( F_{1,22} = 8.89, \ p = .007, \ η^2 = .288 \) compared to an untrained control group. We argue that such training in bottom-up decoding processes has been neglected in the literature of second language pedagogy and that phonetic training can be an important component of a foreign language curriculum, particularly in light of the low cost it imposes on both teachers and learners.

INTRODUCTION

The experiment described represents an attempt to improve the phonetic processing skills of a group of college-level language learners with short-term phonetic training. Prior to discussion of the experiment and its results, we first briefly review the pedagogical literature regarding perceptual-level listening skills and phonetic training.

Perception Pedagogy

The subskills that underlie listening comprehension have traditionally been divided into bottom-up and top-down processes (Richards, 1983). Although different definitions for the two processes have been offered, in general, bottom-up processes are those that involve processing the raw acoustic signal so that a meaningful linguistic message can be produced, whereas top-down processes assign a final interpretation to that message based on background knowledge and contextual factors.
In general, language pedagogy textbooks have tended to focus on the building of top-down skills such as activating schemata, making predictions, and listening for specific cues. Discussion of the development of bottom-up skills in learners is typically neglected, or in some cases actively discouraged, either because it may distract learners from a more important focus on communicative skills (Brown, 1994) or because such a focus is unnecessary as such low-level skills will “take care of themselves” (Ridgway, 2000, p. 184). Even in cases when bottom-up skills are prioritized and discussed, those discussions are rarely informed by the large body of research that describes how adult language learners learn to perceive difficult phonetic distinctions and what types of behaviors might facilitate that process.

Some researchers in the field of listening comprehension pedagogy have begun to rectify this neglect of bottom-up processes. Most notably, Field (2008) has proposed what he terms a “process approach” to listening comprehension. He argues that the importance of bottom-up skills to successful listening comprehension has been neglected in second language pedagogy, and advocates that this neglect be rectified through the development of activities specifically tailored to foster the development of bottom-up skills, such as phonemic identification and lexical segmentation. To that end, our experiment attempts to evaluate phonetic training, described in detail in the next section, as a possible tool for language teachers and learners.

**Phonetic Training**

Independent of the pedagogical concerns noted above, laboratory research in the field of speech perception has developed methodologies for improving the ability of adult language learners to perceive linguistically relevant acoustic contrasts in their second language. Two pioneering studies in phonetic training illustrate the methodology.

In the first, Strange & Dittman (1984) failed to improve the linguistically relevant perceptual skills of a group of NS of Japanese. They studied the ability of their subjects to perceive the /r/-/l/ contrast of English. The experimenters created a continuum of artificially generated speech sounds that ranged from “rock” to “lock.” During training, subjects performed a discrimination task. They heard two of the tokens from along the continuum and were asked to indicate whether the two were the same or different. They were then informed immediately whether their answer was correct or not before proceeding to the next test item. This training consisted of about 2,000 total trials spread out in daily sessions over three weeks. Both before and after training subjects took an identical assessment test that was similar to the training task, but did not provide feedback. What they found was that although the subjects as a group showed significant improvement in their ability to perceive the differences in the training stimuli, they did not improve in their ability to identify /r/ and /l/ when tested with real speech tokens. Thus the improvement they showed was token specific, and not linguistically relevant. Importantly, this experiment included a component lacking from most prior phonetic training.
studies – a test of the extent to which training gains generalized to real speech tokens and to voices that were not a part of the training. Perceptual improvements that do not generalize to new voices are irrelevant to language learners.

A noteworthy feature of phonetic training is that no metalinguistic information is ever provided to the learners. They are not told how the /h/ is pronounced, nor how it differs acoustically from /ħ/. Similarly the subjects are not asked to extract metalinguistic data from the input (inductive learning). As such, the task meets the definition of implicit learning provided by Dekeyser (1995).

METHOD

Phonetic Training for Learners of Arabic

In this experiment, a group of native speakers of English enrolled in Arabic courses at American universities were trained to categorize a difficult phoneme contrast of the Arabic language, specifically the glottal fricative (/h/) and the pharyngeal fricative (/ħ/). Both qualitative interviews with Arabic teachers and empirical studies with students indicate that this is one of the most difficult perceptual tasks faced by NS of English learning Arabic; even advanced learners sometimes struggle to accurately categorize the two phonemes (Burnham, 2010). The best acoustic and articulatory description of the Arabic /h/ is provided by Heselwood & Al-Tamimi (2011) who found that production of the /h/ involved “consistent and considerable retraction and lowering” (p. 111) of the epiglottis compared to the /h/. Acoustically, they found that the main difference between the two sounds was in the onset of the first and second formants of the following vowel. For the pharyngeal /ħ/ these two formants were typically very close together, whereas for the laryngeal /h/ they were further apart. Only one published study attempts to determine the acoustic cues that NS of Arabic rely on in discriminating between these two sounds (Ghowail, 1987). Heselwood & Tamimi (2011) suggest that the most relevant acoustic cue for disambiguating /h/ and /ħ/ is not the initial fricative portion, but rather the transition to the following vowel, which confirmed the results of Ghowail’s perceptual experiments. In his study, Ghowail removed the initial fricative portion of /hV/ and /ħV/ sequences and found that his subjects were able to identify the missing fricative based on the vowel portion alone. Furthermore, when the transition information was eliminated, so that only the frication noise and the following steady state vowel were present, subjects were unable to reliably identify the stimuli. Thus it appears that the most important source of information in discriminating /h/ and /ħ/ is the transition from fricative noise to steady state vowel. This is not atypical as a similar effect is found for English /f/ and /θ/ (Harris, 1958). In discriminating between these two phonemes, NS of English rely on information provided by the following vowel.
The English /h/ is, at least in the word initial position, more or less identical to the Arabic /h/. English has no sound like the pharyngeal /h/ and English listeners frequently hear the two sounds as identical, whereas NS of Arabic have little difficulty telling them apart (Burnham, 2010).

Participants

Subjects in this experiment were recruited from four different American universities, each of which had large Arabic programs and offered intensive Arabic classes with five contact hours per week. The subjects for the experiment met the following criteria: they were currently enrolled in a second or third year Arabic class, they were native speakers of English, and they had not had significant exposure to Arabic prior to studying it at the university. After the pretest, several subjects were eliminated from the experiment due to especially high pretest scores that indicated the subjects were already able to make the discrimination. A total of 36 subjects remained to enter the training program; of those, only 24 returned for the posttest, so the total subject population included 10 subjects in the phonetic training group and 14 in a control group.

Pretest

All subjects took an online minimal pairs test to assess their initial ability to categorize the Arabic /h/ and /ħ/ accurately. Subjects were presented a minimal pair on the screen, written in Arabic script and differing only in the presence of /h/ or /ħ/. The subjects heard one of the words spoken and clicked on the word they thought they heard. In the testing phase, no feedback was given to the subjects. The test consisted of a total of 108 items. Half of the items came from the training voice (TV). We call this the training voice because subjects would hear this voice (and several others) during training. The second half of the items came from the generalization voice (GV). We call this the generalization voice because subjects only hear it during testing, and never during training. Improvement in perception of tokens from this voice is the most relevant measure of the success of the phonetic training, because it is the best measure of linguistically relevant perceptual improvements. Subjects heard all the tokens from one voice, took a short break, and then heard all the tokens from the other voice. Trials were randomized within blocks and the order of blocks was counterbalanced across subjects. Each pair of words was presented twice with the correct answer alternating so /h/ was the correct answer 27 times and /h/ was the correct answer 27 times in each block.

Training

Following the pretest, two groups of 18 participants were formed. Participants were assigned to either the control group or the training group. To the extent possible, the two groups were created so that their average pretest
performance was more or less identical and so that there was balance between the groups in terms of the source institution and current training level.

Participants assigned to the training group were given a username and password to allow them to access the training website. They were encouraged to keep a regular schedule over about four weeks, during which time they should complete 100 training modules. Each module consisted of 24 minimal pair trials, so trainees would make a total of 2,400 identifications over the course of the training period. There were five different modules, differing only in the voice that provided the speech tokens. After cycling through each of the modules, the subject would return to the first module again and repeat the process. One of the voices used in training was identical to the TV used at the pretest mentioned above. Subjects heard the other four voices only during training. Three males and two females, whose ages ranged from 22 to 38 years, provided the voices. Participants were paid $5 each for the pre- and posttest. Trainees were paid $75 for completing all 100 training modules.

The training modules were similar to the pretest, with a few important exceptions. For one, during training subjects could hear the word they were trying to identify as many times as they liked before clicking on their answer, rather than hearing it only once. Furthermore, trainees received immediate feedback as to whether or not they answered correctly. On this same feedback screen, trainees had the option to hear the word again or to hear the word’s counterpart from the same voice. They also had the option to listen to both words from each of the four other voices used in training. When they were ready to move on, trainees clicked “Next” and were given the next training item. After completing a module, subjects were taken to a home screen where they could see a graph of their progress over time. After completing the 100 training modules, subjects were contacted to take a posttest that was exactly identical to the pretest. Subjects in the control group also returned after about four weeks to take the posttest, but in between did nothing extra, although all participants in the experiment were concurrently enrolled in an Arabic class.

RESULTS

As indicated above, the most relevant test of linguistically relevant perceptual improvement was the generalization test; that is, the extent to which the trainees improved when tested on tokens from a new voice that they had not previously heard. Table 1 below shows mean percent correct scores and standard deviations at pretest and posttest for the 10 subjects that completed the training modules.

Table 1: Training Group (N=10) – Descriptive Statistics for Pre- and Posttest - % Correct

<table>
<thead>
<tr>
<th></th>
<th>Minimum</th>
<th>Maximum</th>
<th>Mean</th>
<th>Std. Dev.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pretest</td>
<td>38.9</td>
<td>81.5</td>
<td>65.4</td>
<td>11.8</td>
</tr>
<tr>
<td>Posttest</td>
<td>63.0</td>
<td>88.9</td>
<td>80.6</td>
<td>8.3</td>
</tr>
</tbody>
</table>
A paired-samples t-test comparing pre- and posttest scores for participants in the training group shows that the average improvement of 15.2% was statistically significant at the $\alpha = .05$ level ($t_{9} = -4.65$, $p = .001$). However, it is possible that this improvement is the result of task familiarity (they took the same test twice) or the fact that they were concurrently enrolled in intensive Arabic language classes and the improvement is the result of that course of study and not of the training website per se. Therefore, it is necessary to compare the difference in pre- and posttest performance in the training group with that of the control group that did not undergo training.

If training participants showed greater improvement than the control participants from pretest to posttest as measured by the test of generalization, it suggests that they have gained knowledge about the difference between /h/ and /ħ/ that successfully transfers to new voices.

Below are descriptive statistics of percent correct scores on the test of generalization for the control group at pre- and posttest:

<table>
<thead>
<tr>
<th>% Correct</th>
<th>Minimum</th>
<th>Maximum</th>
<th>Mean</th>
<th>Std. Dev.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pretest</td>
<td>42.6</td>
<td>79.6</td>
<td>64.6</td>
<td>9.98</td>
</tr>
<tr>
<td>Posttest</td>
<td>48.1</td>
<td>83.3</td>
<td>68.4</td>
<td>11.7</td>
</tr>
</tbody>
</table>

The average improvement of 3.8% was not significant at the $\alpha = .05$ level for the control group ($t_{13} = -1.72$, $p = .109$).

Note that although not all participants returned, the average pretest scores for the training (65.4) and control (64.6) groups were similar and the difference between them was not statistically significant ($t_{22} = .184$, $p = .856$). We are fortunate that despite the loss of so many participants, the pretest performance of the two groups remained nearly equal.

A 2 x 2 repeated-measures ANOVA was performed to test for an interaction between TIME (pretest and posttest) and GROUP (training and control) on the 54 item GV test to determine if the change in scores between pre- and posttest was significantly different in the training group as compared to the control group. Boxplots, ANOVA results, and a brief description of the data follow below.
Levene’s test reveals that the differences in the variance of the pre-
\( F_{1,22} = 0.087 \) and posttest \( F_{1,22} = 1.86, \ p = .186 \) scores were not significant, and so uncorrected results are reported here. The test shows that the greater improvement shown by the training group is statistically significant \( F_{1,22} = 8.89, \ p = .007 \) with a medium effect size \( \eta^2 = 0.288 \). This is the most important statistical result of the experiment as it demonstrates that the training group showed significantly greater improvement than the control group in perceiving stimuli provided by a voice with which the two groups had equal experience. As noted, it is necessary, if not sufficient, to be able to show that phonetic training can yield language general improvement in the ability to identify /h/ and /h/, and we have done that here.
The same conclusion can be drawn when analyzing the data with the use of d-prime scores. The use of d-prime scores gives us a measure of subject performance while subtracting out biases in the response pattern. For example, because English contains no /h/ we may find that our subjects are biased to respond /h/, which would skew our final results. A repeated measure ANOVA using d-prime scores similarly finds that the training group showed significantly greater improvement than the control group from pre- to posttest as seen in the table below. Indeed the effect size found using d-prime scores ($\eta_2 = .365$) is even greater than that found using percent correct scores ($\eta_2 = .288$).

<table>
<thead>
<tr>
<th>Time</th>
<th>SOS</th>
<th>Df</th>
<th>Mean Square</th>
<th>F</th>
<th>Sig.</th>
<th>$\eta^2$</th>
</tr>
</thead>
<tbody>
<tr>
<td>Time</td>
<td>4.410</td>
<td>1</td>
<td>4.410</td>
<td>25.651</td>
<td>.000</td>
<td>.538</td>
</tr>
<tr>
<td>Time*Group</td>
<td>2.179</td>
<td>1</td>
<td>2.179</td>
<td>12.673</td>
<td>.002</td>
<td>.365</td>
</tr>
<tr>
<td>Error (Time)</td>
<td>3.782</td>
<td>22</td>
<td>.172</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Thus we may conclude that our training methodology can be used, at least in some cases, to improve the perceptual abilities of our Arabic learners, even after they have had a fair amount of exposure to the contrast. In addition to these empirical results, several of the trainees consented to interviews in which they were asked about their experiences with the website, and the extent to which they found it useful as a language learning tool. The five subjects that participated in the interviews each indicated that they felt they had made tangible progress in identifying /h/ and /ħ/, with one subject indicating pronunciation improvements in the pair as well.

Unfortunately the nature of the experiment introduces a potential confound for interpretation of our results. As noted, only 10 of the 18 original training group participants completed all 100 training modules and returned for the posttest. It might be supposed that those subjects who did not complete the training dropped out because they felt that the training was not working, introducing substantial bias into our data. However, most of these dropouts completed only a handful of modules, and none more than 23, so it seems probable that these subjects dropped out for other reasons.

**DISCUSSION**

As we have indicated, for phonetic training to be considered a viable tool for language teaching and learning, it must minimally demonstrate that it can, for at least some learners, improve linguistically relevant speech perception. However, this alone is not sufficient to justify its use as a pedagogical tool because we must also consider how these perceptual improvements might impact proficiency in the long term, and also what types of costs, in terms of money and student and teacher time, are imposed by the training.
Richards (1983) provides an explicit framework for the teaching of listening based on a more informed understanding of what the listening process involves. He advocates the development of means for identifying the micro skills that underlie desired behaviors and subsequently developing means for diagnosing and improving these skills in learners. Similarly, Sheerin (1987) and others (Vandergrift, 2004; Goh, 2002; Mendelsohn, 2001) have called for greater attention to be paid to bottom-up processes in listening comprehension pedagogy by arguing that in many cases language teachers do not teach listening, but rather merely practice listening again and again. The incorporation of phonetic training into a language curriculum can allow teachers to be more proactive in assisting students with persistent perceptual difficulties.

Improved phonemic perception is necessary, in particular, for identifying information in a listening text that is contrary to expectation. For example, Tsui & Fullilove (1998) found that learners with poor decoding skills are over-reliant on top-down processing and frequently impose erroneous schemata on listening texts due to their failure to accurately perceive nuance in the text. Furthermore, listeners with poor decoding skills have been found to use top-down schemata to alter what they hear, perhaps reflecting an underlying lack of confidence in their own perception (Field, 2004). The same study showed that learners who lacked confidence in their perceptual skills were likely to ignore contextual information to perceive a familiar word, rather than correctly perceiving the existence of a new word.

Therefore, in addition to the empirical results demonstrating improved phonemic perception, we find that phonetic training responds to an acknowledged need in the field of second language listening pedagogy, and feel that we are justified in pursuing the use of phonetic training as a language learning tool. We turn now to a discussion of how we might do so.

**Phonetic Training in a Language Curriculum**

There are several aspects of phonetic training that make it particularly attractive for use as a language-learning tool. For one, although the development of a phonetic training program for a single phonemic contrast can be a time and labor intensive process, once it has been developed it can be used by a theoretically unlimited number of users. Because the tests are very simple and feedback is automated, only an initial investment of time and labor is necessary to get the system running.

Related to this idea, phonetic training requires minimum training or knowledge on the part of teachers. Teachers who have students who they believe could benefit from the training need only make those students aware of the training website. Teachers do not need to use their valuable class time. They also are not required to learn everything about the phonetics and phonology of Arabic, nor about the processes that underlie phonemic identification.

Also of virtue is that fact that phonetic training can be targeted specifically at those learners who need it most. In any group of language
learners, some are likely to be very good at learning to perceive phonemic differences in an L2 through short-term exposure alone, but others may struggle for years. Only those learners who require additional assistance need participate in phonetic training, whereas other learners can direct their energies elsewhere.

Finally, phonetic training does not require an especially long period of time. It is estimated that trainees in this experiment spent no more than a total of six or seven hours on the training. At the start of the third year of Arabic in an intensive program, most students will have spent approximately 900 hours with Arabic (15 hours a week x 15 weeks a semester x 4 semesters). Measured against this number, the demands of phonetic training seem rather trivial.

There are, of course, some caveats. First, we cannot take for granted that improved performance on a minimal pair task will result in improved performance in real-life listening. We do not expect that phonetic training in and of itself will improve listening comprehension; however, used alongside a communicative, proficiency-based curriculum, we believe it can aid in that goal. Inside the classroom it is probably best that the teacher continue to focus on training students to use top-down strategies when tackling a listening text.

It is also important to note that phonetic training will not be of value to all learners that are having perceptual difficulties. All phonetic training studies show substantial variation in the gains from training; and in our study one member of our training group showed no gains from pre- to posttest. Therefore, a learner that spends some time on the training (6-7 hours), with no tangible results, would perhaps be best served by abandoning the training and taking a new approach.

CONCLUSION

We have demonstrated here a relatively simple empirical methodology for improving the perception of a difficult phonemic contrast of the Arabic language for native speakers of English. The methodology described can easily be adapted to other contrasts and other L1/L2 learning combinations. We have demonstrated that this methodology can improve linguistically relevant speech perception in at least some of our learners; however, many questions remain about the efficacy of phonetic training, including: How much training is ideal? How long do the gains from training last? Which contrasts are most likely to be trainable? What are the characteristics of a learner who can benefit from phonetic training? How might the training itself be made more effective? We hope that future research will shed light on these questions.

ACKNOWLEDGMENTS

Input for the design and conduct of this study was provided by Drs. Mahmoud Al-Batal and David Birdsong.
REFERENCES


**AUTHOR**

Kevin R. Burnham, PhD. Assistant Professor, Department of Languages, Literatures and Cultures, Appalachian State University. Specializations: second language speech perception, Arabic language pedagogy.
This research focuses on speaking proficiency and successful second language speakers’ traits using a survey and an interview. The participants in the study were in a short intensive course between four and six months, depending on the language they studied. The successful learner was defined as someone who received 1+ or above on the Interagency Language Roundtable (ILR) scale in an oral proficiency interview (OPI). The speakers completed a biographical questionnaire and the Strategy Inventory for Language Learning (SILL). The interview consisted of questions regarding motivation, language background, study habits, learning strategies, etc. The SILL revealed that most of the successful speakers showed greater use of metacognitive and social strategies. During the interview, the successful speakers stressed the ideas of approaching the target culture with an open mind, being active in class, taking risks, and controlling emotions and time. Most of the interviewees had prior language experience; those who received level 2+ and above had learned more than two foreign languages before entering this program, which implied the need for a special class for those speakers who achieved higher scores.

INTRODUCTION

There has been a sizable research effort on successful learners’ traits in Second Language Acquisition (SLA); however, it has not been targeted at specific skills, such as speaking. Speaking requires many strategies different from the other skills, such as planning and choosing the right words, paraphrasing, etc. The strategies might differ among people at different proficiency levels. This research, through a survey and interviews, explored how successful second language (SL) speakers used learning strategies to improve their speaking proficiency. The participants of the study were in a military language program, taking a short language course of four to six months, depending on the language category. Even though they were in a short course, some of the students achieved higher levels in speaking than the
graduation requirement in the military language program – level 1 on the Interagency Language Roundtable (ILR) scale assessed by an oral proficiency interview (OPI). By studying successful speakers, we hoped that what worked for them would work for other SL speakers.

LEARNING STRATEGIES

Strategy is defined as a conscious behavior to learn or use a second language (Cohen, 1998). Many authors have argued that the more strategies learners use, the better their proficiency is (Bruen, 2001; Chamot & Kupper, 1989; Park, 1997). To explore strategy use quantitatively, many researchers have used strategy inventories, and Oxfords’ Strategy Inventory for Language Learning (SILL) (1990) has been relatively reliable, with reliability ranging from .87 to .96 (Park, 1997). The SILL includes six categories of strategies: memory, cognitive, compensation, metacognitive, affective and social.

In terms of types of strategy and their relationship with language proficiency, research results are murky. Some said successful learners used cognitive strategies more than any other strategies (Murray, 2010); but others asserted that metacognitive strategies were used more (Goh & Kwah, 1997). However, the way in which different strategies are employed seems more important than the number of strategies use. Strategies cannot be said to be good or bad, but good learners tend to orchestrate strategies effectively depending on task demands (Cohen, 1998). In addition, Vann and Abraham’s study (1990) revealed that unsuccessful learners used a similar number of strategies as other learners, but they used the same strategies regardless of the type of the task. This was also noticed among non-proficient elementary school children (Chamot & El-Dinary, 1999).

It seems that different skills require different learning strategies; hence, the results are different from one study to another. Hosenfeld (1977) revealed in her study that successful readers remembered prior sentences, read more broadly, skipped unimportant words and had a positive self-image. Yeon and Baik (2006) noted that “unsuccessful” readers tended not to skip unknown words, not to control emotions, and to chunk words inappropriately. Vandergrift noted that successful listeners tend to use metacognitive and cognitive strategies in an orchestrated manner (2003). Swain, Huang, Barkaoui, Brooks, and Lapkin (2009) explored the relationship between strategy use and speaking proficiency by using the speaking portion of the Test of English as a Foreign Language (TOEFL) and reported that there was no statistically significant relationship between speaking proficiency and strategy use. However, they remarked that the task, tester characteristics, and context variables should be considered in studying speaking strategies.

RESEARCH QUESTIONS

The research questions of the current study were twofold. Because the participants were successful speakers of SL, the first question was to find out
what kinds of learning strategies successful speakers used. The SILL was administered, and interviews were conducted. Secondly, through biographical data, we tried to find out which personal traits were related to speaking success.

1. What kind of learning strategies do successful speakers use?
2. What other factors, such as aptitude, GPA, language background, rank, personality type, etc. are related to successful speakers’ speaking proficiency?

METHODOLOGY

Participants

Fifty students who completed a language course as part of military qualification courses participated in the study. They were chosen for this study because they received level 1+ and above in the Oral Proficiency Interview (OPI). Testers who were certified by the American Council on the Teaching of Foreign Languages (ACTFL) conducted the OPI tests and assigned proficiency levels based on the Interagency Language Roundtable (ILR) proficiency level descriptions. For example, level 1 speakers can satisfy minimum social demands and maintain simple face-to-face interaction; Level 2 speakers can satisfy routine social demands and limited work requirements; and Plus level means a speaker’s performance is close to the upper level but cannot be sustained.

The students took the OPI after completing their assigned language course. Twelve students were in Category I and II languages, and thirty-five in Category III and IV languages. Categories I and II languages include French, Spanish, and Indonesian. Category III and IV are Korean, Chinese, Arabic, Russian, Thai, Tagalog, and Persian-Farsi. The students were assigned to their language primarily in accordance with their scores on the Defense Language Aptitude Battery (DLAB). The average DLAB score among these students was 108.6. They ranged in age from 19 to 40; the average was 27.5 years old. Among the 50, only three were females. Both enlisted and commissioned officers participated. Their average Grade Point Average (GPA) score was 93 out of 100 points. The GPA was calculated with the scores of semester tests, weekly speaking tests, homework, and in-class quizzes.

Instruments

Both a survey and an interview were conducted. The students filled out the Strategy Inventory of Language Learning (SILL) (Oxford, 1990) and a biographical survey. Biographical survey questions included age, DLAB score, GPA, rank, personality type, language/educational background and language preference before entering the language program. The researcher conducted the interview, which was recorded and later coded by the researcher and an assistant. The list of interview questions is attached at Appendix. Certified ACTFL testers scored the OPI. All participation was voluntary.
RESULTS

Quantitative research

The SILL revealed that the successful speakers used metacognitive and social strategies more than the other four strategies. Metacognitive strategy scores averaged 4.06 and social strategy 4.47 on a five-point scale. The least used strategies among this group were affective strategies.

Table 1: SILL Strategy, GPA, OPI and DLAB Descriptive Statistics

<table>
<thead>
<tr>
<th>Strategy</th>
<th>Minimum</th>
<th>Maximum</th>
<th>Average</th>
<th>Standard Deviation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Memory</td>
<td>2.56</td>
<td>4.78</td>
<td>3.58</td>
<td>.53</td>
</tr>
<tr>
<td>Cognitive</td>
<td>2.44</td>
<td>4.78</td>
<td>3.85</td>
<td>.55</td>
</tr>
<tr>
<td>Compensatory</td>
<td>2.64</td>
<td>4.64</td>
<td>3.62</td>
<td>.51</td>
</tr>
<tr>
<td>Metacognitive</td>
<td>2.33</td>
<td>5</td>
<td>4.06</td>
<td>.61</td>
</tr>
<tr>
<td>Affective</td>
<td>1.17</td>
<td>4.33</td>
<td>3.06</td>
<td>.66</td>
</tr>
<tr>
<td>Social</td>
<td>2.83</td>
<td>5</td>
<td>4.47</td>
<td>.54</td>
</tr>
<tr>
<td>Total SILL</td>
<td>2.63</td>
<td>4.41</td>
<td>3.79</td>
<td>.43</td>
</tr>
<tr>
<td>GPA</td>
<td>83</td>
<td>98</td>
<td>92.9</td>
<td>4.1</td>
</tr>
<tr>
<td>DLAB</td>
<td>38</td>
<td>147</td>
<td>108.6</td>
<td>24</td>
</tr>
<tr>
<td>OPI level</td>
<td>1.5</td>
<td>3</td>
<td>1.9</td>
<td>.35</td>
</tr>
</tbody>
</table>

Note: N=50, SILL scores out of 5, OPI level is out of 5, GPA scores out of 100, DLAB scores out of 176.

The correlation between the total SILL and OPI scores was not significant. The correlation between each strategy category and OPI scores was not significant. It was interesting that the correlation between compensation strategy use and OPI scores was negative. The correlation between compensation strategy use and GPA was also negative.

As for question 2 on the relation between strategy use and other factors, the DLAB scores and OPI scores did not show any significant relation. However, when Category III and IV language learners were separated from the entire group and examined, there was a significant relation ($r=0.4$, $p<0.05$, N=38). Category I and II languages did not show any significant correlation between DLAB and OPI scores. It is understandable because the standard deviation in DLAB is 33.47 (see Table 2 and Figure 1), which means that scores were widespread from the mean; for example, one speaker’s DLAB was 38.
Table 2: Means of DLAB Scores

<table>
<thead>
<tr>
<th>Category I, II</th>
<th>Category III, IV</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mean (Standard Deviation)</td>
<td>98 (33.47)</td>
</tr>
</tbody>
</table>

Figure 1: Scatterplot between DLAB and OPI Scores in Category III & IV Students

Note: OPI 1.50 means level 1+, 2.50 means level 2+.

In addition, the correlation between GPA and OPI scores was statistically significant in this group \( (r=0.33, p<0.05) \). It implies that the higher the speaker’s GPA, the higher OPI score the speaker achieved.

A significant correlation was also found between the OPI scores and the number of other foreign languages the participants had learned \( (r=0.38, p<0.05) \). Only one out of the 50 participants had not had any previous second language experience. Five out of seven speakers who received 2+ and above had learned three or more languages previously. For example, students who received 2+ in Arabic had studied Italian, Spanish, German and/or French.

The other factors did not show any significant relation with OPI scores. In terms of self-reported personality type, the students’ responses indicated that 40 percent were extroverted, 23 were introverted, and 38 were balanced. Many from the “balanced” group said they could be introverted or extroverted depending on the environment. Moreover, some introverted speakers emphasized that they forced themselves to fully engaged in class.
Table 3: Prior Language Experience

<table>
<thead>
<tr>
<th>Number of Prior Language(s)</th>
<th>Number of Participants</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>29</td>
</tr>
<tr>
<td>2</td>
<td>11</td>
</tr>
<tr>
<td>3</td>
<td>7</td>
</tr>
<tr>
<td>4 and 5</td>
<td>3</td>
</tr>
</tbody>
</table>

Forty out of fifty participants had college experience (80%) and ten participants (20%) did not; but it did not seem that educational experience influenced language proficiency. In terms of ranks, commissioned (20%) and non-commissioned officer (80%) groups did not show any significant difference in OPI scores.

Finally, thirty-five percent said they did not choose to learn their target language (TL) initially. Although this was a military setting where they had to study an assigned language, these students’ motivation level seemed high: most said positive things about the TL. The speakers’ motivation level and achievement were astonishing considering that there was no monetary compensation as long as they met the requirement, OPI level 1.

Interview

Individual comments during interviews were collected and analyzed. After the initial interview, the researcher decided to have six most frequently mentioned strategy categories. The researcher and the assistant coded the recorded responses together.

1. **Class Engagement.** Many were very focused, fully engaged, excited, and active in class. Successful learners are assumed to study extensively; however, the most successful speakers that we interviewed said that they studied only one to one and half hours after class. They realized that the only time to practice the TL was during class, because they had much less chance to talk with TL speakers outside of class.

2. **Open Mindedness.** Many understood the linguistic and cultural differences between the TL and English — it was impossible to do word-to-word translation from English to the TL. They knew from their prior language experience that all languages were different. They also noticed that acceptance of cultural differences made a difference in TL learning. Most participants emphasized open-mindedness to the target language and culture.

3. **Taking Risks.** Many profited from taking risks. Most participants acknowledged that taking risks was important to become more proficient. They said making mistakes was acceptable, because many times teachers gave feedback to them so that they could fix the mistakes. It is of interest that in a military setting, students want to be perfectionists, because they do not want to be seen by their peers as someone who makes mistakes. However, most
participants knew that taking risks was more valuable than saving face in a foreign language class. They also noted that it was not necessary to use exact words; they could paraphrase.

4. **Monitoring Time and Emotions.** Many understood the importance of managing time and controlling emotions. All the participants had other military duties, such as physical training, job-related training, etc. However, they always set aside time for study. In addition, they commented that controlling emotions was important. They did not recommend studying at a desk all day long: it is easy to experience burn out quickly. One said, “Go out, have fun, and come back to the books.”

5. **Finding/Creating Conversational Partners.** Many discussed social strategies, such as finding conversational partners. However, because they were in an English environment, finding a TL speaking partner was difficult. Some students had creative ways to practice the TL. For example, they set a time to speak the TL on the phone with classmates or with their teachers after class. Some asked their spouse or a friend to be a conversation partner: the partner used English and the student responded in the TL. One student even used an action figure to practice speaking. All these strategies implied that those students were motivated to speak the TL.

6. **Cognitive Strategies.** Many commented on using cognitive strategies, such as word association. Those students knew their learning style and, based on their sensory preferences, chose to use flash cards or listen to CDs. In addition, many commented on the importance of vocabulary in speaking a TL.

**DISCUSSIONS AND IMPLICATIONS**

As for question 1, the Strategy Inventory of Language Learning (SILL) revealed that metacognitive strategies and social strategies were used more than the others. Huang and Van Nearsen’s study (1987) on speaking skills also concluded that highly proficient students tended to use functional practice techniques, such as thinking in the TL or practicing in groups, more than any other strategies.

Prior language experience revealed that the number of languages students had learned had a significant relationship to their speaking proficiency. Practically all the speakers knew at least one language before entering the program. Table 4 shows the profiles of speakers who received ILR rating 2+ and above. Five out of the seven had learned three or more languages previously. Most learned them either in high school or college. Even though most languages they had learned were Indo-European languages, the effect on TLs, most of which were not Indo-European languages, was positive. Many studies suggest language background is a good predictor of success in learning a second language (e.g., Leaver & Atwell, 2002). Successful speakers knew what and how to study a TL through prior language learning experience. Those polyglots might have utilized what Biggs (1992) called *deep strategies*, where a learner makes strong connections with prior knowledge using association.
Table 4: Profiles of Speakers Who Received OPI Levels 2+ and 3

<table>
<thead>
<tr>
<th>Speakers</th>
<th>DLAB Score</th>
<th>OPI Score</th>
<th>Target Language</th>
<th>Prior Language and Length of Study (in Years)</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>124</td>
<td>2+</td>
<td>Arabic</td>
<td>German-1.6, Spanish 2.6, French-2.6</td>
</tr>
<tr>
<td>B</td>
<td>95</td>
<td>2+</td>
<td>Indonesian</td>
<td>Japanese-2</td>
</tr>
<tr>
<td>C</td>
<td>90</td>
<td>2+</td>
<td>Indonesian</td>
<td>French- 1, Japanese -1, Spanish-0.6</td>
</tr>
<tr>
<td>D</td>
<td>122</td>
<td>2+</td>
<td>Arabic</td>
<td>Italian, Spanish, German-3, French-2.6, Arabic-0.6</td>
</tr>
<tr>
<td>E</td>
<td>147</td>
<td>3</td>
<td>Indonesian</td>
<td>Russian-3</td>
</tr>
<tr>
<td>F</td>
<td>135</td>
<td>2+</td>
<td>Arabic</td>
<td>Russian -2, French-3, Arabic- 0.6</td>
</tr>
<tr>
<td>G</td>
<td>?</td>
<td>2+</td>
<td>Spanish</td>
<td>French-2, German-3, Spanish heritage (age of learning-8)</td>
</tr>
</tbody>
</table>

In addition, successful speakers used deliberate strategies. They knew how to control their emotions (affective strategy), how to plan studying (metacognitive), and where to find conversation partners (social strategy). They were fully engaged in class, rather than spending hours at a desk after class. Many stated that being engaged in class was one of the most important things (metacognitive strategy). In an English environment, the only time to practice the TL is in class. Students commented that studying at home alone might be good for other skills, but speaking skills could not be improved by just studying books. Teachers need to address this issue of utilizing class time because it is the only time that students speak in the TL.

The strategy of controlling emotions is often omitted in regular class discussions and neglected by learners as well. However, affective strategies play a significant role in learning (O’Malley & Chamot, 1990). New language learners frequently study hard at the beginning but they become frustrated later on if they do not see any improvement. By regulating emotions (e.g., rewarding oneself, not being afraid of making mistakes, etc.), students can avoid being burned out and continue with their learning. Teachers should encourage students to use these strategies through class discussion or counseling sessions (Chamot, 1999).
According to the background questionnaire, some students did not choose to learn the language that they were asked to study. Thirty percent of the successful speakers did not choose their TL; but accepted the assigned language and were motivated to learn it. These students were not demotivated because their preference was denied; many were fully engaged in their study. One student who received a level 2 and was over 40 years old said, “I was very excited to learn this language. Since it is used in the field, some day I know that I will save a life later using this language. So I feel very privileged and honored.”

One of the findings was that successful learners had open minds and accepted the differences between the TL and English. They also believed that knowing the TL culture was important. During the interviews, they were often excited to talk about the differences between their own and the TL culture. Many sought TL cultural experience outside the classroom, such as visiting TL temples, grocery stores, etc. They often talked about how kindly native speakers treated them when they tried to use the TL even at the beginning stage.

Successful students did not question why there were so many differences between the TL and their own language. They accepted the differences as they were. They asked questions but did not try to analyze every single word in a sentence if they understood the message. TL teachers noticed that some students dragged the class down by asking many grammatical questions. These students did not improve much, because they were too analytic. This should be addressed in class one way or another because many students who do not have any prior L2 learning experience tend to think L2 and L1 are alike and there is always a word-to-word translation between two languages.

Finally, many made comments that they used specific strategies, such as using flash cards, or watching TL videos. Teachers did not give them specific strategy lessons, but they instinctively used these strategies to learn a new language. There has been discussion of whether learning strategy instruction is desirable (e.g., Chamot, 1999). Oxford, for example, (1990) suggests practicing these strategies by inserting them into the regular class activities, through which students can be familiarized with selecting, evaluating and monitoring strategies.

CONCLUSION AND FURTHER RESEARCH QUESTIONS

The participants in this research had achieved more than they were required to. Some achieved level 2 and above in four months. The study shows that successful speakers have the following traits: the higher DLAB and GPA scores and the more previous language learning experience they had, the higher their OPI scores were. Their success might have resulted from using metacognitive and social strategies, having more foreign/second language learning experience, focusing more in class, having an open mind to the TL, taking risks, controlling time and emotions, and knowing their learning style well.

However, strategies alone cannot explain the success of SL learners. The correlation between SILL scores and OPI scores was found to be weak. In addition, there are other factors affecting success. For
example, many interviewees mentioned motivation in learning. Studies on exceptional learners might shed light on this aspect. Samimy’s Arabic learner (2008) was highly motivated to be accepted as an insider in the TL community. He also had other language background and had spent a long time in the TL country. Leaver and Atwell (2002) also claimed that high achievers were intrinsically and extrinsically motivated. However, motivation is a complex domain, and more research is needed to investigate its relation to learning strategies.

The reason why there was a weak relationship between oral proficiency and learning strategies might lie in the tool. The SILL is a survey for the study of general learning strategies. It might not be the most suitable tool to examine speaking skills. Because speaking is transient, it needs different strategies from the other skills. A more finely-tuned speaking strategy survey tool is needed. The Oral Communication Strategy Inventory (Nakatani, 2006) could be a more appropriate tool to use for further research. Moreover, a think-aloud protocol might have captured how successful speakers actually use learning strategies.

Finally, because prior language experience had a strong correlation with speaking proficiency, it is advisable that teachers and school administrators consider offering a special class for the students with several prior languages to boost their full potential.

APPENDIX

Interview Questions

1. Name and age?
2. How do you assess your current proficiency in the target language? What was your approximate GPA?
3. Have you studied the target language (TL) formally? When? Where?
4. Why did you decide to study TL? What was the motivation behind that? If you did not get your first choice, what was your first choice?
5. Have you been to the TL speaking country or countries? When? Where?
6. How long did you stay?
7. How did those experiences affect your knowledge of the TL?
8. Do you know any other second language (SL)? What is your proficiency in each of them?
9. What is the hardest part of learning the TL (e.g., grammar, pronunciation, vocabulary, listening, etc.)?
10. What kind of things did you do when studying outside the classroom (e.g., study alone/together, flash cards, writing sentences, recording yourself, listening to SCOLA)? How much time on average did you study the TL outside the classroom?
11. Vocabulary
12. Speaking
13. Grammar
14. Listening
15. What other activities did you do outside of regular homework, or vocabulary memorization (for example, watching target language drama/movies, finding a conversation partner, reading target language books, going to target language cultural sites)?
16. Based on your experience, what do you think are the most important factors for being successful in this language?
17. What is your goal for learning the TL (professional reasons, educational, social or personal)?
18. How do you define your personality? Extrovert or introvert?
19. What are your future goals with regards to the TL (I would like to be able to do….)?
20. What are some recurring problems you have encountered in the TL? What strategies have you used to solve them?
21. Do you feel that your family background has influenced you in your TL selection? How so?
22. Do you have suggestions for encouraging current/incoming students to learn this language?

REFERENCES


Leaver, B. L., & Atwell, S. (2002). Preliminary qualitative findings from a study of the processes leading to the advanced professional proficiency level (ILR 4). In B. L. Leaver & B. Shekhtman (Eds.), *Developing professional-level language proficiency* (pp. 260-279). Cambridge: Cambridge University Press.


**AUTHOR**


Reviewed by JASON MARTEL
Monterey Institute of International Studies

It is commonly accepted that the act of teaching in and of itself is not sufficient for improving one’s practice; rather, one must intentionally reflect upon one’s actions and the worldviews that undergird them in order to grow (Murphy, 2014; Zeichner & Liston, 1992). In this spirit, Farrell participated in and studied a professional development group initiated by three mid-career college-level ESL teachers in Canada who desired to take a fresh look at their teaching. Documenting this experience in the pages of Reflective Practice in ESL Teacher Development Groups: From Practices to Principles, Farrell sets as his primary mission to “give…voice to experienced ESL teachers” (p. 1), claiming that the bulk of research in the field of teacher education has been conducted on teachers rather than with teachers and has thus put researcher’s interpretations in front of those of teachers. He draws concrete implications from his study, stating that “a Practice to Principles [emphasis in original] approach to teacher development can give teachers, teacher educators, and administrators a realistic view of their worlds from their perspective and compare their views with what is being presented in current teacher education and development programs to see if these need change” (p. 14).

Reflective Practice in ESL Teacher Development Groups: From Practices to Principles contains nine chapters, flanked by an introduction and a “final reflections” section. In the introduction, Farrell situates his study within a bottom-up, transformational approach to professional development (see Kiely & Davis, 2010). In chapters one and two, he delves into the dual framing pillars of professional development and reflective practice. In chapters three through seven, he conveys the substance of his participants’ reflections, first by exploring topics that arose through discussion and in writing and second by exploring topics related to three constructs: teacher beliefs, teacher roles, and critical incidents. Then, in chapters eight and nine, he takes up the concepts of teacher “plateauing” (i.e., “the frustration and disillusionment some teachers may experience over the course of their tenure in the classroom…that…usually
happens to teachers in mid-career” (p. 14)) and teacher expertise. Finally, he concludes by casting professional development in the form of reflective groups as “professional self-development” [emphasis added]; that is, a practice in which “teachers are not struggling with any complex problems in their work, nor do they seek any qualification; what they do seek is a self-initiated understanding of themselves as teachers of a complex subject in a complex environment” (p. 152). Each of the nine chapters is summarized in turn in the paragraphs that follow.

In the book’s opening two chapters, Farrell anchors his study in the literature on professional development and reflective practice. To begin, he defines and draws distinctions among several important terms related to teacher professional development, including top-down, bottom-up, training, development, and plateauing. He then mentions foundational research on teacher development cycles (stages), highlighting the mid-career cycle, as it pertains to the teachers with whom he collaborated. Evoking Dewey’s writings on reflective practice, he takes the position that teachers should not let others tell them how to teach; rather, they should determine how to teach themselves by engaging in evidence-based reflective practice. In chapter two, he makes a distinction between informal/incidental and formal/evidence-based forms of reflective inquiry, noting that the latter stimulates teacher growth. He identifies teacher reflection groups and journal writing as fertile modes for evidence-based reflecting, with the premise that group reflecting is more effective than solo reflecting (Richards & Farrell, 2005) and that journal writing includes “built-in stoppage” (p. 41); that is, the ability to further reflect on a thought after it has been written down. The chapter closes with a list of assumptions about reflective practice (e.g., it involves problem-posing), in addition to criticisms leveled against it (e.g., does it actually foster student learning?).

In chapters three and four, Farrell introduces us to the voices of his participants. Chapter three contains a recounting of three principal topics of discussion: school context, perceptions of self as teacher, and learners. For example, the teachers expressed frustration over their administrators’ lack of understanding of their work. According to Farrell, the teachers developed greater awareness of their teaching via discussions and were able to find “renewal” in their teaching, faced with plateauing. Farrell organizes chapter four similarly to chapter three, presenting three principal topics about which the teachers wrote: teaching approaches and methods, evaluating teaching, and perception of self as teacher. He notes that the teachers generally reflected more deeply in their writing than in group discussions. This observation would seem to relate to his claim that “the act of writing slows down our thinking so that we are in more control than when we are speaking” (p. 72).

Where Farrell organizes chapters three and four around mode of reflection, he organizes chapters five through seven around various teaching-related constructs. At the beginning of chapter five, he claims that teachers must be aware of their beliefs and of the manifestation of their beliefs in practice in order to grow. He then elaborates five sources of beliefs expressed by his participants: teachers’ personality, teaching methods, established practice,
experience of what works best, and experience as language teachers. In chapter six, he relates the participants’ sense-making of their roles, which he organizes into three role-identity meta-categories: teacher as manager, teacher as “acculturator” (a teacher “who engages in activities outside the classroom and that help [sic] students become accustomed to the local culture” [p. 97]), and teacher as professional. Each of these meta-categories contains sub-identities, such as entertainer (related to manager), social worker (related to “acculturator”), and collaborator (related to professional). As with beliefs, Farrell claims that teachers need to develop an awareness of their role identities so that they “can start the process of trying to figure out who they are and who they want to become as they continue their careers as reflective practitioners” (p. 107). To conclude this section, Farrell uses a narrative inquiry framework (McCabe, 2002) to examine two critical incidents: the first pertaining to negative feedback and the second pertaining to evaluation and feedback. Oddly, the examples he provides come from dealings with students in TESL (teaching English as a second language) classes rather than from ESL classes; it was not previously mentioned that the three participants taught TESL classes in addition to ESL ones at the time of data collection.

Chapters eight and nine (re)visit the concepts of plateauing and teacher expertise in light of the participants’ experiences. In the former, Farrell explains common causes of plateauing (e.g., teacher longevity), noting that reflection groups can be helpful in preventing it. He then explores several considerations related to setting up and maintaining reflection groups, ranging from assigning group roles to setting discussion topics. In the latter, after relating current definitions of teacher expertise, he demonstrates five ways in which the participants deployed their expertise (knowledge of learners and learning, engage in critical reflection, access past experiences, informed lesson planning, and active student involvement), while making it clear that “teaching experience does not automatically translate into teacher expertise unless teachers consciously and actively reflect on these experiences and engage in deep exploration of their practices at various times throughout their careers as ESL teachers” (p. 150).

On the whole, Farrell has authored a well-organized, readable, and accessible text, with broad appeal to teacher educators, teacher leaders, and those invested in forming teacher reflection groups. There are some limitations to the work, however. First, I find it to be unevenly theorized. Although Farrell identifies continued professional development (Kiely & Davis, 2010) as his principal theoretical framework in the introduction, he does not return to it while discussing his data. One is also left to wonder if continued professional development really qualifies as a theoretical framework. Second, I am unsure that Farrell achieves his goal of putting his participants’ voices first. Does he not process their interpretations through his own lens, much like other qualitative researchers do? What about this study puts participants’ voices “first”? Is it even possible to do so in research of this sort? Finally, there are several typos in the work that make reading at times jarring.
Despite these limitations, *Reflective Practice in ESL Teacher Development Groups: From Practices to Principles* makes a positive contribution to the field of language teaching and teacher education, most notably in its ability to scaffold reflective practice for teachers who wish to refresh their teaching and in helping administrators to understand the complex nature of ESL teachers’ work.

**REFERENCES**


Reviewed by MINA LEE
Defense Language Institute Foreign Language Center

This volume is a collection of papers by participants of the 1st Conference on Creativity and Innovation in Language Studies (CILS), held at the Language Centre of the University of Calabria in Italy in December 2009 -- the European Year of Creativity and Innovation. The editor states that the conference “highlighted the value of Creativity and Innovation in Language Education as a key issue for the development of personal, professional and social competences” (p. 13). The chapters in the volume explore the concept of creativity and innovation in different contexts of language education. The volume is divided into four sections: 1) Creativity, Cultures and Languages Use, 2) Creativity and Language Teaching, 3) Creativity and Business Settings, and 4) Creativity and Technology. Each section contains 3-6 chapters. Most practices and studies in the volume were done in Europe, with a majority in Italy. In other words, they may be more relevant to language education in the European setting.

Section 1, Creativity, Cultures and Language Use, consists of three chapters where authors invite readers to consider changes of language use, caused by constantly shifting cultures and societies. Chapter 1 describes characteristics of the advertising discourse and benefits of using advertisements in language learning. Chapter 2 studies the impact of peer learning. The study was conducted in a French as a second language teacher preparation course in Canada. It focuses on teachers’ creativity in meeting the needs of students with different ethnic backgrounds, learning styles, and personal experiences. Chapter 3 discusses the concept of “nation” and the growth of a national language; traces the history of establishing English as a standard language in the British Isles as well as the present-day language changes in Italy; and cautions that support of standardization or anti-standardizations should be based on extensive in-depth study. Chapter 3 provides a historical account of changes in British English and Italian and does not convey pedagogical implications per se.

Section 2, Creativity and Language Teaching, contains five chapters on the pedagogical aspects of language learning. The chapters emphasize the importance of encouraging the creativity of learners throughout the learning process. Chapter 1 shows the development of a plurilingual model to be systematically integrated into the language curriculum at all levels. This model may be more applicable to European societies where multi-languages and multi-cultures are part of the societies than to a language program with predominantly native English speakers, such as the Defense Language Institute. Nonetheless,
benefits of asynchronous teaching of multi-languages are worth considering in a language class.

Chapter 2 is on learner autonomy and multiple intelligences in vocabulary learning. Rather than relying solely on memorization to learn vocabulary, students were encouraged to rely on multiple intelligences. The author noted, “Activities should be interesting, useful and stimulating, but at the same time they should prompt the learners to become more aware of their own learning styles, i.e. the strategies they instinctively choose and the reasons for this choice, as this awareness and the related ability to judge how effectual these techniques are will lead to the students taking responsibility for their own personal learning processes, and in the long term will provide them with the basic skills for lifelong learning” (p. 112). The author implemented the concept of learner autonomy through four stages: 1) organizing notes with multiple intelligence; 2) peer teaching; 3) self-reflection; and 4) follow-up: discussion. The chapter offers valuable ideas of multiple intelligences and learner autonomy to language educators.

Chapter 3 describes a project of applying corpus analysis in teaching. By using Wordsmith 5.0, CANCODE spoken corpus and the Cambridge International Corpus for written general English, frequently used words and clusters were identified and used in students’ creative writing assignments. A simple corpus analysis can benefit many foreign or second language classrooms. For example, students can run the program with news articles on one topic, identify vocabularies and clusters, and recreate a news article.

Chapter 4 depicts using films as an instructional and learning tool in a language classroom. Using films in language teaching is not something new; in this regard, the chapter does not offer any novel ideas. Chapter 5 analyzes Focus on Form (attention to linguistic elements) vs. Focus on Forms (attention to grammar) in grammar teaching, and implicit vs. explicit learning through a study of the different learning styles preferred by Chinese and Italian cultures. The organization of the chapter is rather incoherent and the writing imprecise.

Section 3, *Creativity in Business Settings*, focuses on intercultural communication in the business sector. The first three chapters show examples of business language classes. Chapter 1 introduces two online tools, using a blended format of virtual and face-to-face instructions. It discusses the importance of the blending method. Chapter 2 illustrates a Content and Language Integrated Learning (CLIL) approach in a course that focuses on business language, intercultural competence, and actual practices in the target culture. In Chapter 3, the author emphasizes the benefits of instruction that integrates authentic resources, such as metaphors and TV shows (The Apprentice, Dragon’s Den), in a business setting.

In Chapter 4, based on the literature review and scientific study results with brains, the author claims that “concept-first and terminology-later approach to science instruction is much more effective, especially when conceptual learning is scaffolded upon familiar experiences and a constructivist knowledge-acquisition processes is adopted” (p. 231). The chapter provides a scientific background of why building students’ cultural and other schemata is important.
for language learning. According to experiments mentioned in the chapter, our brain is activated and a large electrophysiological response is recorded when things do not make sense, which is called N-400 response. Based on the experiments, the author suggests that teachers should avoid approaches that evoke N-400. Learning materials need to integrate content and language, because difficult vocabulary learned without a context will not be stored in the long-term memory.

The last chapter of Section 3 explains that Italian students learning English as a Second language can find a valid starting point to further explore foreign lexis by studying non-adapted (lack of morphological or syntactical adaptations) Anglicisms. This approach may be more relevant to students whose native language is similar to the L2 they are learning. As the author points out, this approach can cause misapplication of one rule to another and add confusion, unless the comparative study of non-adaptive Anglicisms and their etymons is carefully done.

Section 4, Creativity and Technology, comprises six chapters on creativity of using technology in a language classroom. The first chapter examines blended learning modules in the Erasmus Intensive Language program, where about 160,000 students per year from 31 countries participate. The program uses three modules to train students: face-to-face learning (teacher-centered), blended learning (student-centered, autonomous work), and a language and local culture immersion module. A case study showed that students were motivated by the blended learning approach, because it focused on each student’s language needs and cultural interest. It demonstrated that individualized teaching tailored to meet students’ needs and interests enhanced students’ motivation in language learning.

The next three chapters discuss technology tools that have been widely used in foreign/second language classrooms. Chapter 2 reviews the pros and cons of using Wikispaces as a collaborative online tool for language classes. Chapter 3 introduces Web 2.0 tools embedded within Moodle -- a web-learning platform, and emphasizes the importance of understanding the relationship between the L1 and L2 communities through intercultural education. Chapter 4 shows using online news as a didactic source. Because there has been rapid development in using technology as a language learning/teaching tool since 2009 when the conference was held, information conveyed in these chapters is somewhat outdated to those who have been working with technology. Still, the information may be helpful to those who are new to these technology applications.

Briefly discussing Data Driven Learning (DDL), Chapter 5 maintains that approaches like DDL provide new ways to exploit linguistic corpora. The author also introduces some corpora-based activities and tasks on the Moodle platform. Chapter 6 discusses the project of an online Swahili literature course, which was created using the Moodle platform to provide asynchronous feedback of translation tasks to student. A sample of a teaching unit is presented, which may help those who are interested in developing an online course.
With globalization and development of new technology, teachers and students have many more pedagogical and technological options to choose from. It is crucial to choose the right tool for a specific context. In recent years, the language education field has innovated many effective ways to utilize the available resources to enhance learning. As highlighted in several chapters, teachers’ creativity is crucial in meeting students’ needs, encouraging students’ creativity, and making learning more effective. In this regard, the volume once again demonstrates the power of creativity because it motivates us to explore new possibilities in language education. However, because the volume is a compilation of conference presentations, the link between chapters is rather weak; even within one section the topics of the chapters are loosely connected. Another weakness is that the volume was published in 2012, but the conference was held in 2009. Technology develops quickly, as do educational practices assisted by technology. Some “innovative” ideas in 2009 are no longer fresh; and some are outdated. Even with these weaknesses, this volume still serves as a good reference book for those who desire to use a creative method in teaching.
ALL INDEX

Articles


DeSantis, Paulina. (2008). Text Enhancement and the Acquisition of English Verbal Inflection -s by L1 Haitian Creole Speakers. 18(1 & 2). p. 27.


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.


Reviews


Editorials


Interviews


News and Views

UPCOMING EVENTS 2014 - 2015

2014

MAY


JUNE


JULY

July 8-11 American Association of Teachers of Spanish and Portuguese (AATSP) Annual Conference, Panama City, Panama. Information: https://aatsp.site-ym.com/.


NOVEMBER


2015

JANUARY


January 8-11 American Association of Teachers of Slavic and East European Languages (AATSEEL), Vancouver, Canada. Information: www.aatseel.org.

MARCH

March 5-7 Southern Conference on Language Teaching (SCOLT), Atlanta, GA. Information: www.scolt.org.

March 12-14 Central States Conference on the Teaching of Foreign Languages (CSCTFL), Minneapolis, MN. Information: www.csctfl.org.


**APRIL**


**MAY**


**JUNE**


**JULY**

INFORMATION FOR CONTRIBUTORS

Submission Information for Authors

Aims and Scope

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.

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; and (5) assessment of needs within the profession.

Specifications for Manuscripts

Prepare the manuscripts in accordance with the following requirements:

• Follow APA style (the 6th Edition) – the style set by the American Psychological Association;
• Not exceeding 6,000 words (not including reference, appendix, etc.);
• Use double spacing, with margins of one inch on all four sides;
• Use Times New Roman font size 12;
• Number all pages consecutively;
• In black and white only, including graphics and tables;
• Create graphics and tables in a Microsoft Office application (such as Word, PowerPoint, Excel);
• Graphics and tables should be in Times New Roman font;
• Graphics and tables should not exceed 4.5” in width;
• Do not use the footnotes and endnotes function in MS Word. Insert a number formatted in superscript following a punctuation mark. Type notes on a separate page. Center the word “Notes” at the top of the page. Indent five spaces on the first line of each sequentially-numbered note; and
• Keep the layout of the text as simple as possible.
Submission Requirement

*Applied Language Learning* publishes only original works that have not been previously published elsewhere and that are not under consideration by other publications.

Each submission must contain (1) a title page, including author information; (2) abstract of the article; (3) five key words; and (4) manuscript, including references.

Send all submissions electronically to the Editor: jiaying.howard@dliflc.edu.

Review Process

Manuscripts will be acknowledged by the editor upon receipt and subsequently sent out for peer review. Authors will be informed about the status of the article once the peer reviews have been received and processed. Reviewer comments will be shared with the authors. Once an article has been accepted for publication, the author will receive further instructions regarding the submission of the final copy.

Correspondence

Send all inquiries and editorial correspondence by email to the Editor: jiaying.howard@dliflc.edu.

Guidelines for Manuscript Preparation

*Research Article*

Divide your manuscript into the following sections, in the order listed below:
1. Title and Author Information
2. Abstract
3. Key words
4. Text body, including:
   • Acknowledgements (optional)
   • Notes (optional)
   • References
   • Tables and figures (optional)
   • Appendixes (optional)
**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, audio-video materials, computer and mobile applications, 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.

**Commentary**

*ALL* invites essays that exchange ideas and views on innovative foreign language education; and comments on matters of general academic or critical interest or on articles in previous issues. Essays should not exceed 2,000 words.
CALL FOR PAPERS

*Applied Language Learning*, a refereed journal published semiannually by the Defense Language Institute Foreign Language Center and Presidio of Monterey, is soliciting articles for publication.

The Journal (*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. The journal seeks to serve the professional interest of language teachers, administrators, and researchers concerned with the teaching of foreign languages to adult learners. We welcome articles that describe innovative and successful practice and methods and/or report educational research or experimentation.

Please refer to Specifications for Manuscripts (p. 111).

All manuscripts should be electronically submitted to the Editor: jiaying.howard@dliflc.edu.

**Deadline:** Submissions are welcome at any point. Manuscripts received by 31 January will be considered for the spring issue and by 31 July for the fall issue of the journal.
THANK YOU

*Applied Language Learning* relies on expert reviewers for quality of the journal. Special thanks go to the individuals listed below, who served as reviewers of manuscripts for the current issue. The publication of *Applied Language Learning* was made possible with their generous support.

Wendy Ashby  
Tsengtseng Chang  
Hyekyung Sung-Frear  
Teresa Gryminska  
Eli Hinkel  
Gordon Jackson  
Jason Martel  
Rebecca Oxford  
Susan Steele  
Rong Yuan  

Steven Berbeco  
Martine Danan  
Luba Grant  
John Hedgcock  
Gary Hughes  
Lisa Leopold  
Scott McGinnis  
Maria Parker  
Jurgen Sottung  
Lidia Woytak