

APPLIED LANGUAGE LEARNING



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National Museum of Language **Is Born**

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The Museum is in the very early stages of planning and welcomes inquiries, suggestions and ideas from both home and abroad. All correspondence, including requests to be put on the mailing list and for brochures, should be addressed to:

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Lidia Woytak
Editor

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Guest Editorial

Language Skills and Joint Vision 2020

Arthur L. Money

*Assistant Secretary of Defense for
Command, Control, Communications and Intelligence*

The stated purpose of the recently published Joint Vision 2020 (JV 2020) is “to describe in broad terms the human talent...and operational capabilities that will be required for the joint force to succeed across the full range of military operations and accomplish its mission in 2020 and beyond.”

The concepts expressed in JV 2020 provide the basis for articulating and documenting DoD needs for a professional, well-trained, and ready foreign language workforce drawn from the active, reserve, and retired military; from civilian employees; and from contract services. Related planning documents provide clear guidance that foreign language skills and area expertise are integral to or directly support every foreign intelligence discipline and are essential factors in national security readiness, information superiority, and coalition peacekeeping or warfighting missions.

Experienced language and area specialists will be an increasingly valuable asset on the commander’s staff at all levels of military operations. The ability of our Joint Forces to understand and communicate in languages other than English has become increasingly important as the US national strategy of global engagement has evolved. Multinational operations demand the ability to evaluate and employ information in a multinational context. Building coalitions for a range of operations from humanitarian to warfighting requires awareness of the culture and knowledge of the political-military realities of the coalition partners. Such awareness is best gained through a sound working knowledge of the language of the partners. Similarly, the Commander’s ability to achieve information superiority will be directly dependent on the professional foreign language and area specialist staffs in military intelligence, psychological operations, and liaison with coalition partners.

The Defense Foreign Language Program (DFLP) Strategy 2000, as approved by the DFLP Policy Committee in May 2000, outlines the goals and objectives that will guide the development and maintenance of the professional foreign language workforce to meet the challenge of JV 2020. The DFLP Strategy 2000 has eight goals:

1. Establish a coherent DoD policy and program for generating operational language support requirements in five categories: active, reserve, and retired military; civilian employees, and contract services.
2. Target and coordinate linguist recruiting and outsourcing activities.
3. Update policy, strategic planning, and program guidance for all DoD foreign language education and testing programs, including Defense Language Institute Foreign Language Center (DLIFLC) operations and infrastructure.
4. Create DoD-wide Civilian Language Specialist Career Tracks.
5. Define Military Language Specialist Career Tracks.
6. Develop a coherent and coordinated DoD language technology program.
7. Publish guidelines and standards for outsourcing language instruction, translation, and interpretation services.
8. Promote a DoD outreach program stimulating national public and leadership awareness of language as a national security and readiness factor.

The DFLP Policy Committee, supported by the Office of Assistant Secretary of Defense (C3I) as well as Service and Agency language program offices, is reviewing the processes used at all organizational levels from Combatant Command strategic planning and contingency responses to validation by Service Headquarters in order to define operational language requirements. The same review will also look at how these requirements support force structure planning and programming by appropriate Office of Secretary of Defense (OSD) staff elements.

At the same time, a Joint Staff Readiness Team has been conducting an assessment of reported shortfalls and the requirements determination processes of the Joint Commands. The Joint Requirements Oversight Council has issued instructions to the Commands and Service components of the Commands to ensure that detailed linguist requirements for force structure planning and programming are produced as a part of the recurring force review. Future updates to policy and programming generated by the review process will result in a report to the Secretary of Defense on the state of DoD foreign language capabilities.

Concurrent with these efforts to improve our programming for language support, we are also focusing on improving the capabilities of the DLIFLC to support the armed services with basic and continuing language education. Recognizing the unique and vital role that the DLIFLC has played for over fifty years, DFLP Strategy 2000 goals have been set to improve the Center's capacity for providing:

1. The best-possible basic language education delivered by professional faculty in accredited programs.
2. Skills enhancement education to all military language specialists through a combination of resident and distance learning programs.
3. Distributed language learning via the world-wide web and internal DoD digital networks.
4. Biannual Diagnostic Assessment “check ups” for field linguists.
5. On-line and on-call mentoring for language specialists in the field.
6. Current automated proficiency and performance tests and assessment systems for use throughout the armed services.
7. Language translation and interpretation services with on-line and on-call access from remote locations.

The actions taken to achieve these goals are intended to maintain and enhance DLIFLC position as the leading center of excellence in foreign language education in the U.S. and abroad.

Technology will be a key factor in enabling the DoD language specialists to perform at their best. On-line dictionaries and other lexical aids will be made available across organization lines by use of secure or controlled-access digital networks including the Internet. Tutorial materials covering the language and jargon used in specialized domains such as coalition building, cooperative threat reduction, and anti-terrorist activities will be embedded at the workstation by means of CD-ROM and online update.

Mentoring and direct assistance in translation at the workstation will be provided by master and expert language specialists and scholars from academe in synchronous and asynchronous connectivity. Interpretation services will be provided from centers such as the DLIFLC to deployed operational forces via Internet or satellite telephonic connection.

In the collection (or import) of information, computer-based (machine) translation will be used to filter and point to foreign language texts of value in intelligence production. Computer-based translation may also be used for scripted and limited communication with members of a military coalition that do not speak English. Automated phrase translation tools may be scripted, certified for accuracy, and provided to law enforcement, security, medical units, and others for use when no human interpreters are available. However, the educated human language specialist will continue to be the indispensable asset in all communication with friendly and hostile foreign forces and in collecting and producing the intelligence needed for information superiority.

OSD and the DFLP Policy Committee recognize the importance of partnerships with the Department of Education, Department of State, and other government entities with interests in the foreign language field. Furthermore, our capability to improve DoD foreign language posture is to a large extent dependent on the capability and capacity of the national language programs operated in the kindergarten through secondary school systems. Recent studies indicate that early learning of a second language may facilitate learning of other languages in later years. Therefore, effective dual-language and two-way language immersion programs in the early education years can provide the foundation for more rapid and facile language acquisition by personnel enrolling later in DLIFLC programs. The DFLP Strategy 2000 provides for an outreach program to educate the US public as to the importance of foreign language learning and to strengthen partnerships within the framework of the Interagency Language Roundtable and other national forums.

In conclusion, I wish to commend the faculty, staff, and leadership of DLIFLC for their outstanding and often unrecognized performance in providing the best language education possible to the armed services and to the nation. Your can-do and selfless performance is appreciated by DoD leadership today as never before. Your continued excellence in teaching and other language support to the DoD missions is and will continue to be an essential ingredient of the Defense Foreign Language Program and US national security readiness.

Varieties of Conversational Experience Looking for Learning Opportunities

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This study explores variations in the performance of one nonnative speaker in three different conversations with friends. The chief difference between the conversations is that the interlocutors use different interactional features which we relate to their differing levels of proficiency in English. Various features of the conversations are examined, and the analysis suggests that the interlocutor's level of proficiency, relative to that of the subject, influences in significant ways the conversational options and behavior of the subject. The notion of conversational symmetry is examined, and it is distinguished from equality. It is suggested that symmetry leads to the use of a wider range of conversational features, and the likelihood of deeper processing, because of the increased contingency between utterances. This brings into question the frequent assumption that nonnative speakers benefit most from conversations with native speakers or with interlocutors whose level of proficiency is higher.

Second language learners of English frequently experience fluctuations in their proficiency. On some occasions they can handle English almost without any problems. The desired words or phrases just appear and arrange themselves effortlessly into error-free utterances. In the terminology of Csikszentmihalyi (1990), we can say that they are "in flow." On other occasions, however, these same learners stumble over their words, cannot find the right expression or take a long time to do so, and produce utterances which, in their own words, are "full of mistakes."

Some of the factors which may influence variations in interlanguage performance readily suggest themselves, such as differences in *interlocutor* (age, level of familiarity, social roles and status, etc.) and *setting* (location, the contents and purpose of the conversation or task, etc.). In addition, physical and psychological conditions such as fatigue, excitement, fear, etc., may play a role in fluctuations in performance. However, regardless of their potential relevance, these common-sense rationalizations of variation are in need of close empirical scrutiny, for several reasons. First, second language (L2) learners may be helped by an awareness of the factors that may influence their fluency,

and may want to work on their performance in situations that are important to them. Second, to make assessments of proficiency more effective and fair, a more precise knowledge of the dynamics of interlanguage interaction (i.e., talking in a nonnative language to other nonnative speakers and to native speakers) is necessary. Third, if we take the view that social interaction promotes second language acquisition, then the quality of such interaction is likely to be closely related to the quality of cognitive (including linguistic and pragmatic) processing that accompanies the interaction.¹

This article reports a study undertaken to investigate variations in interlanguage performance in conversations and to look for some of the possible interactional factors that may contribute to it. We were specifically interested in examining various interlocutor factors, i.e., if and how the performance of an L2 learner changes in interactions with interlocutors of different proficiency. After securing the collaboration of a participant, “Yuko,”² we began recording interactions between her and three interlocutors. These interactions were free and unplanned conversations, rather than information-exchange tasks, and they were therefore oriented towards *interactional* rather than *transactional* functions of talk (Brown & Yule, 1983). In interactional talk the main focus is on social relationships or “small talk,” whereas in transactional talk the aim is to exchange information. This may make these conversations different in important ways from the task-based studies of Pica, Young, and Doughty (1987) as well as Loschky (1994) though such differences are not systematically addressed in this article.

The relationships between social interaction and language learning are complex, but all those who espouse a communicative approach to language teaching agree that these relationships are strong and essential. Any effort to try and understand the dynamics of interlanguage talk is therefore of potential interest to language teachers. In this study we focused on various discourse-structural features of three conversations of Yuko with three different interlocutors. Our discourse analyses of the conversations confirm the general point that the circumstances in which language is used have a significant effect on the ways in which language is used. For L2 learners we may add that different circumstances may offer different learning opportunities.

Even though we did not use massive amounts of data or large numbers of learners, we feel that looking at our limited data in some depth has yielded information that a more superficial treatment of a larger database could not have done. We have also combined quantitative and qualitative information to give a richer picture of the interactions we recorded. In this way, we hope that our study will contribute to a better understanding of L2 learners’ interlanguage use in particular contexts.

Negotiation and Interactional Modifications

Features of interaction between native speakers and nonnative speakers (NS/NNS), or nonnative speakers and other nonnative speakers (NNS/NNS) have been studied by a number of researchers (Gaskill, 1980; Schwartz,

1980; Long, 1983; Varonis & Gass, 1985; Porter, 1986; Pica, Young, & Doughty, 1987). As an example, Long (1983) compared various types of NS/NS and NS/NNS interactions and found greater occurrences of modifications of the interactional structure of conversation in the NS/NNS interactions. He identified a range of devices (strategies and tactics) used as interactional resources which are open to native speakers in conversation with nonnative speakers. According to Long (1983), the use of such strategies and tactics

goes some way to making linguistic input comprehensible to the L2 acquirer, as evidenced by the fact that, without them, conversation breaks down; with their use, conversation is possible and is sustained. Nonnative speakers understand and so can take part appropriately (p.138)

Long's argument concerning the provision of comprehensible input by means of a variety of interactional resources is an important one. However, in much subsequent work the range of interactional resources has been narrowed to only those that overtly address communication problems (trouble sources, or "triggers"), or, in other words, various instances of repair. Indeed, negotiation has come to be defined as modified interaction which occurs "when a listener signals to a speaker that the speaker's message is not clear, and listener and speaker work interactively to resolve this impasse" (Pica, 1992, p. 200).

A more organic look at conversational contexts, however, shows that such a repair-driven view of negotiation is insufficient to account for conversational variation, particularly for the notion of flow. Indeed, frequent repair indicates conversational trouble, and more conversational trouble can mean less conversational success (even if individual repairing actions are successful. After all, a journey that proceeds smoothly towards its destination is more satisfying than one which is marred by frequent breakdowns and detours).³

Interactional resources include not only those designed to solve communication problems, i.e., reactive or retroactive repair, but also proactive moves such as topic changes and discourse markers creating expectancies, and concurrent moves indicating understanding, empathy, and so on. Taking a more organic view in this way, we intend to demonstrate that it is *the organization of the conversation itself* that motivates the use of certain "devices and interactional resources." We will show that the organization of a conversation is, to a considerable degree, determined by the participants' level of proficiency relative to one another, and the resulting discourse structure constrains the use of varying types and frequencies of interactional resources. In more general terms, of course, other kinds of inequality (e.g., social inequality) will also affect conversational organization. Moreover, as Long also suggests in a footnote (1983, p. 139), it is not only NS who utilize these "devices or interactional resources," but NNS as well. Our data show, for example, that the

subject, Yuko, uses devices similar to those used by an NS in a conversation with an interlocutor whose proficiency level is lower than hers. On another occasion, in a conversation with a speaker who has a higher level of proficiency, she does not use those same devices, but her interlocutor does. We will attempt to show that the extent to which interlocutors use what Long calls “devices or interactional resources,” is determined, or at least influenced, by the overall organization of the conversation. This organization itself is to a significant degree determined by degrees of equality or inequality in the interaction, brought about in this case by differences in the relative proficiency level of the participants.⁴

Equality and Symmetry in Conversation

Above we spoke primarily of conversations in which participants had different proficiency levels. When proficiency levels are more or less equally matched, different organizational features emerge. Varonis and Gass (1985) looked at the negotiation of meaning in NNS/NNS conversations (with NS/NS and NS/NNS dyads as controls) and considered the proficiency factor in them. They said about native speakers (NS/NS):

When the interlocutors share a common background and language, the turn-taking sequence is likely to proceed smoothly, reflecting what Jones and Gerard (1967) call a “symmetric contingency,” each speaker responding to the utterance of the previous speaker, while maintaining her own sense of direction in the discourse. (p. 72)

They suggested that, on the other hand, NNS/NNS discourse, especially when the NNS are of different language backgrounds and different proficiency levels, requires a greater amount of negotiation work (in the reactive, repairing sense) than either NS/NS or NS/NNS discourse. Our findings are consistent with those of Varonis and Gass, with the addition that, in our data, equally matched nonnative speakers can achieve a level of symmetry (or “symmetric contingency,” in Jones & Gerard’s terms) in their conversations which sharply reduces the need for interactional modifications (or “negotiation work”). Whether this is beneficial to interlanguage development (e.g., whether learners can “bootstrap” off each other’s utterances, or whether it leads to the type of “classroom pidgin” Hammerly (1991) and others warn about), is a matter for further investigation.⁵

The notions of equality and symmetry in conversation are of considerable importance for an understanding of negotiation and interactional modification. Before we look at various aspects of negotiation in more detail, it will therefore be beneficial to elaborate on equality and symmetry first.

We will use the term *equality* to refer to relations between interlocutors in terms of (a) social status or role, (b) competence in some relevant knowledge

domain or skill, (c) proficiency in conversational language use, and (d) any other source of authority or power.

On the other hand, *symmetry* refers to structural relations between the utterances of interlocutors in a conversation. Symmetrical utterances show mutual orientation and dependency, a sharing of conversational rights and duties, and a convergence of perspectives (including even the elucidation of disagreements).

Equality and symmetry are therefore not the same. Unequal partners can achieve a symmetrical conversation, and equal partners (in all relevant respects) may have an asymmetrical conversation. The aim of any conversation (as opposed to certain other speech events, such as interviews, communication tasks, or lectures) is to achieve symmetry. To the extent, therefore, that people who are unequal in some respect can fruitfully engage in conversation, conversations between unequals can be symmetrical.⁶

This point is crucial for the study of interaction by NNS. If the achievement (and subsequent maintenance) of symmetry is the goal (and shared responsibility) of an NNS in conversation, then this goal may be more or less difficult to achieve, depending on the other interlocutor(s). For example, if the other interlocutor is an NS, then it might be very difficult for the NNS to contribute to achieving symmetry, since the gap in terms of interactional resources is so great. The NS in that situation might overcompensate and thereby contribute further to asymmetry. Likewise, when the NNS is more proficient than the interlocutor, she might also find that her resources are unequal to the task of promoting symmetry. As a result, NNS tend to get into situations in which asymmetrical conversations dominate, and this circumstance may put particular strains on their communicative resources. By investigating the structure of a variety of NNS conversations, it may be possible to identify the circumstances which account for fluctuations in conversational fluency, and with such knowledge we may help learners to promote those factors which make conversation into positive experiences rather than negative (even traumatic) ones.

The Study

In this study, some of the features of the interactions between Yuko and three different interlocutors with different proficiency in English are examined. Yuko knew all three interlocutors quite well. In the first Conversation, A, Yuko talked with an interlocutor (Lina) who was more proficient. In the second Conversation, B, she had a conversation with an interlocutor (Vera) whose proficiency in English was about the same as her own. In the last Conversation, C, Yuko interacted with an interlocutor (Inga) who was less proficient. Our primary purpose in this paper is to describe the differences that exist in those three interactions in terms of the organization of the interaction.

Yuko is a 24 year-old Japanese female enrolled in an intensive English as a Second Language (ESL) program. She came to the U.S. about three months before the beginning of the research to study English. She had been to the U.S.

twice before, once spending two months with an American family, and another time attending an ESL winter session at a community college. Her purpose for studying English was and continues to be to gain the proficiency she needs to enroll in a community college.

Yuko is very active, outgoing, and eager to try anything. She says she likes to talk and that she talks a lot, especially in her native language. Her conversation with people features rich body movements, gestures, and facial expressions.

The conversations were tape-recorded on different days within a one-month period. They were approximately 25-30 minutes long. On each occasion, the conversation between the subject and the interlocutor was spontaneous; i.e., there were no fixed topics or guidelines suggested. The subject and the interlocutors were left by themselves to say whatever they wanted to say with the tape-recorder running.⁷

The interlocutors, Lina, Vera, and Inga, were all nonnative speakers of English. They were females and about the same age as the subject. They all knew each other quite well and were on informal, friendly terms with one another. The first conversation, A, was recorded on Oct. 8. Lina was technically a nonnative speaker, but her English was completely native-like. She was doing her teaching practicum in Yuko's ESL class. The second conversation, B, was recorded on Oct. 22. Vera was a student from Thailand who started to study English in the ESL Program at the same time as the subject did. She was in the same speaking and listening class (Level 3) in the ESL program as the subject (determined by the assessment of speaking and listening ability at the beginning of the program). Therefore, she and the subject were judged to have roughly the same proficiency level in speaking and listening. The third conversation, C, was recorded on Nov. 7. The interlocutor, Inga, was from Korea, and she also started the program at the same time as the subject. She was in the Level 1 speaking and listening class in the program, and we judged her proficiency in speaking and listening as being lower than Yuko's.

To sum up, then, our database was as follows:

conversation A:	interlocutor more proficient	(Y < L)
conversation B:	interlocutor equally proficient	(Y = V)
conversation C:	interlocutor less proficient	(Y > I)

Comparison of Conversational Features

The three conversations (A-C) were examined in terms of the following features (the results are summarized in Table 1):

1. turn-taking (the number and length of turns taken by each interlocutor);
2. topic (the number and the duration of topic units in each (interaction as well as the initiators of topic changes);

3. markers of dominance of the interaction (which interlocutor was dominant in each interaction) as judged by (see Table 2):

- a. controlling turns (eliciting turns)
- b. back-channeling turns
- c. overlapping turns.

4. communication strategies (for the number of communication strategies of each participant see Table 3) such as:

- a. comprehension checks
- b. clarification requests
- c. confirmation checks
- d. appeals for help
- e. offers of help.

Table 1. Turn Taking

conversation interlocutors	<i>A</i>		<i>B</i>		<i>C</i>	
	Y	L	Y	V	Y	I
# of turns	123	128	224	224	212	203
words per turn	7.0	4.9	3.5	6.0	5.9	5.0
topic changes	2	8	4	3	12	3
topic shifts	1		10		0	

The three conversations were approximately about the same length (25 minutes). In Conversation A, Yuko had 123 turns and Lina had 128 turns. In this study, turns were defined as changes of speakers, and backchannels were included. Since this was a dyadic conversation, turns were taken, by definition, alternately. Although theoretically, both participants in a dyad must take an identical number of turns, Lina in this case ends up with some extra turns, since she started and finished most topic units in the conversation. Such topic units are in Conversation A often (though not always) marked by a brief silence (a few seconds), as well as other boundary markers. Lina took the initiative to start and finish most of these topic units. An example of such a topic change follows:

Ex. 1 - Conversation A⁸

301	Y:	But—my favorite program is “Who’s the Boss?”
302	L:	Yeah, yeah... Tony. ((laughter))
303	Y:	((laughter)) I like very much
304	L:	uhuh.
305	Y:	Yeah.
*306	L:	Good.
307		((brief pause))
*308	L:	How are your other classes going?

In Conversation B, the numbers of the turns taken by both Yuko and Vera were the same. This indicates that the turns in the conversation were truly taken alternately. There were some occasions that one of the speakers ended one topic unit and started the next one, but, unlike Conversation A, both speakers did so in equal measure in Conversation B. Also, the total number of the turns in this conversation ($n=448$) is much greater than in the Conversation A ($n=251$), with turns in B being generally shorter than those in A.

In Conversation C, Yuko took 212 turns and Inga took 203 turns. Here, again, there was some asymmetrical turn-taking structure. This time, in contrast to Conversation A, Yuko started and finished most of the topic units in the conversation. An example follows:

Ex. 2 - Conversation C

-
- | | | |
|------|----|---|
| * 89 | Y: | What do you want after—what do you do—what do you |
| 90 | | want to do after ESL? |
| 91 | I: | I want to—enter the MPC |

(Further talk about plans and tests before entering MPC, a local community college)

- | | | |
|-------|----|-----------------------------------|
| 126 | I: | I—this is my own new plan. |
| * 127 | Y: | Hmm. That's good. |
| 128 | | ((brief pause)) |
| * 129 | Y: | What do you want to study at MPC? |
-

Topic Change and Shift

Topic was defined in this study as a clearly noticeable content orientation of a particular chunk or *subunit* in a conversation. On some occasions topics were marked rather clearly, using topic change markers such as “Well, by the way...” or “um, anyway...” but on many occasions they were not verbally marked. When they were unmarked, we judged the topic changes in the conversation on the basis of two criteria. One was a purely intuitive sense of topic coherence and change, and the other was the occurrence of brief silences between turns and/ or the occurrence of successive turns taken by the same person, as in the two examples above. Another clear example follows:

Ex. 3 - Conversation A

-
- | | | |
|----|----|----------------------------|
| 25 | L: | I don't know. |
| 26 | Y: | ((laughter)) I don't know. |
| 27 | L: | What does it do? |
| 28 | Y: | Um—like a calculator |
| 29 | L: | Uh-huh. |

- 30 Y: count
 31 L: Hum. O.K.
 *32 ((a brief silence))
 *33 L: Did you work for a company, or...?

We judged in this instance that the old topic ended with line 31 and that line 33 marked the beginning of a new topic.

In Conversation A there were 10 topic units, 8 of which were initiated by Lina and 2 by Yuko. The topic changes initiated by Lina were all accomplished by Lina asking questions, whereas the two topic changes initiated by Yuko were accomplished by statements. Similar to the interview structure explained in van Lier (1989), it was clear that Lina maintained control over the topics in the interaction by asking questions and evaluating answers.

In Conversation B there were seven topics, three of which were initiated by Vera and four by Yuko. The topic changes were always marked by a rather long period of silence and new topics were mostly (six out of seven) brought about by statements. However, Conversation B, in marked contrast to A and C also shows a number of more subtle topic shifts. As the following excerpt shows, each chunk in the conversation was fairly long and it had several small sub-topics in it. Those sub-topics were not specifically marked as they changed, but rather they just flowed from one into the other, and were collaboratively established (thus we speak of topic *shift*, as opposed to topic *change*).

Ex. 4 - Conversation B

- *64 V: And today—after conversation I I have to go to
 65 buy a bed a bed a be—a mattress
 66 Y: [a bed bed? Where?
 67 V: [Yeah.
 68 Y: Where do you =
 69 V: [I think I I
 70 Y: = Where will you go?
 71 V: Goodwill store =
 72 Y: [Goodwill store
 73 V: = In Seaside
 74 Y: In Seaside?
 *75 V: But I have to—I think I have to be—we have to
 76 ask Kan-chan's xxx
 77 Y: Kan-chan's ((laughter))
 78 V: ((laughter)) Or—his car. xxx He has a big car.
 79 Y: [Ohh. [Big car?
 80 V: Yes.
 81 Y: Truck? xxx
 82 V: [Yes xxx truck.
 83 Y: Uh-huh, oh, it's good.
 84 V: But I don't know he xxx or not.

85	Y:	Maybe—he can he can help you
86	V:	[yeah he is he is
87		always help my sister
88	Y:	Oh, really?
89	V:	yes.
*90	Y:	So—where—does he study now?
91	V:	No.

In the above excerpt, the first sub-topic was “getting a bed,” which shifted (or perhaps “drifted”) into “Kan-chan” (their friend), his car/truck, and then into the “ESL program” (where he was going to study).

In Conversation C there were 15 topic units, 3 of which were initiated by Inga and 12 by Yuko. Each chunk containing one topic was rather short and there appeared to be rather frequent topic changes. Again, as in the Conversation A, the topic changes initiated by Yuko were often (7 out of 12) done by Yuko asking Inga questions. In this interaction, it can be said that Yuko maintained control over the topics by asking questions and evaluating answers in the same way as Lina did in Conversation A (see Example 2 above).

Table 2. Dominance of Interaction

<i>Conversation</i>	<i>A</i>		<i>B</i>		<i>C</i>	
<i>interlocutors</i>	Y	L	Y	V	Y	I
# of turns	123	128	228	228	212	203
# of controlling turns	1 (.8%)	45 (35.1%)	28 (12.2%)	26 (11.4%)	49 (23.1%)	7 (3.4%)
# of backchannelling turns	16 (13.0%)	59 (46.0%)	11 (4.8%)	10 (4.3%)	51 (24.0%)	9 (4.4%)
# of overlapping turns	10 (3.9%)		93 (20.3%)		36 (8.6%)	
# of empathy markers	3 (2.4%)	9 (7.0%)	10 (4.3%)	7 (3.0%)	20 (9.4%)	4 (1.9%)
# of echoic backchanneling	3 (2.4%)	7 (5.4%)	20 (8.7%)	9 (3.9%)	30 (14.1%)	7 (3.4%)

We determined which interlocutor of the two was dominant in the three interactions by examining the number of controlling turns; the number of back-channeling turns; and the number of overlapping turns.

The Number of Controlling Turns

Controlling turns were those turns used by either of the interlocutors to elicit a certain response from the partner, and those turns which actually elicited certain responses and, therefore, controlled conversational structure (e.g., the beginning and ending of topic units). Questions were the most frequently used controlling turns, but imperatives and statements, used to mark topic shifts, were also present, as the following excerpts show.

Ex. 5 - Conversation A

6	L:	Where did you work?
7	Y:	It—this is very—difficult for explain.
*8	L:	Try.

Ex. 6 - Conversation C

263	Y:	or—any kind of job but—now my mind is little
264		bit change
265	I:	About
266	Y:	About—so but I don't know what what do I
267		want
268	I:	Aww
269	Y:	So you know
270	I:	But I I'm—
271	Y:	Um—I worry about—my English xxx so you
272		know.
273		((a few seconds of silence))
*274	Y:	Actually—um—I didn't enjoy very much this
		session.

In Conversation A, Lina used controlling turns much more frequently than Yuko did. In her 128 turns, 45 turns (35%) were controlling turns whereas only 1 out of 123 turns (.8%) of Yuko was a controlling turn. In most cases, Lina's questions were used to change the topic. In Conversation B, both Yuko and Vera used about the same number of controlling turns, but their use was considerably less compared with Conversations A and C. In B, Yuko used 28 out of 224 turns (12%) for controlling and Vera used 26 out of 224 turns (12%). In addition, those controlling turns did not always lead to topic changes. In Conversation C, Yuko used controlling turns much more frequently than Inga did. In her 212 turns, 49 turns (23%) were controlling turns whereas only 7 out of 203 turns (3%) of Inga were controlling turns. Again, similar to the structure in Conversation A, Yuko used these controlling turns in Conversation C as topic changes.

The Number of Backchannelling Turns

Backchannels were usually one-word, short turns such as “uh-huh,” “yeah”. These turns seemed to function as facilitators or encouragers in all three conversations. That is, those short responses served the purpose of keeping the conversation going. In many studies of interaction backchannels tend to be neglected or ignored (e.g., Örestrom, 1983; Pica, Young, & Doughty, 1987). However, following Erickson (1979) and van Lier (1988), we decided to include them as fully constituent utterances. This turned out to be an important decision, since we found that backchannels varied dramatically from interlocutor to interlocutor and from conversation to conversation. In addition, we identified several distinctive types of backchannels, two of which, *empathy markers* and *echoic backchannels*, will be discussed separately below.

In Conversation A, as with controlling turns, Lina used backchannels much more frequently than Yuko did. In her 128 turns, 59 turns (46%) were just one-word backchannelling responses, whereas 16 out of Yuko’s 123 turns (13%) were used for that purpose. Lina’s frequent use of backchannelling clearly had a facilitative function. In Conversation B, both Yuko and Vera used about the same number of backchannelling turns. However, the number of backchannels used by both Yuko and Vera was considerably smaller than in A. Vera used 10 and Yuko used 11 out of 224 turns (5%).⁹ It seems that in this conversation, both interlocutors were busy watching for opportunities to take the floor and neither of them needed explicit encouragement to talk. In Conversation C, Yuko used backchannelling turns much more frequently than Inga did. In her 212 turns, 51 turns (24%) were backchannels whereas only 9 out of 203 turns (4%) of Inga were backchannels. Once again, similar to the structure in Conversation A, Yuko used a great deal of backchannelling to encourage Inga, the less proficient speaker, to talk.

The Number of Overlapping Turns

Overlapping turns were those turns which were begun while the other person was still holding the floor, and as a consequence, two simultaneous turns by both interlocutors occurred. According to Zuengler (1989), interruption (which reveals who “wins” the speaking turn when both interlocutors speak simultaneously) is a measure of dominance in conversation. The number of overlapping turns (including backchannelling turns) was counted in each interaction as shown in the following excerpt. The excerpt below has nine overlapping turns (shown by asterisks).

Ex. 7 - Conversation B

318	V:	But I think here the beach is not beautiful.
319	Y:	Oh, really? (with doubtful intonation)
*320	V:	[Yes. It’s not white. The sun is not white.
*321	Y:	[Uh-uh

- 322 V: And the water—you cannot swim.
 323 Y: I see because yeah! We can swim but
 *324 V: [this water is
 *325 Y: [the water is cold.
 *326 V: [yes.
 327 Y: Really yeah.
 328 V: I think (xxx)
 329 Y: That's why—I don't want to swim.
 *330 V: [But in Thailand swim is very
 331 very =
 *332 Y: [good?
 *333 V: =good. Very.
 *334 Y: [I want to go.

Conversation A had 10 overlapping turns (3.9%: 10/251) in the whole conversation. The length of overlap was usually minimal, which shows that once either of the interlocutors started to talk, the other one withdrew. Conversation B had 93 overlapping turns (20.7%: 93/448) in the whole conversation. Here, as the Excerpt 7 above shows, both of the interlocutors “grabbed the turns.” Simultaneous talk often occurred since neither of them wanted to give up their turn even when the other person interrupted. Conversation C had 36 overlapping turns (8.6%: 36/415) in the whole conversation. This is more than Conversation A, but a great deal less than B. In Conversation C overlaps often happened when Yuko tried to help Inga when she got stuck.

Empathy Markers and Echoic Backchannels

A specific sub-type of backchannels, *empathy markers*, reveals interesting structural differences among the three conversations. By empathy markers we mean brief utterances with marked intonation contours (rise-fall or high-rise—see O'Connor & Arnold, 1973), such as “Wow!,” “Really?,” and “Yeah?” These empathy markers appear to indicate high empathy and solidarity, and in our data they are predominantly used by the more proficient speaker. In Conversation A, Lina used nine clear tokens while Yuko used three. In Conversation B, Vera used 7 and Yuko used 10. In Conversation C, Inga used 4 and Yuko used 20. It is reasonable to suggest that such markers are used by the more proficient partner to encourage the less proficient one. Several examples (underlined) occur in Extract 8 below.

Ex. 8 - Conversation C

- *424 Y: Wow, how long does it take to from here?
 425 I: Ah, ten years about ten years.
 426 Y: [to Korea. About ten years? About ten days?
 427 I: Ten days. ((laughter)) I'm very (xxx)

- 428 Y: Yeah, ten days.
 429 I: [ten days.
 *430 Y: Wow, it's airmail?
 431 I: Yes.
 *432 Y: that's long time.
 433 I: Yes. Very long time. I—
 434 Y: From here to Japan, about it takes about five day—usually
 five days.
 435 or six days.
 *436 I: [Oh, very fast.
 437 Y: Yeah.
 438 I: Very fast. I don't know. I think about seven seven days.
 439 Y: Uh-huh. Uh-huh.
 440 I: One each.
 441 Y: Uh-huh.
 442 I: But another people say ten days.
 *443 Y: Huee.

A second subtype that appears to be structurally relevant is the *echoic backchannel*. As defined by Riggenbach (1991, p. 429), this is a “repetition of another speaker's previous word, phrase, or clause.” In our data, Yuko used this device very little in Conversation A, and a great deal in Conversation C. In Conversation A, Yuko used three echoic backchannels as compared to seven for Lina. In Conversation B, Vera used them 9 times and Yuko 20 times. In Conversation C, Inga used 7 echoic backchannels and Yuko used 30. This indicates a pattern of higher use by the more proficient speaker and lower use by the less proficient speaker. Extract 9 below shows some examples.

Ex. 9 - Conversation C

- 275 Y: Uh-huh
 276 I: Yes, tennis play tennis.
 277 Y: Everyday?
 278 I: I think
 279 Y: Wow.
 280 I: She these days xxx play tennis.
 *281 Y: Play tennis?
 282 I: Yes.
 283 Y: From who? Who teach
 284 I: [I don't know.
 *285 Y: Who teach Eng you don't know.
 286 I: I think I think tennis coach.
 *287 Y: Tennis school, tennis school. Private school or?
 288 I: I don't know. Only she say she learned
 289 Y: Uh-huh.
 290 I: Play piano. aa play tennis.

- *291 Y: Tennis ((laughter)) tennis.
 292 I: ((laughter)) Yeah. And—she say—
 293 Y: Uh-huh.
 294 I: You and Junko and Maya?
 295 Y: Uh-huh.
 296 I: is very good. Very good
 297 Y: Thank you please say hello to her.
 298 I: kind. kind.
-

If we consider empathy markers and echoic backchannels together, the pattern becomes even clearer, and it is reasonable to suggest that more proficient speakers encourage their less proficient interlocutors by producing a relatively large number of backchannels or, put differently, “terms of encouragement.” Since these turns are quite short, and often concurrent with an interlocutor’s longer turn (see van Lier 1988) this means that the more proficient speaker exerts control over the conversation without necessarily producing more talk. Far from being merely passive tokens indicating “I’m still listening,” such backchannels therefore do important controlling and structuring work.

Use of Communication Strategies

Five communication strategies were identified in this study (see Long, 1983). They were:

1. *comprehension check*: an utterance which shows an effort on the part of the speaker to anticipate and prevent a breakdown in communication, such as, “Do you understand?” and “Right?”;
2. *clarification request*: any expression to elicit clarification of the interlocutor’s preceding utterance(s), such as, “I don’t follow,” and “What?”
3. *confirmation check*: any expression immediately following an utterance by the interlocutor which is designed to elicit confirmation that the utterance has been correctly heard or understood by the speaker, such as, “The man?” and “The man, right?”;
4. *appeal for help*: any expression which shows the speaker is having trouble and asking for help, such as, “cal- calcu- calculator?”;
5. *offering help*: any utterance which helps the interlocutor in any way.

The use of these five strategies by each interlocutor in each interaction is summarized in Table 3.

Table 3. Communication Strategies

Conversation	A		B		C	
Interlocutors	Y	L	Y	V	Y	I
a.comprehension check	0	0	0	3	3	1
b. clarification request	0	1	2	4	10	0
c. confirmation check	4	3	7	2	12	7
d. appeal for help	5	1	0	1	1	3
e. offering help	0	4	4	0	10	1

The following excerpt shows examples (underlined) of the strategies listed.¹⁰

Ex. 10 - Conversation C

223	I:	so, I don't I don't I don't think—I don't think but—
224		—um—getting getting—I can't something—um in
225		Korea I—stay—I I can't explain.
226	Y:	hmm.
227	I:	because I don't know ((laughter))
*228	Y:	<u>Words?</u> (OFFER HELP)
*229	I:	<u>Yes. Please.</u> (APPEAL FOR HELP—OR: ACCEPT OFFER OF HELP)
*230	Y:	Another English. <u>Please use another way?</u> (CLARIFICATION REQUEST)
*231	I:	<u>Another way?</u> (CONFIRMATION CHECK) I don't know.
232	Y:	Easy words.
*233	I:	<u>Easy words?</u> (CONFIRMATION CHECK) I think um—ah—you I—I have
234	Y:	[No.
235	I:	I have dictionary. ((laughter))
236	Y:	((laughter)) Ohh!
237	I:	Ah-O, yes. Self suggest suggestion.

- *238 Y: Ahmm. Suggestion? (CONFIRMATION CHECK)
*239 I: Yes. Suggestion. Do you know?
(COMPREHENSION CHECK)
240 Y: Uh-huh. Maybe. I see.
-

In Conversation A, Yuko used some strategies, such as *confirmation check*, and *appeal for help*. The strategies used here were mostly for the subject to check if she understood the interlocutor or not, and to ask for help when she got stuck. The interlocutor Lina used the *appeal for help* strategy once, but it was not actually used for asking Yuko's help. She said:

Ex. 11 - Conversation A

- 191 L: And the offices for TSA are down on—um—what's
192 the name of the street—if you go down on—Jefferson

While she was asking the name of the street, she was talking to herself rather than asking a question, and she kept holding the floor without pausing for an answer.

In Conversation B, Yuko used confirmation checks rather frequently. At the same time, she used clarification requests twice, which she didn't use in A, and offered help four times, which she didn't do in A either.

In Conversation C, Yuko used quite a lot of communication strategies. She used comprehension checks three times, clarification requests ten times, confirmation checks 12 times, and offering help 10 times. The main difference here from the other two Conversations, A and B, was that she checked if the interlocutor understood what she said and that she asked the interlocutor to clarify when she didn't understand her. Also, she offered help on a number of occasions. When she used *appeal for help*, this was done in the same way that Lina did in A: she didn't really ask the interlocutor for help, but held the floor while asking the question.

Discussion

The issue of repair in NNS/NNS interaction is clearly an important one, as is shown in studies of Gaskill, 1980; Schwartz, 1980; Varonis & Gass, 1985, among others. However, research to date does not warrant the conclusion that learning opportunities in NNS/NNS conversations are exclusively (or even primarily) to be found on occasions when communication problems are repaired.

Interaction among NNS is often discussed in terms of the negotiation of meaning or understanding, the assumption being that negotiation results in the availability of more comprehensible input, hence leading to more second language acquisition (Long 1983, 1985; Pica, Young & Doughty, 1987). One might easily slip into a line of argument which says that the more negotiation one finds, the higher the quality (or at least learning value) of the interaction is.

However, some reflection should suffice to show that this argument must be false (see also Aston, 1987). Negotiation, in the repair-based way in which it tends to be defined, and the types of interactional phenomena by which it tends to be quantified, is only used when comprehension is deficient for some reason.¹¹ This can be seen in the five types of “communication strategies” that we summarized in Table 3. When comprehension is sufficient, as it usually is in conversations oriented towards symmetry, fewer repairs will be needed. More negotiation—in this sense—does therefore not equal more comprehension, and may very well indicate the reverse. Further, the frequency of repairs tends to be inversely related to the degree of symmetry that is achieved in an interaction.

At times an interlocutor of higher proficiency may not engage in repair procedures (in the sense of using negotiation moves and interactional modifications) even though comprehension has clearly not been achieved. In such cases the interlocutor continues on the assumption that the problem will eventually be resolved in the normal course of the conversation (see Extract 12 below, where Y’s response to “opiago” may be an example).¹² Once again, negotiation is not an adequate indicator of comprehension.

Ex. 12 - Conversation C

-
- | | | |
|------|----|--|
| 402 | Y: | Uh-huh. Um, you wrote a letter? |
| 403 | I: | Yes. |
| 404 | Y: | [For your parents? |
| 405 | I: | Yes. My mother and father. |
| 406 | Y: | Uh-huh. What did they say? |
| 407 | I: | Don’t say. |
| 408 | Y: | Nothing? |
| 409 | I: | Yeah. ((laughter)) |
| 410 | Y: | Yeah... So— |
| 411 | I: | Because I—opiago. |
| *412 | Y: | I’m sorry? |
| 413 | I: | Opiago. |
| *414 | Y: | Uh-huh. |
| 415 | I: | A few days ago |
| 416 | Y: | [Uh-huh [Uh-huh |
| 417 | I: | I called my father. |
| 418 | Y: | Uh-huh. |
| 419 | I: | Father say um—I I dis dis letter and wiz ring
congreage |
| 420 | | ate card—my mother birthday—don’t reach don’t |
| 421 | | arrived. |
| *422 | Y: | Oh, I see. ahh. |
-

In our study, by regarding conversations between interlocutors of differing levels of proficiency as structurally different, a number of important

features of interaction have been highlighted. Many of these relate to issues of dominance and control (a power differential), and are expressed in such interactional phenomena as topic change, back channeling, and empathy marking. When interlocutors are of roughly equal proficiency it can be seen that they are able to achieve a degree of symmetry that is similar to that of a conversation between native speakers. However, when proficiency levels are different, the higher-level interlocutor uses interactional resources in ways that are broadly similar to those used by native speakers talking to nonnative speakers.

What does all this mean for such things as the use of conversational practice in language teaching, and the ability of students to perform fluently in a range of settings? We need to be careful not to draw hasty conclusions. The best we can say is that students face a different sort of job depending on to whom they are speaking. Further, we can conclude that symmetry in conversation is most easily achieved when the interlocutors are of roughly equal proficiency. If it turns out that positive “interactional bootstrapping” occurs in such interactions, then fears for the development of classroom pidgins will turn out to be unfounded. We also feel, when looking at Conversation C, that students may reap significant benefits from speaking with interlocutors of lower proficiency than themselves, since they will practice a range of conversational skills which are quite similar to those used by native speakers in similar situations. In fact, though we are speculating here, it may well be of greater benefit, at certain points in a student’s career, to speak to other nonnative speakers rather than to native speakers. The value of the native speaker as model, in a conversational context, is therefore not necessarily always greater than that of a nonnative speaker.

Conclusion

In this study we have looked at several discussion features of three interactions between NNS. The organization of each of the three interactions was quite different, and we suggest that proficiency differences between interlocutors play a role in structuring conversations between them. Interestingly, we found communication strategies or interactional modification (negotiation moves) the least revealing of all the features we looked at, even though they have received most of the attention in the research literature. On the other hand, the back channel, often ignored (though see van Lier, 1988; Riggensbach, 1991), turns out to yield particularly rich information.

In Conversations A and C, when two interlocutors’ proficiency levels were different, the more proficient person did most of the conversational work; i.e., she nominated the topics, used questions to elicit answers, used backchannels to encourage the speaker to keep talking, etc. The structure of those two interactions showed asymmetrical contingency, in that one speaker developed plans, and the interactions didn’t really evolve into “real conversations,” i.e., true communicative symmetry was not achieved.

In conversation B, in which both interlocutors were of roughly equal proficiency, the structure of the interaction was very different from the other two. Both interlocutors contributed to constructing the conversation roughly to the same extent. They both asked questions, brought up new topics, competed for turns, etc. In this case, we feel that communicative symmetry was achieved.

According to van Lier (1988), the ability to make choices in communication that are appropriate to setting, participants, topic and activity, that is, the ability to decide when to speak, for how long, and about what, is central to conversational language use. If this is the case, then Conversation A provides far fewer opportunities for true communication than either B or C. This places the assumed value of communicating with native speakers in a new light.

As we suggested, it is too early to draw any firm conclusions from this study. We would hope to have effectively shown a positive role for NNS/NNS conversations, and raised some questions about the value of NS/NNS interaction, particularly where this is characterized by frequent interactional negotiations to repair trouble. Negotiation in the repairing sense does not seem to play a major role in conversational interaction in the way that it appears to do in pedagogical tasks, where the focus is on an exchange of information, the solution of a problem, or the transfer of knowledge from an “expert” to a “novice.” The pedagogical value, as well as the frequency, of repair may be task-dependent, that is, useful at times, detrimental at other times. One can only agree with the conclusion of Loschky, that the role of the comprehension process in acquisition, while possibly quite strong, “seems much more complex than previously suggested by the input hypothesis” and that “positing a simple linear relationship between comprehension and intake is not warranted” (1994, p. 320).

Notes

¹Many cognitive scientists, sociologists, and others, attribute a crucial role to conversation in both social and cognitive development. Heritage & Atkinson, for example, state that conversation “consists of the fullest matrix of socially organized communicative practices and procedures” (1984, p.13).

²All names used are pseudonyms.

³It can be argued that, in spite of this, repairs of communication problems present learning opportunities. This may indeed be so, but it cannot be assumed to be so until it has been demonstrated. Until then, it is scientifically appropriate to assume that *anything* in interaction can present learning opportunities, or fail to do so.

⁴Other contextual factors clearly play a role as well, for example, it is likely that more repairing of communication problems occurs in the kinds of one-way or two-way communication tasks often used in research, than in conversation.

- ⁵ Glachan and Light, 1982, report that in Piagetian problem-solving tasks subjects who initially both use faulty strategies can indeed reach higher-level strategies through interaction. They conclude that “two wrongs may make a right” (p.258). It is possible that the same may be true for language learning. If, as Porter (1986) suggest, learners do not pick up each other’s errors, perhaps they do pick up each other’s accomplishments.
- ⁶ Some attempts to analytically separate equality and symmetry are made in several contributions to Marková and Foppa, 1990, 1991. Luckmann, for example, defines conversation as a “historical subspecies of dialogue in which a relatively high degree of specifically communicative symmetry, typically experienced as equality, prevails (1990:57-8).” This theme is picked up by Farr, when he says that “the distinctive feature of conversation ... in contrast to dialogue, is its symmetry (1991:245).”
- ⁷ We realize that this makes the conversation not a completely natural one. However, we feel we succeeded in establishing a nonthreatening atmosphere, since the conversations took place in familiar surroundings, and among friends.
- ⁸ The transcription conventions followed can be found in van Lier 1988 or Atkinson & Heritage 1984. Briefly, (xxx) means an unintelligible word or brief expression, square brackets denote onset of overlap, colons denote lengthening of the previous sound, the = sign indicates that the turn continues below at the next = sign, and ... indicates about a one-second pause. Comments about the talk by the analysts are enclosed in double parentheses.
- ⁹ Of course, there almost certainly were many more back channels of a more subtle or kinesthetic nature. Such back channels are not picked up by tape recordings, and this is clearly a shortcoming of our data collection.
- ¹⁰ The example in 229 is problematic. It accepts the offer of help in 228, so it is not exactly an appeal for help. It might be more reasonable to say that turns 223-7 make the offer of help in 228 relevant, without being an explicit appeal. This illustrates the problems of labeling strategies, where one might be tempted to keep adding new labels as the need arises.
- ¹¹ This agrees with the observation of Schegloff, Jefferson and Sacks, 1979 that there is a preference for self-repair in conversation.
- ¹² “Opiago” was pronounced [o’piagou] and the wider context suggests that it means something like “a few days ago.”

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Implicit Negative Feedback in Adult NS-NNS Conversation Its Availability, Utility, and the Discourse Structure of the Information-Gap Task

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This article examines the availability and utility of implicit negative feedback provided in task-based conversations between pre-academic, intermediate-level English as a second language (ESL) learners, and native-speaker (NS) interlocutors. The tasks being used were the information gap tasks in which the nonnative speakers (NNS) gave directions to the NS interlocutor so that the NS could assemble the picture pieces in ways consistent with the NNS' directions.

The analysis of the conversational interactions revealed that negative feedback in the form of negotiation and recasts was relatively infrequent in these task conditions, despite an initially assumed abundance of such feedback in them. A further analysis indicated that provision of negative feedback is highly contingent upon the information value of the utterance, as determined by the function that the error utterance serves in the overall discourse structure of the conversation.

On the utility of implicit negative feedback, some indication of learners' incorporation of recast forms was observed in both immediate and non-immediate turns. However, the rather low incorporation rate, coupled with the low rates of provision of negative feedback, suggest that recasts that are provided in untutored, task-based settings may not be sufficient to drive learners' interlanguage (IL) development toward greater accuracy. It is suggested that activities with predominant meaning focus, but with added focus on form, may be needed to draw the learners' attention to form and facilitate their IL development. The discourse-based analysis of the interaction data conducted in this study sheds light on how such an interventionist approach may be best integrated into meaning-based, goal-oriented tasks.

From an interactionist perspective, conversational interaction is believed to provide an ideal context for language learning as it involves learners in meaning-based, goal-oriented, and engaging conversations while simultaneously drawing their attention to form that needs to be learned. In her review of the literature, Pica (1992) argues that negotiation arising from conversational interaction has much to contribute to language acquisition by providing learners with (1) target language input adjusted or modified for their better comprehension; (2) feedback on the semantic and structural features of their IL; and (3) opportunities to adjust or modify their IL semantically and structurally. Pedagogically, Pica Kanagy, and Falodun (1993) argue that,

opportunities to perceive, comprehend, and ultimately internalize [second language] words, forms, and structures are believed to be most abundant during activities in which learners and their interlocutors, whether teachers or other learners, can exchange information and communicate ideas. Such activities are structured so that learners will talk, not for the sake of producing language as an end in itself, but as a means of sharing ideas and opinions, collaborating toward a single goal, or competing to achieve individual goals (p. 10).

While evidence in favor of the generally facilitative role of interaction has accumulated over the past decade—particularly in the areas of comprehension (see Ellis, 1991, 1994; Gass, 1997; Gass, Mackey, & Pica, 1998; Long, 1996; Pica, 1992, 1994, for reviews)—it is only relatively recently that we have begun to squarely examine whether conversational interaction indeed provides enough conditions and engages processes that facilitate language learning. The purpose of this study is to contribute to the growing body of research on these issues by focusing on negative feedback as one potentially beneficial aspect of conversational interaction. Specifically, this study explores three main issues: (a) the availability of implicit negative feedback for adult second language (L2) learners in untutored task-based interaction with native speakers; (b) its influence on learners' subsequent use of the target language; and (c) the relationship between the discourse structure of the task and the provision of negative feedback.

Negative Feedback in First Language Acquisition

The role of feedback in language acquisition has attracted attention of both primary-language (L1) and L2 researchers. Its contribution to language acquisition, however, has been a contentious issue. Despite the intuitive appeal held by the claim that feedback plays a positive role in language acquisition, it has long been assumed that feedback has only a minimal (or even negligible) role in language acquisition. Such an assumption was most frequently based on the findings of Brown and Hanlon (1970) who reported that parents reacted

to the truth value of the children's utterances and not to their well-formedness. The results of this study, as well as some anecdotal evidence indicating children's failure to respond to parental corrections (e.g., McNeill, 1966), have been frequently taken to indicate that negative feedback is neither available nor useful to language learners and thus should not be a plausible means by which language is acquired.

More recently, however, several L1 researchers have challenged this assumption and its underlying evidence by broadening the definitional scope of what constitutes negative feedback, and investigated whether more implicit forms of negative feedback are available (Bohannon, MacWhinney, & Snow, 1990; Bohannon & Stanowicz, 1988; Demetras, Post, & Snow, 1986; Farrar, 1992; Hirsh-Pasek, Treiman, & Schneiderman, 1984; Saxton, 1997). These studies showed that while overt forms of corrections are rare in adult input toward children, subtler, implicit forms of negative feedback are available. For example, studies by Demetras et al. (1986) and Hirsh-Pasek et al. (1984) found that although explicit approval and disapproval were unrelated to well-formedness of children's utterances, there were distributional differences in adult responses to child utterances depending on whether the child's utterances were well-formed or not. That is, verbatim parental repetitions almost always followed children's grammatical utterances, whereas repetitions that changed some aspects of the children's utterance (i.e., recasts and expansions) tended to follow ungrammatical utterances (e.g., Child: *daddy house*; Mother: *Daddy's house*—from Demetras et al., 1986, p. 291). Bohannon and Stanowicz (1988) also found that both parents and other adults reacted differentially to grammatical and ungrammatical utterances from children: 90% of the exact repetitions followed grammatical utterances, and 70% of the recasts and expansions followed ungrammatical utterances (see also Farrar, 1992). In a more recent study, Saxton (1997) proposed the Direct Contrast Hypothesis, which claims that the corrective potential of negative evidence arises from the immediate juxtaposition of child and adult language forms. That is, it is this unique discourse structure of the conversation that highlights the contrast and reveals which of the two linguistic forms should be retained and which rejected.

Collectively, all these studies indicate that negative feedback is available to children, not as explicit corrections, but in more implicit, subtle forms, such as recasts, clarifications, and expansions (for refutation of these claims, see Gordon, 1990; Grimshaw & Pinker, 1989; Marcus, 1993). Not only has it been shown that negative feedback is available, a number of studies have also indicated that such feedback is usable and useful (Baker & Nelson, 1984; Bohannon & Stanowicz, 1988; Farrar, 1990, 1992; Nelson, 1977; Nelson, Denninger, Bonnavillian, Kaplan, & Baker, 1984; Saxton, 1997). Bohannon and Stanowicz (1988) and Farrar (1992), for example, found that children were at least 2 to 3 times more likely to imitate an adult recast correction than other forms of positive evidence, suggesting that children are indeed responding to the feedback component of recasts. Nelson et al. (1984), in their longitudinal study, showed that maternal recasts of their children's utterances at one;

10 positively correlated with their children's MLU, longest utterances, verb complexity and auxiliaries per verb utterance scores five months later.

This study was later followed up by an experimental study reported in Baker and Nelson (1984), who found that recasting more strongly facilitated the acquisition and use of passives and auxiliaries than did simple modeling. In a study of naturalistic mother-child interaction, Farrar (1990) also showed that the reformulation component of recasts was uniquely responsible for facilitating the acquisition of plurals and present progressives. He suggested that recasts may be particularly effective in isolating a morpheme as a distinct unit, since they immediately provide a contrast between the child's original utterance missing the morpheme and the recast utterance, making the morpheme more perceptually salient. An experimental study by Saxton (1997), which tested the prediction of the Contrast Hypothesis, showed that children were far more likely to reproduce the correct irregular past tense forms in their own speech following juxtaposed negative, rather than positive, input. These studies lend strong support to the claim that recasting is a powerful conversational means for enhancing the child's attention to and analysis of to-be-acquired linguistic forms. In particular, the reformulation component of recasts, which is highlighted by the immediate juxtaposition of child's own utterance and the adults' recast forms, seems to assist children in learning new language forms by allowing for cognitive comparison between the two forms (Nelson, 1987).

Negative Feedback in Second Language Acquisition

In second language acquisition (SLA), Long (1996) claims in his updated version of the Interaction Hypothesis that "environmental contributions to acquisition are mediated by selective attention and the learner's developing L2 processing capacity.... Negative feedback obtained during negotiation work or elsewhere may be facilitative of L2 development" (p. 414). He further argues that negative feedback in the form of implicit correction immediately following an ungrammatical utterance (i.e., recasting) "is potentially of special utility because it occurs at a moment in conversation when the NNS is likely to be attending to see if a message got across, and to assess its effect on the interlocutor" (p. 429). Early SLA studies investigated error correction in conversations between an NS and an NNS in natural, untutored environments, reporting infrequent occurrences of NS correction of NNS errors (e.g., Chun, Day, Chenoweth, & Luppescu, 1982; Day, Chenoweth, Chun, & Luppescu, 1984; see also Lin & Hedgcock, 1996, for recent case studies investigating the effect of negative feedback on different types of L2 learners in interview contexts).

More recent studies focused on the availability and utility of negative feedback for L2 learners in task-based conversations. For, as was found in Crookes and Rulon (1985, 1988), a substantially greater amount of negative feedback is provided in task-based contexts than in non-goal-oriented, free conversations. This seems to be due to the greater demands on the interlocutors for message comprehensibility and accuracy in task-based interactions, in

which greater precision is often required for message exchange in order to complete the task successfully. Task-conditions, in other words, tend to create both greater needs and more contexts for negative feedback to be provided.

It is important to note, in this regard, that a growing consensus that has emerged among SLA researchers in recent years is that attention to form and attention to meaning need to be somehow integrated for learners to achieve successful language learning (see, for example, Doughty & Williams, 1998a; Long, 1990; VanPatten, 1996). Recent conceptualizations of negative feedback in SLA also largely reflect this awareness in the importance of integrating attention to form and meaning. That is, for such feedback to be effective, it should be provided in the context of meaningful communication, rather than during grammar-focused lessons that are often devoid of meaning, contexts, or purposes of use. To the extent that tasks are successful in providing contexts for meaningful and purposeful communication while at the same time giving learners opportunities to focus on form, tasks are considered to be valuable tools to enhance language learning.

One recent study that investigated task-based interactions was Oliver's (1995). Focusing on interaction patterns in child NSs-NNSs (age 8-13) as they engaged in a one-way picture-drawing task and a two-way jigsaw task (cf. Pica et al. 1993), Oliver found that NSs modified interactions for NNS peers and, in so doing, provided negative feedback in the form of negotiation (e.g., clarification requests, confirmation checks) and recasts. Her study indicated that the cases in which negative feedback was provided were far more frequent (61%) than cases in which it was not (39%), suggesting that pre-adolescent NSs respond differentially to the grammaticality and ambiguity of their NNS peers' conversational contributions. Regarding the question of usability and utility of negative feedback, Oliver (1995) found that negative feedback was attended to by the child NNSs, as measured by the incorporation of the recast items into their immediately subsequent utterances. When the analysis focused only on those instances where it was possible and appropriate for the NNSs to incorporate recast elements into their immediately subsequent utterances, it was found that NNSs incorporated about 35% of the recasts—a figure interpreted by Oliver to be quite promising considering the possible developmental constraints of the learners.

Three recent studies that specifically focused on the effects of recasts on SLA by adult L2 learners are Long, Inagaki, and Ortega (1998), Mackey and Philp (1998), and Doughty and Varela (1998). Long et al. (1998) report the results of two controlled experimental studies that investigated the relative efficacy of recasts and models in L2 Spanish and Japanese acquisition. The results were mixed. While some advantage for the recasts over the models was found in the case of the learning of Spanish adverb placement, no such advantage was found for the Spanish object topicalization, or for adjective ordering or a locative construction in Japanese. Long et al. speculated that the peculiarity of the modeling condition in which participants were to reproduce model sentences they heard, and the possibility of the learners' activation of prior knowledge, together with uncertainty regarding the learnability of the

target forms for the given groups of learners, may have all contributed to obscuring the impact of recasts in these studies.

Mackey and Philp (1998) compared groups of learners who received interactionally modified input with a group that received the same input containing intensive recasts. The NS interlocutors in the latter group were instructed to recast fully any non-targetlike utterance, especially non-targetlike question forms, given by the NNSs, while NS interlocutors in the former groups were only instructed to complete the tasks through negotiation. A pretest was given to all groups of learners before the three-day treatment began, and posttests were given within the same week as the treatments, one week later, and three weeks later. Both the treatments and the tests consisted of information gap tasks. The results revealed that for more advanced learners, interaction with intensive recasts was more beneficial than interaction alone in facilitating the use of developmentally more advanced question forms in English. Furthermore, these positive effects of intensive recasts were found even though recasts did not often result in learners' uptake or modified output during task interactions. This suggests that immediate uptake may well underestimate any learning that might have taken place.

Finally, Doughty and Varela (1998) report on a quasi-experimental study conducted in ESL content-based science classrooms. Their experimental treatment can be characterized as an intensive recast condition in which students' past tense errors, whenever committed, were first repeated with a rising intonation by the teacher, who then immediately provided a corrective recast with stress on the verb. The repetition of the learner's error served as an additional attentional focusing device to promote noticing of the non-targetlike nature of the learner's form, and the ensuing recast was used to highlight the gap between the learner's form and the teacher's model. The results indicated that in both short- and long-terms (two months after the treatment), the group that received the intensive focused recasts significantly improved in the accuracy of the use of past time reference, whereas the control group that had followed the regular science curriculum without any pedagogical intervention on linguistic form did not show any measurable change.

Therefore, these studies, just as in L1 studies, demonstrated quite promising effects of recasts on L2 learning. However, it is important to note that recasts seem likely to show their greatest effects when they are provided intensively and in a focused manner, as in Mackey and Philp's (1998) and Doughty and Varela's (1998) studies. These studies deliberately manipulated the interaction conditions in such a way that recasts would occur very frequently and in response to particular types of errors. Oliver's (1995) study, on the other hand, showed that children received abundant negative feedback in conducting goal-oriented tasks with their NS peers and that these children appeared to attend to such feedback. Given that Oliver's study involved child L2 learners, and further considering the possibility that the limited and more selective nature of the attentional system of adult learners may affect the efficiency of their monitoring processes (Kormos, 1999; Schmidt, 1990). It would be of great interest to investigate whether adult L2 learners receive as

much negative feedback and show as great sensitivities to it as children do in similar task-based situations.

The study reported in this article was conducted to address these issues by examining the availability and utility of implicit negative feedback in the context of task-based conversations between adult NSs and NNSs. This study has dual aims. First, it aims to make further contribution to the growing body of research investigating the role of implicit negative feedback in L2 learning. Second, it seeks to shed light on the issues of task characteristics and its potential influence on the availability of implicit negative feedback. This task issue is particularly important in light of the implication of the previous studies that some level of intensity may be needed for recasts to be effective. If a particular task does or does not create contexts to elicit much negative feedback, how is it related to the task design or to the way in which the task is approached by the interlocutors? How is the discourse structure of the task related to the provision of feedback?

To address these issues, the present study employed two types of analyses, in addition to the more orthodox analyses of negative feedback (e.g., quantifying the total occurrences of negative feedback, and measuring the effects of recasts by examining the rate of immediate incorporation of recasts). First, this study examined not only immediate incorporation (learner responses in immediate turns), but also non-immediate incorporation (learner responses in later turns), of recasts. Previous studies (especially non-experimental ones) have often focused on the immediate incorporation of recasts as the sole measure of their effects. However, as Mackey and Philip's (1998) study indicated, learning does seem to occur even when immediate incorporation is not observed. This finding has at least two implications for future studies. One obviously is that the impact of recasts needs to be examined beyond the immediate ensuing turns. In addition, while the immediate incorporation analysis may underestimate the effect of recasts (as learning seems to occur without any overt sign of incorporation), it is not clear whether it also overestimates its effect. That is, does immediate incorporation mean only momentary repetition on the part of the learner (for example, as a form of backchanneling with the learner barely noticing the negative input), or is it indicative of the initial uptake that can also affect subsequent learner productions, thereby giving us some, though underrated, indication of the effects of feedback? In an effort to address these issues, both immediate and non-immediate turns following recasts were examined in the present study.

Another unique analytical feature of this study is an investigation of the relationship between the discourse structure of the task and the occurrence of negative feedback. The discourse structure is defined here as the informational structure of the conversation that is constructed as one engages in a task (i.e., picture assembly tasks used in this study). Previous studies of negative feedback have tended to focus solely on the total quantity of negative feedback provided, with little or no attention paid to where in the overall discourse structure of the task negative feedback may be provided. However, Ehrlich, Avery, and Yorio (1989) showed that the density and intensity of

negotiation differs in the task discourse. Specifically, NS interlocutors in their study were found to employ different approaches to the task, depending on whether the information under focus was related to the main points that were essential for the task execution or to the details that provided additional, though not necessarily crucial, information. (See later sections for greater details of this analytical framework.) Considering the possibility that the provision of negative feedback may be affected by the interlocutors' approach to the task at hand, it would be of great interest to examine how a discourse-sensitive analysis of the interaction data can shed light on the task-related issues of negative feedback.

In sum, three research questions are central to the investigation reported here:

1. Do adult NSs provide implicit negative feedback to adult NNS interlocutors while completing information gap tasks?
2. If they do, do NNSs incorporate negative feedback in the form of recasts into their immediate or non-immediate subsequent utterances?
3. What is the relationship between the discourse structure of the task and the occurrence of negative feedback in the interaction?

The Study

Data

This study analyzed 10 NS-NNS conversations centered on information gap tasks. These conversations were part of the corpus originally collected for an earlier study investigating the effects of conversational interaction in SLA (Doughty, 1996, 1998).¹ NNS participants were all members of a class in preacademic ESL at an American university. They were young students in their 20s, of mixed L1 backgrounds, and with an intermediate level of ESL proficiency, as determined by the class placement in the ESL program. NS volunteers were recruited for participation in this study via announcements in classes and through e-mail. They included both graduate and undergraduate students of the same university as the NNS participants. These participants were assigned randomly to form NS-NNS dyads.

In the course of the original study, participants completed three tasks, with two tasks carried out on the first day and the third task a week later. In the first task, the NS gave directions to the NNS so that the NNS could assemble the complete picture of a jumbo jet (see below for the details of the task). In the second and third tasks, the NNS gave the directions and the NS assembled the picture of a train. The database of the current study derives from the transcripts of the second and third tasks. The data from the first task was not used since NNS responses to and comprehension of NSs' spoken directions—which were addressed in the original study—were not the focus of the current study. The

original study also involved dyads assigned to non-interaction conditions as well as interaction conditions in all tasks. Only those involved in interaction conditions were examined in the current study, since only interaction conditions permitted opportunities for negative feedback to be provided. Five conversations taken from the second and third tasks respectively were analyzed separately in this study, constituting the total of 10 NS-NNS conversations analyzed.

Tasks

Three tasks used for the original study were developed using color photocopies taken from the book *Incredible Cross Sections* by Stephen Bietsy (1992). They were information gap tasks in which one party held the information to convey to the other party, who completed the given task using the information provided by the first party. These tasks, with a definite interactional requirement and the convergent goal, are the kinds of tasks that have been argued to provide many contexts of negotiated interaction including the provision of negative feedback (cf. Pica et al., 1993).

The first task involved a picture of a jumbo jet in cross-section. The second task, also shown in cross-section, used a picture of a steam train, containing such pieces as the steam engine, first, second, and third class cars, a dining car, and a kitchen. Pictures such as people sitting or cooking, and a hat lying on a rack, were also cut out from these sections of the train. Care was taken to ensure that the pieces cut out were all in the same shape so that the shape alone could not be the clue to where to place these pieces. This second task was done immediately after the first task. This task will hereafter be referred to as the “authentic train task.” The third task, conducted one week later, also involved the same steam train pieces used for the second task, but they were rearranged into a different train that did not resemble the normal train used for the second task. All participants were notified in advance that the train would look very different this time. This third task will hereafter be referred to as the “jumbled train task.”

For each task, the direction giver had the complete photograph of the plane or the trains, as well as a photocopy of what puzzle pieces looked like to give some point of orientation for giving directions. The task doer received only puzzle-like pieces of the plane or the trains that could physically fit together in many different ways. All the tasks were conducted in the language laboratory, with each participant wearing headphones through which they could communicate with their partner clearly and without interference from other dyads. Screens were set up around workspaces so that partners, as well as other dyads, could not see each other’s work. Participants were given 40 minutes to complete each task, and most of them were able to finish within the time limit. Recorded interactions were subsequently transcribed, and another researcher cross-checked the transcriptions.

The coding scheme used by Oliver (1995) was adopted for the analyses of the NS provision of negative feedback and the NNS's immediate incorporation of the feedback in this study. The reasons for the adoption are twofold. First, Oliver's coding scheme allows for the examination of implicit negative feedback in the form of both negotiation and recasts. Second, the use of the same coding scheme makes it possible to compare the two studies more or less directly because of their analytical comparability. In this coding scheme, interactions were coded as consisting of three parts: NNS initial turns, NS response, and NNS reaction. These three-part exchanges occur cyclically; the NNS reaction constitutes the NNS initial turn of the next three-part exchange. Using this coding, nine interaction patterns were then identified, which are presented in Figure 1, with examples taken from the current transcripts.

NNS	NS
Continue Pattern 1 <i>CORRECT</i>: There's somebody showering. <i>CONTINUE</i>: And after that... Pattern 2 <i>INCOMPLETE</i>: I don't know if I explain exactly but it's- <i>CONTINUE</i>: Yeah. Negotiate Pattern 3 <i>INCOMPLETE</i>: Yeah. next right. <i>CONTINUE</i>: Yeah. Pattern 4 <i>ERROR</i>: Four three two picture is next to right side. <i>CONTINUE</i>: Right side. there is a letter R.	<i>CONTINUE</i>: OK. <i>CONTINUE</i>: No that's fine. <i>NEGOTIATE</i>: Next to the man reading? <i>NEGOTIATE</i>: to the what?

Pattern 5 <i>CORRECT:</i> You have a waiter with a cake. <i>CONTINUE:</i> Yes. Ignore Pattern 6 <i>ERROR:</i> There are five people sit their chair. <i>CONTINUE:</i> They are watching the movie. Recast Pattern 7 <i>ERROR:</i> He read news-paper. Pattern 8 <i>ERROR:</i> You have a like a one pictures <i>INCORPORATE RECAST:</i> Yes one picture. Pattern 9 <i>ERROR:</i> Above the kitchen room don't have a room. <i>DOESN'T INCORPORATE RECAST:</i> Yeah.	<i>NEGOTIATE:</i> A waiter with a cake? <i>IGNORE ERROR:</i> OK I have it. <i>RECAST & CONTINUE:</i> He's reading. OK but he's next to the four? <i>RECAST:</i> One picture. <i>RECAST:</i> There's no room above the kitchen.
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Figure 1. Interaction Patterns

Each part of the three-part exchanges was coded as follows:

1. NNS initial turns: This was coded as correct, incorrect, or incomplete. Incorrect turns contained errors of syntax, morphology, lexical choice, and obvious pronunciation errors. Content errors were not counted as errors for the purpose of this study. An incomplete utterance was one that contained ellipsis or an interrupted attempt, but one that did not involve any errors. If more than one utterance was included in one turn, the turn was coded using

the following hierarchical system: incorrect > incomplete > correct. In other words, if a turn contained an incorrect utterance, the whole turn was coded as an incorrect turn. If, on the other hand, a turn contained an incomplete utterance, the whole turn was coded as an incomplete turn.

2. NS response: The NS responses to the preceding NNS turn were coded as recast, negotiate, continue, or ignore error. A turn was deemed to be a recast when the NS response maintained the central meaning of the NNS utterance while reformulating its incorrect part. Negotiation included such strategies as clarification requests and confirmation checks. If negotiation involved recasting, the response was taken to be a recast. Both recasts and negotiation are considered to be instances of implicit negative feedback. Continuation involved comments, questions, repetitions, and expansions, which were neither negotiation nor recasts. If it was preceded by an NNS error turn, however, it was coded as the NS ignoring the error.

3. NNS reaction: This was coded as incorporation of recasts, or continuation of the conversation. It was decided that incorporation of recast occurred when the NNS used a previously errorful form, following recasts, in a target-language manner as presented by the NS.²

Given the small sample size of the study, as well as the exploratory nature of the study, the analyses below will focus on the description of the distributional differences in the observed patterns. The chi-square test was used in some cases when deemed appropriate. The intent, however, is not so much to make inferences about the general population, but to show the degree of robustness of the obtained results within the current study.

In what follows, the results pertaining to the two issues of general availability and utility of implicit negative feedback will be reported first. In so doing, the results of the authentic train task will be presented first, followed by the results of the jumbled train task. Then, the results pertaining to the relationship between the discourse structure of the task and the provision of negative feedback will be reported.

Availability and Utility of Implicit Negative Feedback

Table 1 presents the overall exchange patterns of NS-NNS conversation in completing the authentic train task. It indicates that while NS-NNS interacted in various ways in carrying out the task, two patterns in particular were much more frequent than any others. The most common pattern of interaction was Pattern 6 (36%), in which the NNS made an error, which was ignored by the NS, which in turn was followed by an NNS continuation move. This type of interaction did not produce any negative feedback despite the opportunities available for it. Somewhat less frequent was Pattern 2 (31%), in which an NNS incomplete utterance was followed by an NS continuation move, which in turn was followed by an NNS continuation move. In other words, this interaction did not involve any apparent errors (only that sentences were not complete due to self- or other-interruption) and did not cause any communication difficulties.

Table 1. Exchange Patterns–Authentic Train Task ($n = 529$)

<i>Pattern</i>	<i>M (%)</i>	<i>SD</i>
<i>Continue</i>		
1. correct > continue > continue	19.00	9.61
2. incomplete > continue > continue	30.63	17.05
<i>Negotiate</i>		
3. incomplete > negotiate > continue	2.39	2.28
4. error > negotiate > continue	5.22	3.15
5. correct > negotiate > continue	2.59	1.81
<i>Ignore</i>		
6. error > ignore > continue	36.03	15.32
<i>Recast</i>		
7. error > recast + continue	.30	.67
8. error > recast > incorporation	.98	.93
9. error > recast > no incorporation	2.88	1.09

As stated earlier, the jumbled train task was carried out by the same dyads one week after the authentic train task was conducted. The major difference between these two tasks was that while the authentic train task involved reassembling a normal train, the jumbled train task involved rearrangement of a train that did not resemble a normal train. Despite the researcher's initial prediction that the jumbled train task may produce more negative feedback than would the authentic train task because the tasks outcome was less predictable (i.e., the placement of pieces was totally random for the jumbled train task, as opposed to the authentic train task), such a prediction was not borne out. In fact, the results of the jumbled train task were generally quite similar to those found for the authentic train task. As indicated in Table 2, the most common patterns of interaction were the same as in the authentic train task: Pattern 6 (37%), in which the NNS made an error, which was ignored by the NS, then followed by an NNS continuation move, and Pattern 2 (29%), in which the NNS incomplete utterance was followed by an NS continuation move, followed by an NNS continuation move.

Table 2. Exchange Patterns–Jumbled Train Task ($n = 680$)

<i>Pattern</i>	<i>M (%)</i>	<i>SD</i>
<i>Continue</i>		
1. correct > continue > continue	24.02	14.87
2. incomplete > continue > continue	28.69	7.68
<i>Negotiate</i>		
3. incomplete > negotiate > continue	.80	.86
4. error > negotiate > continue	3.68	2.13
5. correct > negotiate > continue	.60	1.02

Ignore

6. error > ignore > continue	36.82	14.75
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Recast

7. error > recast + continue	.80	1.10
8. error > recast > incorporation	1.13	1.27
9. error > recast > no incorporation	3.46	2.68

NNS Initial Turns

Table 3 presents the types of NNS initial turns in the authentic train task. It shows that a little less than a half of NNS turns (45%) contained errors providing opportunities for provision of negative feedback from NSs. Incomplete turns constituted a third of NNS initial turns (33%), followed by correct turns (22%). These were the turns that generally did not prompt negative feedback, although they sometimes resulted in negotiation work due to the unclarity perceived by the NS interlocutor (i.e., Pattern 3 at 2% and Pattern 5 at 3% in Table 1).

Table 3. NNS Initial Turns–Authentic Train Task ($n = 529$)

	<i>Correct</i>	<i>Incomplete</i>	<i>Error</i>
<i>M</i> (%)	21.59	33.01	45.40
<i>SD</i>	10.11	16.69	16.47

Table 4 displays the types of NNS initial turns in the jumbled train task. As in the case of the authentic train task, a large proportion of NNS initial turns contained errors (45%). Incomplete turns were the second most frequent (30%), followed by correct turns (25%). These figures were strikingly similar to those obtained for the authentic train task, suggesting that the two tasks posed roughly an equal level of difficulty for the participants.

Table 4. NNS Initial Turns–Jumbled Train Task ($n = 680$)

	<i>Correct</i>	<i>Incomplete</i>	<i>Error</i>
<i>M</i> (%)	24.62	29.50	45.88
<i>SD</i>	15.56	8.02	18.07

NS Responses

Tables 5 and 6 display the NS response patterns in the authentic train task. As indicated in Table 5, the most common NS response (50%) was simply to continue the conversation because the preceding NNS turns were either correct or incomplete—yet clear—causing no particular difficulties in communication. In the remaining 50%, the NS negotiated (10%), recast (4%), or ignored the error (36%), suggesting that a large proportion of error or unclear NNS turns were ignored rather than negotiated or recast by the NSs. Furthermore, when only error turns were considered ($n = 223$), it was found that errors were much more likely to be ignored by the NSs (see Table 6). Error turns were negotiated only 13% of the time and were recast still less frequently, 10%.

Table 5. NS Responses–Authentic Train Task ($n = 529$)

	<i>Continue</i>	<i>Negotiate</i>	<i>Recast</i>	<i>Ignore error</i>
<i>M (%)</i>	49.62	10.20	4.15	36.03
<i>SD</i>	18.26	6.25	1.44	15.32

Table 6. NS Responses to NNS Errors–Authentic Train Task ($n = 223$)

	<i>Negotiate</i>	<i>Recast</i>	<i>Ignore</i>
<i>M (%)</i>	13.10	9.99	76.95
<i>SD</i>	8.49	3.87	9.48

Tables 7 and 8 show the NS response patterns in the jumbled train task. Table 7 indicates that, as in the case of the authentic train task, the most common NS response (53%) was simply to continue the conversation, suggesting that no apparent communication difficulties arose because the message was error-free and clear. The next most common response of NSs was to ignore the NNS errors (37%), suggesting that, like the authentic train task, a large proportion of error or unclear NNS turns were ignored by the NSs. NS negotiation moves were slightly less frequent in the jumbled train task (5%) than in the authentic train task, and recasts were as infrequent in the jumbled train task (5%) as in the authentic train task. When only error turns were considered ($n = 302$), it was confirmed that NSs ignored NNS errors much more frequently than negotiated or recast them (see Table 8). Error turns were negotiated only 8% of the time and were recast 12% of the time. Together, negative feedback was provided only about 20% of the time when NNS errors occurred.

Table 7. NS Responses–Jumbled Train Task ($n = 680$)

	<i>Continue</i>	<i>Negotiate</i>	<i>Recast</i>	<i>Ignore error</i>
<i>M (%)</i>	52.71	5.09	5.39	36.82
<i>SD</i>	17.46	2.39	3.23	14.75

Table 8. NS Responses to NNS Errors–Jumbled Train Task ($n = 302$)

	<i>Negotiate</i>	<i>Recast</i>	<i>Ignore</i>
<i>M (%)</i>	8.49	11.64	79.87
<i>SD</i>	4.34	5.18	7.61

NNS Immediate Reactions

Pattern 8 in Table 1 indicates the pattern in the authentic train task in which NNS error turns were followed by recasts from the NS, which were then successfully incorporated by the NNS. When recasts were available to NNSs, they were successfully incorporated 24% of the time (i.e., frequency of Pattern 8 divided by the combined frequencies of Patterns 7, 8, and 9). If Pattern 7 is

excluded from the calculation because it did not provide the chance for the NNS to incorporate the recasts, the incorporation rate slightly goes up, to 26%. This indicates that the NNSs incorporated a little more than a quarter of the recasts when they were available and when it was possible to do so.

In the jumbled train task, recasts (when available) were incorporated by NNSs 21% of the time (cf. Table 2). Excluding Pattern 7—which did not provide the opportunity for the NNS to incorporate the recasts—the incorporation rate becomes a little less than 25%. The overall similarities between the authentic train task and the jumbled train task in terms of NNS initial turns, NS response patterns, and the rate at which recasts were incorporated into subsequent NNS utterances, give us certain amount of confidence regarding the comparability of the two tasks and the robustness of the results obtained from these tasks.

NNS Non-immediate Use of Recast Forms

The above analyses showed relatively low rates of immediate incorporation of recasts in both tasks. To further explore the effect of recasts, the NNSs' use of the recast forms in subsequent turns was examined. Two specific questions were posed: (a) were recast errors less likely to recur in subsequent NNS utterances?, and (b) is there any relationship between the immediate incorporation of recasts and the subsequent use of the same form in non-immediate contexts?

To address these questions, an analysis was conducted by first identifying a key word or words contained in the error in question. The key word was then searched in the portion of the transcript following the occurrence of the recast in order to examine whether the same error recurred after the recast or whether it was now correctly used (the instances of immediate incorporation were not included in the calculation here). For example, in the following exchange the key word was determined to be *rider*, as it is an error of lexical choice and it was recast by the NS interlocutor as *driver*.

NNS It's like the rider of the train.

NS The driver of the train?

If an error pertains to a syntactic or morphological form, the particular item that was made an error of was identified as the key word, rather than identifying the whole group of the form (e.g., *-ing*, *-ed*). For instance, in the following exchange, the verb *read* was determined to be the key word, as it was produced in the wrong form in the context by the NNS and was recast in its correct progressive form by the NS interlocutor. The search was then made as to whether this verb was subsequently used as *read* or *is reading* in similar grammatical contexts.

NNS He read newspaper.

NS He's reading.

The analysis was conducted separately for cases where the recasts were immediately incorporated and where they were not, in order to examine any differences that may arise in these two types of cases. Due to the small number of recasts available in each task, the data from the two tasks were pooled for the analysis. Four patterns were identified in this analysis: subsequent to recasts, (A) only correct forms appeared and no error forms reappeared, (B) no correct forms appeared and only error forms reappeared, (C) both correct forms and error forms appeared, and (D) neither correct forms nor error forms appeared. Of particular interest here are patterns A and B, since the former indicates a positive effect of recasts while the latter indicates no effect. Patterns C and D are more problematic for interpretation. Pattern C is ambiguous in that it may indicate either that no learning took place or, perhaps more likely (and hopefully), that learning was taking place through recasting although the learner still continued to use two different forms, correct and incorrect, for some reason. Pattern D may indicate that there simply was no opportunity for the same form to reappear elsewhere in the task. Table 9 shows the results of this analysis.

Table 9. Patterns of Correct and Incorrect Use of Recast Forms by the NNSs

<i>Patterns</i>	<i>A</i>	<i>B</i>	<i>C</i>	<i>D</i>
when recasts were immediately incorporated (<i>n</i> = 15)	9 (60.00)*	1 (6.67)	2 (13.33)	3 (20.00)
when recasts were not immediately incorporated (<i>n</i> = 44)	9 (20.45)	14 (31.82)	10 (22.73)	11 (25.00)

Note: Pattern A: only correct forms appeared and no error forms reappeared; Pattern B: no correct forms appeared and only error forms reappeared; Pattern C: both correct forms and error forms appeared; and Pattern D: neither correct forms nor error forms appeared.

*Numbers in parentheses indicate percentages of each pattern for each condition (when recasts were immediately incorporated and when they were not).

The first column in Table 9 (pattern A) indicates that only a very small number of correct forms was used subsequent to recasts, either immediately after or later in the task. This is partly due to the small number of occurrences of recasts in these tasks (59 instances in both tasks combined). More interestingly, when incorporation of recasts was observed, only correct forms were used while no error forms reappeared 60% of the time (pattern A), and only error forms reappeared while no correct forms were used less than 7% of the time (pattern B). In contrast, when incorporation of recasts was not observed,

no error forms reappeared while correct forms were used only about 20% of the time (pattern A), and more than 30% of the time only error forms reappeared and no correct forms were found (pattern B).

These results suggest that positive effect of recasts may not be limited only to the immediately ensuing contexts; the recast forms were produced by the NNS participants in non-immediate contexts as well. The data also suggests that the non-immediate effect of recasts was much more likely to be observed when recasts were immediately incorporated into the NNS utterances than when they were not. This may indicate that immediate incorporation means much more than learner's momentary repetition of the recast; it signals some later impact as well. Although the small frequencies in each cell means that the results obtained here must be interpreted cautiously, they are nevertheless interesting enough to warrant further research into the relationship between immediate incorporation of recasts and the learner's subsequent use of the recast forms.

Discourse Structure of the Information Gap Task and Provision of Negative Feedback

The Rationale and Analysis

The above results showed much lower rates of provision of negative feedback in both tasks than had been initially expected. These findings are puzzling particularly in light of the findings of previous research indicating that task conditions stimulate much negotiation work between interlocutors. The above findings, therefore, make even more important the investigation of the third research question that addresses the possible relationship between the discourse structure of the task and the occurrence of negative feedback. In closely examining the transcripts of the NS-NNS interactions, it became clear that the NSs' provision of negative feedback was not random. Specifically, the NSs in this study appeared to be employing some strategy of focusing their attention on specific information. In fact, despite the task directions that clearly specified that the task doer listen carefully and follow the interlocutor's directions indicating what pieces had to be placed in what areas, the NS task doers did not have to attend to every aspect of NNS directions in completing the task. Instead, they appeared to be concentrating on what they thought was crucial for them to carry out the task. This NSs' selective attention appears to have allowed them to complete the task without getting bogged down in intensive negotiation work. Such an instance is illustrated in the following example:

I. NNS

NS

Where does the guy
showering go?

The guy showering
he's going above-

What?

The guy showering he's
go above the the people
who are eating.

Oh. *Above* them.

Yes. Above them.

OK.

In this example, the NS requested for a specific response from the NNS concerning where to place a particular piece. As such, he focused his attention on the location word (i.e., *above*) and did not bother to provide feedback to the NNS error *he's go* contained in the second utterance.

As this example shows, the NSs' focus on specific information in completing the task appears to have resulted in ignoring other parts of the NNS utterances regardless of whether they contained an error or not. Consequently, when errors occurred while the NNS was giving directions, the NS did not bother to provide any feedback to what they might have considered to be non-crucial or redundant information. Instead, the NS preferred to continue the conversation in such cases. This suggests that the occurrence of feedback is highly contingent upon the information value of the utterance as determined by the NS interlocutor; if it is deemed important, some kind of feedback may be given to make sure that the NS properly understood it, and if it is not deemed crucial, it is simply ignored regardless of whether the utterance is correctly formulated or not.

Such a variable focus of participants in information gap tasks has also been suggested by other researchers. As briefly introduced earlier, Ehrlich, Avery, and Yorio (1989) showed that negotiations of meaning were not uniform throughout a discourse in the context of a picture-description task. In their study, two types of strategies were first identified in the production of direction-giving narratives: A skeletonizing strategy in which only the bare events of a narrative are provided, and an embroidering strategy in which events are described with a greater amount of expansion and embellishment.

Of these two strategies, skeletonizers tended to abandon negotiation of meaning once there was a non-understanding. They did so most frequently when they strayed to deeply embedded parts of discourse (i.e., details of the narrative). When discussing a salient, identifying element in a discourse, however, these same speakers were much less likely to abandon negotiation of meaning despite several overt indications of non-understanding on the part of

the NNS. Embroiderers, on the other hand, were more likely to continue to negotiate meaning after a communication breakdown, regardless of how deeply embedded their discourse became. As a result, they often encountered difficulty in repairing non-understandings that were deeply embedded in discourse. Interestingly, skeletonizing pairs scored much higher on overall task success than the embroidering pairs did. That is, too much negotiation of meaning of detailed features was found to be less effective in terms of successful task completion for NS-NNS dyads. This suggests that adopting skeletonizing strategy seems to be a better and wiser choice if one is concerned with task success and efficiency.

If the analysis of Ehrlich et al. is applied to the results obtained in the present study, it may be that the skeletonizing strategy was adopted by most NS interlocutors for their comprehension. This, in turn, may have resulted in the NSs providing less negative feedback. In other words, there may be a close relationship between the information structure of the task and the provision of negative feedback. To substantiate this claim, an analysis was conducted using the discourse framework developed by Ehrlich et al. (1989). This framework was originally developed to account for the discourse of a picture-drawing task in which the direction giver provides directions to the task doer as to how and where to draw certain objects. Three constituents of the discourse were identified: identification, description, and orientation (or location). In conducting a picture-drawing task, the direction giver first specifies where the piece under discussion should be located in the overall picture (e.g., *then the next one is...*), identifies it by providing a label (e.g., *it's like a sunflower*), and describes what the piece looks like by providing details (e.g., *Okay, first there's a circle*). This framework was adapted for the analysis of the discourse in the current study, since these three constituents were also found to be present in the train-assembly tasks.

In conducting the task whose aim is to assemble an object from separate picture pieces, the direction-giver often identifies the piece under discussion by providing a label (e.g., *engineer piece*), describes what it looks like by providing descriptive details (e.g., *the man wears a blue jacket and a hat*), and specifies where the piece should be located in the overall picture and in relation to other pieces (e.g., *it comes next to the first class car*). The order of the three constituents may not necessarily be fixed, as location may be provided before identification and description (e.g., *To the right of this piece is a man taking a shower*), although identification usually preceded description.

A basic intuition derived from this framework is: If the occurrence of negative feedback is contingent upon the information value of the utterance, more negative feedback is expected to occur when the information provided is crucial for the execution of the task. To be more specific, information provided by the direction-giver that pertains to identification and location should be considered crucial for the task execution and thus should be likely to prompt negative feedback. However, information pertaining to description is often not so crucial, particularly if the NS has already successfully identified the piece. For example, once the piece identified as an *engineer piece* is found, the

descriptive information such as *the man wears a blue jacket and a hat* would be considered extra information, and as such, may be easily ignored by the NS interlocutors. The importance of information attributed to identification and location (as opposed to the somewhat decreased importance of the description) may be a characteristic of a task that has visual information available for both interlocutors.³

Using this discourse framework, which is defined here in informational terms, the analysis examined error treatment patterns by the NS (i.e., negotiate, recast, or ignore) in relation to the discourse functions of the information under discussion (i.e., identification, location, and description). The analysis was conducted separately for the authentic train task and the jumbled train task. The following procedures were used in this analysis. First, each NNS error utterance was coded as pertaining to identification, location, or description of the relevant piece. When the NNS error utterance did not serve any of the above discourse functions (e.g., organizational or procedural remarks, such as *Are you finished?*), it was coded as *other*. In the authentic train task, there were 19 NNS error utterances coded as others. Among them, only one instance was recast, whereas all the other errors were ignored by the NSs. In the jumbled train task, there were 57 NNS error utterances identified as others. One instance each was recast and negotiated, while all the others were ignored by the NSs. Since this category did not serve any of the three discourse functions that were under focus in this study, its results will not be discussed any further in this article.

After the NNS error utterances were coded, NS responses to the NNS error turns were examined to determine whether NNS errors received any negative feedback in the form of recast or negotiation. Then, the number of NNS error utterances of each discourse function that received different NS responses was tallied. The percentage figure was also computed for each discourse function that received different NS responses to see what proportion of error utterances of each discourse function actually received negative feedback.⁴

Results Pertaining to the Relationship between the Discourse Structure and Negative Feedback

Table 10 shows the relationship between NNS error utterances serving different discourse functions and NS responses for the authentic train task. It can be seen that there was a proportional difference in the type of NS responses depending on which discourse function the NNS error utterance served ($\chi^2 = 23.66$; significant at $p = .0001$). While the most common NS responses were to ignore errors for all three discourse functions (which is consistent with the findings reported above), NSs tended to ignore NNS errors more frequently when errors occurred in utterances serving a description function (90%) than they did in utterances serving identification (65%) and location (62%) functions.

Table 10. NNS Error Utterance Serving Different Discourse Functions and NS Responses in Authentic Train Task.

<i>NNS Response Type</i>	<i>NNS Error Utterance Type</i>		
	<i>Identification</i>	<i>Location</i>	<i>Description</i>
<i>Negotiate</i>	17 (23.61)*	15 (22.73)	7 (6.03)
<i>Recast</i>	8 (11.11)	10 (15.15)	5 (4.31)
<i>Ignore</i>	47 (65.28)	41 (62.12)	104 (89.66)

* The number in parentheses indicate percentages of each NS response type out of the total number of NNS error utterances serving each discourse function.

When errors occurred in utterances serving an identification function, they were negotiated 24% of the time and recast 11%. Identification errors, in other words, received negative feedback 35% of the time. When errors occurred in utterances serving the function of location, they were negotiated 23% and recast 15%. This means that 38% of the errors pertaining to location received negative feedback. In contrast, only about 10% of errors that occurred in utterances serving a description function received negative feedback.

Table 11 displays the results of the analysis for the jumbled train task. The results are quite similar to those obtained for the authentic train task ($\chi^2 = 19.75$; significant at $p = .0006$). The most common response pattern for all types of error utterances was to ignore the error. However, errors that occurred in utterances serving identification and location functions received negative feedback more frequently than errors that occurred in utterances serving a description function. Identification errors were negotiated 13% of the time and recast 22% of the time, totaling 35% of identification errors receiving negative feedback. Similarly, location errors were negotiated 16% and recast 17% of the time, totaling 33% of location errors receiving negative feedback. Description errors, on the other hand, received negative feedback only 10% of the time, with negotiation and recast occurring 5% of the time each. These results suggest that there is indeed a relationship between the NNS error utterance serving different discourse functions and the NS response patterns, with identification and location receiving more negative feedback than description.

Table 11. NNS Error Utterance Serving Different Discourse Functions and NS Responses in Jumbled Train Task.

<i>NS Response Type</i>	<i>NNS Error Utterance Type</i>		
	<i>Identification</i>	<i>Location</i>	<i>Description</i>
<i>Negotiate</i>	12 (13.19)*	15 (15.79)	5 (5.15)
<i>Recast</i>	20 (21.98)	16 (16.84)	5 (5.15)
<i>Ignored</i>	59 (64.84)	64 (67.37)	87 (89.69)

*The number in parentheses indicate percentages of each NS response type out of the total number of NNS error utterances serving each discourse function.

Discussion

Provision of Implicit Negative Feedback in Task-based Conversations

To summarize, this study found that in performing information-gap tasks, adult NNSs and NSs interacted in various ways; however, the NSs most frequently ignored NNS errors rather than negotiated or recast them. Negative feedback was provided to NNSs less than 15% of the time in the authentic train task and a little more than 10% in the jumbled train task. NNS errors were ignored by NSs more than a third of the time in both tasks. If only those turns that were clearly designated as error turns were considered, negative feedback was provided a little more than 20% of the time in both tasks (the authentic train task: 23%, and the jumbled train task: 20%), while errors were ignored much more frequently. These findings contrast sharply with those reported by Oliver (1995) who investigated child NS-NNS interactions in task conditions. Her results indicated that more than a third (37%) of the total interactions involved negative feedback, and this figure increased to 61% when only error turns were considered. Although a direct comparison of these figures may be difficult due to the differences in the tasks being employed (a one-way picture-drawing task and a two-way jigsaw task in Oliver's study vs. one-way information gap tasks in the present study; cf. Pica et al., 1993), the differences in the amount of negative feedback provided in the two studies are quite striking and are in need of explanation.

Why was negative feedback so infrequent in this study? Part of the answer seems to lie in how the NS interlocutors approached the tasks. NS interlocutors seemed to be using a strategy of carefully attending to information that was deemed crucial for the completion of the task while ignoring information that was deemed less crucial. This observation was generally confirmed by the examination of the error treatment patterns by the NSs in relation to the discourse

functions that NNS error utterances served in the tasks. In other words, negative feedback was provided more frequently when errors occurred in utterances serving the discourse functions of identification and location (which were deemed crucial) than when error utterances served the discourse function of description (which was less crucial). Taken together, errors pertaining to identification and location received negative feedback about 35% of the time, as opposed to errors pertaining to description, which prompted negative feedback only about 10 % of the time. Some illustrative examples are provided below.

Examples (2) and (3) show instances where NNS error utterances pertaining to identification were negotiated and recast by the NS interlocutors, respectively. In (2), the NNS utterance contained a word *baba* which was a mispronunciation of the word *barber*. In response to this utterance, the NS attempted to negotiate by saying *And a what?*, which was followed by a repetition of the original utterance *Baba*. An NS recast move then followed this second error utterance.

2. NNS

NS

In this part you will see
a [baba] room.

And a what?

[Baba].

Uh a barber.

Yeah. You will see the
word “XXX salon” on
the window.

In (3), the NNS utterance *cook* was recast by the NS as *cooks*. The NNS repeated her original utterance without incorporating the recast and continued the conversation.

3. NNS

NS

They are cook.

Cooks.

Yeah cook. One of them
is cooking.

In both (2) and (3), the NNS utterances containing errors related to the identification (initial labeling) of the pieces, and the NSs provided negative feedback while attempting to clarify what the pieces under discussion were.

Examples in (4) and (5) show cases where the NNS error utterances pertaining to location were negotiated and recast by the NSs, respectively. In (4), the NNS utterance *Put it near on the right*, which pertained to where the piece should be placed, appeared to be perceived by the NS as ambiguous.

Thus, the NS tried to negotiate it by asking *What do you mean near on the right?* This response then triggered a reformulation of the original utterance by the NNS.

4. NNS

NS

Yes the third wheel. Put
it near on the right.

Near on the right. What
do you mean near on
the right?

Put near the piece you
put right now.

In (5), the NNS utterance *in the topper* was recast by the NS, which in turn prompted a confirmation response by the NNS.

5. NNS

NS

You should put one
wheel in the topper.

One on the top?

Yeah it is a half wheel.

In contrast to the NNS utterances relating to identification and location, NNS error utterances pertaining to description were more likely ignored by the NSs. For example, in (6), there was an error involving the choice of the verb *follow*, as well as its agreement with the participant; however, these errors were completely ignored by the NS.

6. NNS

NS

Water follow down?

Yes. OK.

Yeah.

All right. That's in
place.

Prior to the exchange in (6), the NNS had already identified the piece under discussion as *water part*, which appeared to be understood by the NS interlocutor as seen in his affirming response *yes*. In this sense, the NNS error utterance in (6) only provided redundant descriptive information, so the NS only acknowledged it by saying *Yes. OK*. The next turn by the NS also showed that the task at hand was satisfactorily completed despite the NNS error.

Similarly, in (7), despite the error contained in the NNS utterance *many hole*, it did not prompt negative feedback from the NS, who instead

asked a question relating to where the piece should be placed. Again, the piece under discussion had already been identified by the NNS as *fire box* prior to this exchange.

7. NNS

NS

It has the many hole.

Next to the Scotsman?

Yeah next Scotsman

In sum, both the quantitative analysis and qualitative examination of the exchange patterns provided some support for the claim that the occurrence of negative feedback is contingent upon the information value of the utterances as determined by their discourse functions. However, it should be noted that many errors still did not receive negative feedback regardless of their discourse functions. This suggests that other factors are also involved in determining when negative feedback is provided. One such factor seems to be related to the visual support available to the interlocutors (i.e., train pieces they had in front of them). The visual support generally seems to have facilitated the task completion, but, at the same time, often obviated the need for careful verbal exchange. Consider (8) in this regard.

8. NNS

NS

OK behind them you
have two other people
one woman and two mans
reading two newspaper.

Is the lady listening to
something?

The lady yes she's
listening she got a XXX
(inaudible)

She got like headphones
on?

Yes. A headphones on.
OK.

In (11), since the NS was presumably looking at the picture of a woman with headphones on, he was able to ask a specific question regarding whether she was listening to something. Moreover, even though the NNS's second turn contained an inaudible utterance, the visual support available to the NS made it possible to correctly infer that the NNS meant headphones. Notice that in these exchanges the NS attention was focused on the woman, and the incorrect forms *two mans* and *two newspaper* were completely ignored. Thus, the NS strategy of highly selective attention to linguistic input and maximum utilization of visual support appear to have resulted in the overall decrease of careful

verbal exchange, which, in turn, reduced the amount of negative feedback provided (see also Crookes & Rulon, 1985, 1988, for a reduced need for extended negotiation in a two-way “spot the difference” task that had visual support, as compared with an “odd man out” task without any visual support).

Utility of Implicit Negative Feedback in Task-based Conversations

While negative feedback was provided relatively infrequently in these tasks, it is still possible that, where it was available, it affected the L2 learners’ subsequent productions. The examination of both tasks revealed that learners incorporated recasts into their immediately subsequent utterances about a quarter of the time when it was possible to do so. The analysis of non-immediate use of recast items revealed that when recasts were immediately incorporated into subsequent NNS turns, they were correctly used later 60% of the time.

Even when the incorporation of recasts was not observed, no error forms reappeared and correct (i.e., recast) forms were used about 20% of the time. While we should be cautious in interpreting these results because of the small sample size available for this analysis, the substantial distributional differences between the immediate incorporation of recasts and the subsequent correct versus incorrect use of the recast forms suggest that the immediate incorporation reflects not merely the learners’ repetition of the recast form, but their potential influence on the learners’ subsequent productions. This is a positive finding for the use of the immediate incorporation as a measure of the effect of recasts, because the immediate incorporation seems to serve as a good predictor of the learners’ subsequent use of recast features. On the other hand, the finding that recast forms (albeit relatively few in number) also turned up later—even when their immediate incorporation was not observed—suggests that the immediate-incorporation analysis fails to capture potential effects of recasts in non-immediate contexts. In this sense, the analysis of non-immediate incorporation seems to be an important methodological addition to the sole use of the immediate-incorporation analysis, as the latter tends to underestimate, but not necessarily overestimate, the effects of recasts.⁵

While some indication of immediate and non-immediate incorporation of recasts was observed in this study, the incorporation rate of about 25% was not as large as had been expected (cf. compare this figure with that obtained in Oliver’s study for her child L2 participants: 35%). One possible explanation for this result may be that, despite the care taken in task-construction, the tasks may have been too demanding for the learners’ current level of L2 proficiency. The learners may, therefore, be unable to allocate enough attentional resources to form (Kormos, 1999; cf. see Schmidt, 1990, 1995, for reviews of literature on the role of attention in second language acquisition and factors affecting it). It should be noted, however, that these learners were still more or less successful in completing the tasks, which may suggest that attention to form was somehow relegated to secondary importance in favor of task completion.

Another explanation for the relatively low rate of recast incorporation may be that the unassisted negotiation that arises from task demands alone is

not as conducive to improving learner accuracy as may have been believed. It is possible that tasks—given their primacy of meaning and the importance of task completion—do not guarantee automatic sensitivity to form (Skehan, 1996). Or as Pica (1994) points out, “[n]egotiation, by definition, focuses on the *comprehensibility* of message meaning, and on the message’s *form* only insofar as that can contribute to its comprehensibility” (p. 517-518: *italics in the original*). As such, untutored, task-based settings may not always provide what is necessary for continued language development.

Rather, the generally low rates of provision—as well as incorporation—of negative feedback found in this study suggest that unaided negotiation—while offering meaningful contexts for language use—may provide only haphazard and hit-or-miss opportunities for language development. If we wish to overcome these limitations, more active approaches of focused pedagogical intervention may be needed. In this sense, the findings of the previous studies indicating positive effects of intensive recasting (Doughty & Varela, 1998; Mackey & Philp, 1998) are quite promising. When recasts are provided intensively and in a focused way (e.g., focusing on only a few selected error types and with special stress), they are much more likely to be noticed and effectively utilized by learners for their language learning.

If such an active interventionist approach is to be taken in future construction and execution of pedagogical tasks, one question facing researchers and task designers is how to maintain a good balance between the learners’ natural priority of attention to meaning and task completion on the one hand and the need to attend to linguistic form for further language development on the other (Doughty & Williams, 1998b; Long, 1991). To adequately answer this question will require careful consideration of various task characteristics and how optimal learning opportunities may be created for learners in relation to these characteristics. The discourse-based analysis of the frequency of negative feedback done in the present study has hopefully made some contribution to this area of research by revealing the importance of the information structure of the task in differentially stimulating the provision of negative feedback.

For example, if the information value of the utterances pertaining to description is generally low in a picture-assembly task, one may wish to include similar pictures in the task so that attending closely to the descriptive details—not just labeling of the picture pieces—would be required. Alternatively, to achieve the same goal of increasing the information value of the picture description, one may create a more challenging task by adding a secondary task of drawing descriptive details in some picture pieces that have blank parts in the center. Whatever design the task might take in specific terms, the crucial point is that the task designers need to take into account how careful and accurate an information exchange is required (or at least, encouraged) to complete the task, giving careful consideration to the probable discourse the task is likely to generate. Such consideration would be particularly useful if the task is to create as many opportunities to focus on form arising in a most natural manner.

Conclusion

This study investigated the availability and utility of negative feedback in task-based conversations between adult NSs and NNSs. The major findings of the study are: 1) the information gap tasks used in this study did not provide numerous opportunities for negative feedback to be provided; 2) this was caused in part by the NSs' highly selective attention to the linguistic input provided by the NNSs, the strategy of which was found to be closely related to the information structure of the task; and 3) while some indication of immediate and non-immediate incorporation of recast was observed, the rather low incorporation rates suggest that recasts provided in untutored, task-based settings may not be sufficient to drive IL development toward greater accuracy. It is suggested that activities with predominant meaning focus, but with added focus on form, may be needed to draw the learners' attention to form and facilitate their IL development. In this respect, the finding of this study indicating the importance of the information structure of the task in differentially stimulating provision of negative feedback may be useful for the future construction of effective pedagogical tasks. The challenge for researchers and task designers lies in creating situations in which a focus on form can be most naturally incorporated at various points in the overall discourse of the task, so that the best of both worlds—focus on meaning and focus on form—can be effectively integrated.

Notes

¹Doughty's study and the present study share certain similarities: Both investigated the effects of conversational interactions on SLA processes. However, the foci of these studies are different: While the former focused on the effects of negotiated interaction on comprehension and production, the latter specifically focused on the effects of interaction in providing implicit negative feedback and how NNS participants responded to it.

²After training, a second rater coded 20% of the sample. The percentage agreement obtained indicates high inter-rater reliability: (1) NNS initial turn = 96%, (2) NS response = 97%, and (3) NNS reaction = 99%.

³The importance attributed to description is somewhat different in the case of the picture-drawing task used by Ehrlich et al., because in their study only the direction-giver had the picture and the task doer had to rely on descriptive information provided by the direction-giver to draw various objects. In contrast, when both interlocutors share the same pictures (even if one has a complete picture, whereas the other has separate pieces), the availability of pictures may obviate the need for and usefulness of detailed description.

⁴After training, a second rater coded 20% of the sample. The simple percentage agreement obtained for the coding of error utterances into different discourse functions they served was 90%, which was determined to be acceptably high.

⁵While the analysis of non-immediate incorporation may be useful in assessing how recasts provided in interactions affect the learners' subsequent language performance, a question is raised as to whether it indicates acquisition. Two aspects of the analysis of both immediate and non-immediate incorporation are limiting in this respect: (1) the uncertainty regarding the nature of errors committed by NNSs (e.g., wrong hypotheses versus slips of the tongue), and (2) a question regarding whether the initial uptake—immediate or subsequent—leads to a restructuring of the IL grammar. Furthermore, uncertainty remains as to whether recasts that are not incorporated into the learners' subsequent utterances are completely ignored. To overcome these limitations, it will be necessary to employ a pretest-posttest design, or carry out longitudinal studies (cf. Doughty & Varela, 1998; Long et al., 1998; Mackey & Philp, 1998). Introspective measures (e.g., interviews with learners after the completion of the task) may also be useful to ascertain learners' perception of what they think they learned through the task (see Mackey, Gass, & McDonough, in press, for a recent attempt at this procedure). These are clearly issues to be addressed in future research.

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Lexical and Grammatical Knowledge in Reading and Listening Comprehension by Foreign Language Learners of Spanish

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This study examined the relationship between lexical and grammatical knowledge to reading and listening comprehension. One hundred and fifty-four fourth semester students of Spanish at the college-level participated in the study. Ten intact class sections were randomly selected from the population. Five were randomly assigned to the reading comprehension group and five to the listening group. All participants in both groups performed the tests of lexical knowledge and grammatical knowledge respectively.

Correlational analyses were used to test the relationship between lexical and grammatical knowledge to both reading and listening comprehension. Multiple regression analyses tested the variance accounted for lexical and grammatical knowledge in reading and listening comprehension respectively. It was found that lexical as well as grammatical knowledge were significantly correlated to reading; however, only lexical knowledge explained the variance in reading comprehension. The results also revealed that only lexical knowledge explained the variance in listening comprehension. The results suggest both similarities and differences between reading and listening comprehension. Pedagogical implications are discussed.

The factors that contribute to the comprehension of discourse for second language (L2) learners are of interest to practitioners and researchers alike. Two such factors are the knowledge bases of grammar and vocabulary (henceforth, lexical and grammatical knowledge) that learners utilize to process and understand a text. On the one hand, lexical knowledge facilitates the process of deriving meaning of the basic propositional content of a sentence. On the other hand, grammatical knowledge allows the learner to internalize the structure of the language in terms of how its features are ordered, rule-governed, and interrelated. Consequently, in order for L2 learners to effectively comprehend and process discourse, they must develop the base components of lexical and grammatical knowledge among other complex features.

Research in L2 has primarily focused on the contributions of topic or background knowledge to reading comprehension (Bernhardt, 1983; Carrell, 1984; Hudson, 1982; Johnson, 1982; Lee, 1986). This focus often occurs at the expense of other issues that may provide a partial understanding of the comprehension process from both a research perspective and from a pedagogical one. Of particular interest to the current study is the extent to which learners' lexical and grammatical knowledge contribute to this comprehension process. Both these components are central to language teaching and are posited in various interactive models of L2 reading (Bernhardt, 1985; Coady, 1979). Notwithstanding, very little is known as to whether these components are equally important for L2 reading as well as L2 listening comprehension. The research undertaken in this study is designed precisely to shed light on this issue. By examining the contributions of lexical and grammatical knowledge to both reading and listening comprehension, a clearer picture can be obtained of how much L2 learners utilize these language-based components to understand discourse.

Research Background

The Role of Lexis and Grammar in Reading Comprehension

The importance of lexical knowledge to first language (L1) reading comprehension is a well-documented finding (see Anderson & Freebody, 1981 for a thorough review). Some research studies have even shown a causal connection between lexical knowledge and reading comprehension (Beck, Perfetti & McKeown, 1982; McKeown, Beck, Omanson & Perfetti, 1983). In the L2 context, this strong connection is also acknowledged (Coady, Magoto, Hubbard, Granney & Mokhtari, 1993, Krashen, 1989; Nation & Coady, 1988) and there has been some research to support the relationship between lexical knowledge and reading comprehension (Hawas, 1990; Koda, 1989; Laufer, 1992).

To illustrate, Hawas (1990) investigated the role of lexical knowledge in general reading comprehension and found that participants who did not know the meaning of some of the words in the passages were unable to answer corresponding reading comprehension questions. Along the same lines, Koda (1989) showed that L1 readers' lexical knowledge in a language with a similar orthographic system, transferred positively, facilitated lexical knowledge in the L2, and was significantly related to reading comprehension. Moreover, lexical knowledge was the most significant distinguishing factor among a group of variables (word-formation knowledge, particle knowledge, vocabulary knowledge, word-recognition speed, and letter identification). Likewise, Laufer (1992) examined the relationship between L2 lexical knowledge (i.e., vocabulary size), reading in a foreign language, and readers' general academic ability and found significant median correlations between performance on a reading test and general academic ability. Lexical knowledge in English was the most significant factor contributing over one-fourth of the variance in reading

comprehension. Taken together, the composite results of these studies seem to suggest that indeed L2 learners utilize lexical knowledge to comprehend a text.

In contrast, the role of grammatical knowledge and its precise contribution to L2 comprehension remains open to speculation. A few studies have addressed the relative contribution of knowledge of grammar to L2 reading comprehension (Berry, 1990; Guarino & Perkins, 1986; Haarman, 1988). Berry (1990) investigated the relationship of analyzed knowledge of grammar, language experience in French and reading comprehension. The findings revealed that language experience in French in conjunction with the selection of the grammatical rule were the best single predictors of reading comprehension with each contributing similar amounts of variance. In the same vein, Guarino and Perkins (1986) examined the relationship of awareness of form class (recognition of structural units such as nouns, verbs, adjectives, and adverbs) to L2 reading comprehension. The results showed significant correlations between the two variables. Research reported by Haarman (1988) that examined various components of reading comprehension (knowledge of lexis and grammar, background knowledge, text type, and specific training in reading skills), revealed low negative correlations between knowledge of grammar and reading. In conjunction, the results of these studies show conflicting evidence concerning the role of grammar in L2 reading comprehension, hence compounding the difficulty in drawing specific conclusions. Consequently, it is essential to examine other types of research that may help shed further light on the issue.

For instance, some studies have shown that it is the interaction of lexical and grammatical knowledge that is important to L2 reading comprehension (Barnett, 1986; Sim & Bensoussan, 1978). In effect, Sim and Bensoussan's (1978) investigation of how knowledge of content words and syntactic function words affected reading comprehension revealed that both knowledge sources were critical to the process. A similar conclusion was reached by Barnett (1986), who showed that the ability to comprehend a text in French was dependent on L2 learners' lexical-semantic knowledge as well as on syntactic knowledge as revealed by a significant interaction between these two knowledge sources on reading recall.

In general, even though no solid conclusions can be drawn from such a meager database, there does appear to be some evidence, albeit scarce, to suggest that both lexical and grammatical knowledge in conjunction affect reading comprehension. If this is the case, it seems feasible to determine whether such a relationship can be clearly established for listening comprehension as well. Such knowledge will contribute to our understanding of the interplay of the language-based components of lexis and grammar on L2 comprehension in general and will have implications from a pedagogical standpoint.

Lexical knowledge has been posited in models of L1 and L2 listening comprehension (Richards, 1983; Rost, 1990; Wolvin & Coakley, 1985) as the avenue through which L2 listeners assign meaning, in part, to aural-oral language. Likewise, knowledge of grammar has been established as paramount for the perception, segmentation and interpretation of aural language (Call, 1985; Richards, 1983). Empirical studies that address the contributions of both lexis and grammar knowledge to L2 listening comprehension are almost non-existent. An extensive computerized literature search yielded only one study.

Conrad (1985) examined whether non-native listeners attended more to syntactic cues as opposed to semantic cues in listening. It was hypothesized that participants with advanced language proficiency as compared to intermediate level proficiency would process the semantic-lexical cues more than the syntactic or phonological ones in a cloze passage. The results of the study revealed that as language learners become more proficient in listening more attention was paid to semantic-lexical cues than to syntactic ones, while less proficient learners rely on syntactic cues. It is important to note, however, that due to certain flaws in the design of the study, the interpretation of the results is questionable. The use of a post-listening cloze test as a measure of listening performance could be equated more to reading than it is to listening, confounding the results of the study. On the other hand, not having a measure of participants' semantic-lexical and syntactic knowledge prior to the test casts doubt as to whether the less advanced participants were capable of performing the task.

To recapitulate, even though we can theorize that lexical and grammatical knowledge may relate to L2 listening comprehension, the paucity of the available database begs for more extensive empirical research that could give support to this assumption. The review of the literature presented has illustrated two competing and important knowledge sources that learners utilize to comprehend discourse; i.e., knowledge of lexis and grammar. However, the literature on the relative contributions of lexis and grammar to comprehension is still largely unknown. The factors that contribute to the comprehension process are complex ones, and lexis and grammar are just a part of the spectrum. A major problem in investigating comprehension in general and the knowledge sources that contribute to the process is how these constructs are operationalized in empirical studies. Most of the quasi-experiments designed to measure complex constructs such as comprehension or knowledge utilize instruments that are questionable in terms of their reliability and validity. On the other hand, the results are based on test scores administered on a one-time basis. While these testing instruments may be useful for measuring learners' performance at a particular point in time, they are not true measures of learners' competence. Consequently, studies that purport to shed light on such issues as the ones discussed in the literature review and undertaken in the present study must be viewed conservatively because of the inherent problems

pertaining to the instruments used to measure the constructs under consideration.

In the section that follows, the differences in performance in reading and listening comprehension are examined through a review of findings that sustain whether these differences can be explained because of the modalities per se or due to the interplay of knowledge of lexis and grammar.

Reading versus Listening

Relatively few studies in L2 have investigated learners' comprehension of discourse via aural or written language despite the wealth of empirical works in L1.¹ Nevertheless, there have been some encouraging endeavors to address some of the issues in relation to L2 learners. Of the two studies that directly compare how learners' performance was affected by aural and written language (Lund, 1991; Reves & Levine, 1988), both showed differences in performance as a result of the mode of presentation of the stimuli.

Lund (1991) compared listening and reading recall by first, second, and third year college students of German. Thirty participants randomly selected were assigned to read a text, while an equal number listened to the aural version. They were instructed to write as many main ideas and details as possible for five minutes then repeated the entire process. Comprehension was measured through a recall protocol and was scored on the basis of the propositions and constituent lexical items that reflected the hierarchical organization of the ideas in the text. The results showed that readers recalled more of the propositions and details than listeners, whereas more advanced students recalled more propositions than the less advanced ones. The second trial was more effective for participants who read the text as compared to those who listened to it. In terms of quality, readers recalled more propositions but listeners were able to recall a greater proportion of higher order ideas and produced more creative constructions. The author attributed differences observed between reading and listening to differences in knowledge of vocabulary, syntax, morphology and phonology in German and to the presentation modality. He concluded that the general processes between reading and listening appeared to be the same.

Lund (1991) alluded to differences in comprehension due to the modality of the stimulus material in part, and also to differences in linguistic knowledge. However, the study does not give any precise measure of participants' knowledge of these linguistic features therefore, its findings are limited.

Reves and Levine (1988) examined the relationship between the subskills in reading and listening and the unitary skill factor of comprehension with a group of English as a Foreign Language (EFL) students at the university level. Participants were given diagnostic tests in reading and listening prior to and at the end of the experimental period. The listening comprehension test was based on specific subskills studied in that modality and tested in reading comprehension. The results showed differences in performance on the various subskills in reading and listening. Overall, participants performed better on the

sub-skill (recognition of key lexical items and deduction of word-meaning; general statements and illustrative support; comparison and contrast; cause and effect) in the modality in which they were taught (reading). Improvement in test scores was noted for listening but not for reading. Reading scores on the lexical test and the post-test correlated the highest ($r = .66$) whereas it was lowest for listening ($r = .42$). This finding suggested that the recognition of lexical items in reading was more closely related to comprehension than it was for listening. The composite results of the study indicated both similarities and differences between reading and listening.

In sum, evidence from the two studies suggests differences in performance on whether a text is processed in the aural or written mode. These differences are attributed to a greater or lesser degree of knowledge of vocabulary and grammar (Lund, 1991), although not explicitly measured in his study, and to particular subskills tested in both modalities (Reves & Levine, 1988). It also appears that lexical knowledge is more closely related to reading comprehension than it is to listening comprehension.

Purpose of the Study

The present study proposes to combine both lexical knowledge and grammatical knowledge in one research design and to examine their relationship not only to reading comprehension, but to listening comprehension as well. Previous research has investigated the contributions of lexical and grammatical knowledge solely to reading comprehension, but has failed to show the precise nature of this relationship to listening comprehension. Hence, a design that combines both of these comprehension sources will provide a better understanding of the variance in comprehension attributed to knowledge of lexis and grammar.

The research questions are the following: (1) What is the relationship between lexical and grammatical knowledge and foreign language comprehension? And, (2) do lexical and grammatical knowledge play the same or different roles for reading versus listening?

Method

Participants

One hundred and fifty-four participants from a large Midwestern university in their final semester of a four-semester basic Spanish language sequence took part in the study. Seventy-seven participants were assigned to Group 1, the reading comprehension group, and seventy-seven to Group 2, the listening comprehension group. All participants were non-majors and were fulfilling the university's two-year foreign language requirement. At this level, they had received a total of approximately 190 hours of classroom instruction which would place them at the late beginners level in accordance with Lee's (1988) timeline. The development of skills necessary for the comprehension

and production of oral and written Spanish was the principal objective at this level. Participants' inclusion to the data pool was contingent upon two criteria: a) the completion of the third semester in a sequence of four—of basic language instruction; and, b) the language spoken at home could not be Spanish. This information was verified through a background questionnaire of previous language study and language exposure administered prior to testing. At this level, the language of instruction is entirely in Spanish, whereas teaching materials (syllabus, textbooks, and exams) are identical for all classes.

Materials

Test of Lexical Knowledge

The impetus for the design of this study derives from the well-known relationship between lexical knowledge and comprehension in L1 and L2 studies. Underlying the testing procedures is the assumption that high scores on the test of lexical knowledge will correlate with high scores in reading and listening comprehension. Lexical knowledge (LK) was operationalized through a word-association and a word-antonym task. It consisted of the selection of the meaning of the target word in Spanish with its equivalent meaning in English, (word-association) or the selection of the target word in Spanish with its opposite meaning in English (word-antonym task). The tasks were designed and developed by the researcher. In L1 and L2 research, word-association and antonyms have been used to measure lexical knowledge (Meara, 1980, 1983; Stahl, 1983) because they form part of the larger spectrum of knowing the relationship of words with other known ones. The main consideration was to equate the testing format to the manner in which students learn words for classroom testing purposes and to mirror the practice of how words are glossed in Spanish textbooks; i.e., target language word with its native language equivalent. Furthermore, it was necessary to present lexical items in isolation rather than in context to minimize the influence of the context. Likewise, the objective was to cover a wider range of words in Spanish that could give an indication of learners' receptive knowledge of vocabulary. It is assumed that foreign language learners are able to recognize the meaning of the lexical item regardless of the context;² i.e., sight vocabulary (Coady et al., 1993). Research conducted with incipient bilinguals (Kroll & Curley, 1988) suggests that early stage L2 vocabulary learning is strongly linked to its L1 equivalent. Consequently, even though the items presented in the test of lexical knowledge were decontextualized (and potentially controversial), there is evidence to suggest that presenting words in isolation may not hamper their retrieval.

In order to account for content validity, eighty items were selected from vocabulary lists of three Spanish language textbooks representative of beginning (B), intermediate (I) and advanced level (A). The lists were distributed to six instructors from these three levels who were asked to determine the representativeness of the items for the desired level (by indicating B, I, A next to each word). Items that overlapped or were unclear with regard to the appropriateness for the level were discarded from the corpus. Only items that

were agreed upon were included. The items were first pilot tested; then an item analysis was performed. This procedure resulted in the selection of items in the range of easy to difficult with a discrimination index of .30 to .60. The final sample of twenty-four items is included in the appendices (Appendix A).

The test score was based upon the selection of the correct item in English parallel in meaning to the target item in Spanish (word-association task) and of the selection of the item in English opposite in meaning to the target item in Spanish (word-antonym task).

For example:

chistoso (funny) comical, practical, cynical, whimsical
ahorrar (to save) to banter, to criticize, to spend, to defect

Test of Grammatical Knowledge

Grammatical knowledge (GK) was operationalized through a sentence completion multiple-choice task and a grammaticality judgment task (Appendix B). The sentence completion task taps local-level understanding of the grammatical features of Spanish, whereas the grammatical judgment task indicates knowledge of the underlying rules of the language. The creation of these tasks was motivated by their potential to reveal a quantifiable and suitable measure of grammatical knowledge representative of the grammar taught in first and second year Spanish. Consequently, the knowledge basis tapped through these tasks implies a tacit understanding of the salient characteristics of basic Spanish grammar.

The sentence completion task was researcher-designed. To account for its content validity, two researchers familiar with test-materials design commented on and revised some of the items. Following revisions to ensure clarity and appropriateness of the items for the intended student population, the sentences were pilot tested. The final selection of sentences yielded twelve items appropriate in terms of difficulty (easy to difficult) and level of discrimination (in the range of .25 to .55). In each sentence a grammatical function word was deleted that corresponded to coordinate or subordinate conjunction, demonstratives, prepositions, possessives, relative pronouns, indirect object pronouns, etc. The selection of an item depended on knowledge of the grammatical function word in terms of its meaning in the sentence. For example:

Me gusta aquel automóvil; _____ me gusta el rojo. (I like that car; I _____ like the red one.)
a. ni (neither) b. sino (but) c. también (also) d. 0 (indicating that the sentence should be left blank)

The grammaticality judgment task was based on student-generated sentences collected from journals which included samples of sentences pertaining to all three levels. The purpose was to determine participants' knowledge of the underlying rules of the Spanish language through the identification of sentences that did or did not conform to the rules. Knowledge

of the rules of the language or metalinguistic awareness is seen as a correlate of developing second language competence (Masny & d'Anglejan, 1985). Therefore, it was important to have a corpus of sentences actually produced by students. On the grammaticality judgment task, participants indicated whether a series of sentence was grammatically correct or not. If the sentence was incorrect, they were asked to circle the error(s) that contributed to the ungrammaticality of the sentence (to determine if participants could identify the source of error and not just guess whether the sentence was ungrammatical or not), and to rewrite the sentence to make it grammatical. The sentence was scored correct if the participants could correctly identify the error and correct the sentence. For example:

*Compró el carro y transportó lo a su garaje.

Thirty-five sentences on the grammaticality judgment task were pilot tested and twelve that met the criteria of desired item difficulty and item discrimination index were selected. Finally the two tasks were collapsed to obtain a composite of twenty-four items for the overall test of grammatical knowledge (see Appendix B).

Test of Reading Comprehension

Two expository passages “Los bereberes del Sahara” and “La papa, tesoro de los Andes” respectively were adapted and developed from popular Spanish language magazines³ resulting in two texts of approximately 500 words each (see Appendix C). The theme of the first passage, “Los bereberes del Sahara,” centered on the lifestyles of a people of the Saharan desert, isolated in time and space from the modern world. The second passage, “La papa, tesoro de los Andes,” described the origin, history, legends, etc. associated with the potato ranging from the time of the Spanish conquest to its status in the world today as a major food crop. The texts were selected because of their cultural themes, although it was assumed that students had little background knowledge to aid in their comprehension of the texts. Students were generally used to reading a variety of texts in the target language as part of their language training, therefore, they should have little difficulty in comprehending the overall content of these texts. The original versions of the texts were edited for length, vocabulary difficulty, and structural complexity and were submitted to various instructors for comments on level of difficulty and the appropriateness of the content. Revisions were undertaken where necessary to ensure their comprehensibility and desired level of difficulty.

Test of Listening Comprehension

To compare participants' performance across listening and reading modalities, the content had to be the same. Differences in the presentation modalities in terms of the amount of control participants would have over the rate and amount of content available for processing the input would imply that participants who listened to the passages would differ in their performance to

those who read it. Whereas the reader would have control of the written input because the information is more permanent and can be retrieved, the listener has to rely solely on memory and the prosodic cues provided by the input to retrieve the information. Given these considerations, the test of listening comprehension had to be comparable to that of reading comprehension. Danks (1980) warns of the pitfalls of using information derived from the written modality presented aurally. However, for lack of a better means of establishing comparisons across modalities, it was decided to have a common text and to have the listening segments simulate the inherent features of an oral text as much as possible. This was accomplished by presenting the listening segments via a newscast format. The speech is presented at slower rate and there is an abundance of prosodic information closer to a presumed reading rate. Consequently, the presentation of the listening passages simulated spoken language in a formal context. The creation of a fictitious Spanish radio broadcasting station served to add authenticity to the passages. Two radio segments were recorded by a native speaker of Spanish who had ample experience in radio broadcasting in his native country. The passages were approximately four minutes long.

Assessment of Reading and Listening Comprehension

A multiple-choice task of global comprehension was used for the assessment of reading and listening comprehension. For the purpose of this study, global comprehension entailed comprehension of the main ideas and of the details of two passages. To compare performance across modalities, the multiple choice assessment tasks were exactly the same for reading and for listening. There were sixteen multiple-choice items for both passages. Eight corresponded to the comprehension of main ideas, and an equal number to the comprehension of the details of the passage. All instructions and the multiple-choice questions were written in English. Scoring was based on a correct-incorrect response format for a combined score of sixteen points. The passages and comprehension questions were pilot tested with a group of students majoring in Spanish. Items that were inappropriate in terms of level of difficulty and level of discrimination were discarded. Subsequently, item difficulty and discrimination indexes in the ranges of .25 to .75 were selected for the sixteen items included on the tests of reading and listening comprehension.

Procedures

Ten intact class sections were randomly selected from the population of fourth semester classes. Of these ten sections, five were randomly assigned to the reading comprehension portion (Group 1) and five to the listening comprehension (Group 2). Data on participants' lexical knowledge (LK) and grammatical knowledge (GK) was collected during the mid-part of the semester, and data on the reading or listening comprehension portion towards the end. All participants completed the LK and GK assessment tasks. The allocated time was 20 minutes. Participants in Group 1 were instructed to read the passages at their own pace but could not refer to the passages to answer the questions

on the test. Twenty-five minutes were allocated to complete both passages and to answer the multiple-choice questions. For the listening comprehension task, the passages were played twice to ensure a more thorough understanding. Participants were permitted to take notes if they so desired but were not permitted to ask questions. After the second repetition of the passage, they were informed to turn to the multiple-choice questions and make their selections by shading in their responses on the machine scorable answer sheet.

Analysis Procedures

Descriptive statistics that report the mean and standard deviation on the tests of lexical knowledge (LK), grammatical knowledge (GK), reading comprehension (RC) and listening comprehension (LC) were generated. Means comparisons were established between test scores obtained in reading and listening comprehension. Finally, correlational analyses between the variables, i.e., LK, GK, RC and LC and multiple regression analyses were performed.

Results

Descriptive Statistics

Table 1 illustrates descriptive statistics for performance on the tests of lexical knowledge (LK), grammatical knowledge (GK) listening comprehension (LC) test and reading comprehension (RC) by participants in Groups 1 and 2.

Reliability analyses were run for the three scales (LK, GK and LC) and (LK, GK and RC) for Groups 1 and 2 respectively. All of the items in each scale were included in the analyses. For the listening comprehension group (Group 1) the Cronbach's alpha for the 24 items of the LK scale was .75, for the 24 items of the GK scale it was .66, and for the 16 items of the LC scale it was .61. For the reading comprehension group (Group 2), the Cronbach's alpha for the 24 items of the LK scale was .57, for the 24 items of the GK scale it was .56, and for the 16 items of the LC scale it was .55.

Participants' performance on the knowledge tests (LK, GK) in Groups 1 and 2 showed similar mean scores and standard deviations. In fact, t-tests revealed no significant differences in mean scores obtained on the tests of LK, GK between the two groups ($t(154) = .55, p = .55$ and $t(154) = 1.11, p = .27$ respectively). On the other hand, there appeared to be some differences between Groups 1 and 2 when performance on the tests of listening comprehension (LC) and reading comprehension (RC) were compared (about .4 standard deviations). The mean score ($M = 9.42$) obtained for participants in Group 2 (the reading comprehension group) was higher than the mean score ($M = 8.26$) for Group 1 (the listening comprehension group). As such, a t-test for equality of means revealed that these means represented a significant difference between the two groups $t(154) = -2.58, p = .011$.

In sum, an analysis of the results of the LK and GK tests showed that participants demonstrated the same level of performance on each of the tests. However, comprehension was different depending on whether participants read or listened to the stimulus materials.

The correlational analysis revealed the degree of relationship between the independent variables, LK and GK and the dependent variable comprehension, (RC and LC). Composite scales were computed by adding the reliable items to create a subscale score. Correlations among the subscales were significant. Table 2 displays the correlation matrix for the relationships among these variables.

Multiple Regression Analyses: Listening Comprehension

A hierarchical multiple regression analyses was computed using LC as the dependent variable and LK, GK as predictor variables. The results with both predictors in one equation are depicted in Table 3.

Although the regression with both variables was significant, the t value for GK indicated that it was not significant at the .05 level. Therefore, LK was sufficient to predict listening comprehension {LC, $F(1,75) = 12.68, p = .0006$ }. The regression yielded the following equation: $LC = 3.72 + .27 \times (LK)$. The R^2 for the equation was .14 indicating that 14% of the variance in LC may be attributed to LK. The adjusted R^2 was .13 indicating that in another sample, 13% of the variance in LC may be attributed to LK.

For the listening comprehension group, the y intercept value of 3.72 indicated that with no additional information about listening comprehension, a student's overall comprehension score will be predicted to be 3.72. The B value for reading comprehension ($B = .27$) indicated that for every correct response, a student's overall comprehension predicted score will increase by .27. For example, if a student answered four items correctly in reading comprehension, his or her overall predicted total comprehension score would become $3.72 + (.27)(4) = 4.80$.

Multiple Regression Analyses: Reading Comprehension

Table 4 displays the results of the hierarchical regression with LK and GK as the predictor variables and RC as the dependent variable. Although the regression with both variables was significant, the t value (1.56) for GK was not significant at the .05 level. Therefore, LK was sufficient to predict reading comprehension {RC, $F(1,77) = 25.79, p < .0001$ }. The regression yielded the following equation: $RC = 2.53 + 0.42 \times (LK)$. The R^2 was .25 indicating that 25% of the variance in reading comprehension may be attributed to LK. The adjusted R^2 was .24. For the reading comprehension group, the y intercept value of 2.53 indicated that with no additional information about reading comprehension, a student's overall comprehension score will be predicted to be 2.53. The B value for reading comprehension ($B = .42$) indicated that for every correct response, a student's overall comprehension predicted score will increase by .42. For example, if a student answered four items correctly in reading comprehension,

his or her overall predicted total comprehension score would become $2.53 + (.42)(4) = 4.21$.

The assumption for normality was met for all three variables for Groups 1 and 2. Normality was assessed using the Kolmogorov-Smirnov Z statistic. The homogeneity of variance (homoscedasticity) assumption was assessed using bivariate scatterplots of the independent variables (LK, GK) versus the dependent variables (LC, RC). However, this heteroscedasticity was not considered to be a problem because larger variances were associated with a greater number of observed points (Stevens, 1996). Multicollinearity was not a problem because the independent variables had low correlation. It is possible that the scale reliabilities attenuated the overall R^2 value. According to O'Grady (1982), the upper bound for explained variance R^2 is equal to the product of the scale reliabilities. Using this guideline, the upper bound for $R^2 = (.57) \times (.56) = .32$. Therefore, the R^2 of .25 may be interpreted as follows: 78% $(.25/.32)$ of the variance in LC may be explained by LK. With regard to LC, the upper bound for $R^2 = (.75) \times (.61) = .46$. Therefore, the R^2 of .14 may be interpreted as follows: 30% $(.14/.46)$ of the variance in LC may be explained by LK.

To summarize, LK was significantly related to both RC and LC. LK explained a larger proportion of variance in RC than in LC. LK was the only significant predictor of both reading and listening suggesting some similarities in both traits. However, in terms of the amount of variance explained by LK, it appeared that this knowledge source appeared to be more crucial for reading than it was for listening. The R^2 values of .14 and .25 respectively explained by LK in RC and LC mean that the greater proportion (75-86%) of variance in comprehension was due to other factors besides LK. The experimental results also showed learners' performance on LK, GK, RC and LC through discrete measures undertaken at one point in time. In view of this, the overall results suggest that the constructs under scrutiny leave open the possibility to explore on the one the one hand, other factors related to reading and listening comprehension besides lexical and grammatical knowledge, and, on the other hand, multiple measures of reading and listening comprehension.

Table 1. Descriptive Statistics for Tests of Lexical Knowledge, Grammatical Knowledge, Reading Comprehension, and Listening Comprehension

Test	Group 1 ^a				Group 2 ^b		
	M	SD	n		M	SD	n
LK	16.68	4.06	77	LK	16.35	3.22	79
GK	13.91	3.51	77	GK	13.32	3.14	79
LC	8.25	2.90	77	RC	9.42	2.71	79

Notes. ^aGroup 1 denotes participants who performed the Listening Comprehension Test.

^bGroup 2 denotes participants who performed the Reading Comprehension Test.

Maximum score LK=24; GK=24; LC=16; RC=16

Table 2. Correlations Between Lexical Knowledge, Grammatical Knowledge, and Comprehension

	Group 1			Group 2		
	1	2	3	1	2	3
1. LK	—	.34*	.38*	—	.53**	.50**
2. GK		—	.26*			.34*
3. COMP ^a			—			

Note. ^aCOMP refers to either Listening Comprehension for participants in Group 1 or Reading Comprehension for participants in Group 2.

$\underline{n}$ for group 1 = 77, $\underline{n}$ for group 2 = 79

* $p < .05$, ** $p < .01$

Table 3. Summary of Hierarchical Regression Analysis for Variables Predicting Listening Comprehension (N = 76)

	Variable	B	SE B	β	+/-	p
Step 1						
	LK	.27	.08	.38	3.56	.0006
Step 2						
	LK	.23	.08	.33	2.90	.004
	GK	.13	.09	.15	1.34	.183

Note: $R^2 = .14$ for Step 1; adjusted $R^2 = .13$, $R^2 = .17$ for Step 2, adjusted $R^2 = .14$

Table 4. Summary of Hierarchical Regression Analysis for Variables Predicting Reading Comprehension (N = 78)

	Variable	B	SE B	β	+/-	p
Step 1						
	LK	.42	.08	.50	5.07	.0000
Step 2						
	LK	.38	.09	.48	3.85	.0002
	GK	.09	.10	.10	0.87	.39

Note: $R^2 = .25$ for Step 1; adjusted $R^2 = .24$, $R^2 = .26$ for Step 2, adjusted $R^2 = .24$

Discussion

Overall, the findings of the present study support previous research in two ways. First, lexical as well as grammatical knowledge have been found to play a significant role in comprehension (Barnett, 1986; Berry, 1990; Conrad, 1985; Guarino & Perkins, 1986; Hawas, 1990; Koda, 1989; Laufer, 1992; Sim & Benhoussan, 1978). Second, differences have been found for reading versus

listening comprehension (Danks, 1980; Lund, 1991; Reves & Levin, 1988; Sinatra, 1990). In the present study, the nature of the relationship of these factors to both reading and listening comprehension was examined from two perspectives: a correlational one as well as an explanatory one. It was found that both lexical and grammatical knowledge were significantly correlated to both reading and listening comprehension (although the strength of the relationships varied widely.) More importantly, it was found that lexical knowledge accounted for a significant proportion of the variance in reading comprehension as well as in listening comprehension. Once again, the relative contributions of these factors varied widely. We can categorically state that lexical knowledge is an important factor in both reading and listening, but the fact that lexical knowledge contributes different amounts to the total variance in comprehension (or why the contribution is unequal) is an intriguing finding—intriguing in that we must hypothesize what other factors contribute to the comprehension process.

Several observations are warranted. Because of the complex interplay between lexical and grammatical knowledge, it is still difficult to ascertain their overall contributions to L2 comprehension. In the acquisition of new vocabulary, learners also need to know their orthographic, phonetic, morpho-syntactic, and conceptual properties.⁴ As a result, the research instruments purported to measure lexical and grammatical knowledge constantly overlap making these knowledge sources difficult to isolate and produce clear-cut results. Performance measures such as reading and listening comprehension also pose several problems in isolating and researching these constructs. One of the main problems encountered in this study and elsewhere, is the unidimensional, one-time measures of comprehension utilized to investigate complex and dynamic constructs as reading and listening comprehension. Such measures compromise the interpretation and generalizability of the results because of their static nature.

The fundamental question guiding this study was: What is the relationship between lexical and grammatical knowledge and foreign language comprehension? The findings provide valuable information on language learners in that, using laymen's term, we can say that the language learner who has strong lexical knowledge is also a good reader and is most likely a good listener. However, we cannot infer that the language learner who has strong grammatical knowledge is most likely a good reader-listener.

Several reasons can be offered to explain how knowledge increases comprehension. First, when readers are able to manipulate the interrelated components of discourse this ability transfers into good decoding skills which allows them to concentrate on the overall meaning of the discourse rather than on the features of discourse. Readers' comprehension is optimized since less mental energy is devoted to the processing of lower-level elements of the discourse (Carrell, 1991; Eskey, 1988). Second, the knowledge that readers possess and bring to the reading task allows them to recognize the more relevant information in a text and use contextual information to clarify meaning (Grabe, 1991). Third, when readers possess a high degree of linguistic and other knowledge, comprehension is optimized because there is activation of

content information and of language specific information that interact simultaneously which leads to fluent reading (Devine, 1988; Faerch & Kasper, 1986).

The findings of the present study provide some insights into differences between reading and listening in a foreign language. Lexical knowledge appears to be more crucial for reading than it is for listening comprehension. For listening comprehension in particular, Coakley and Wolvin (1986) identify six significant related factors: cognitive development, knowledge of the world, linguistic knowledge, hemispheric specialization, level of native language listening ability, and language processing style. As can be seen, the factors related to listening comprehension are complex ones; moreover, in an L2 context one can see the surmounting difficulties in isolating variables specific to L2 listening and of researching them.

Pedagogical Implications

That lexical knowledge accounts for a considerable proportion of variance in reading and listening comprehension implies that it is essential to language learning and teaching, a fact already accepted by many practitioners (Coady, 1979; Hawas, 1990; Koda, 1989; Laufer, 1992) and empirically confirmed in this study. Several pragmatic reasons can be given for developing lexical knowledge. One, it is the building block of comprehension and, consequently, of communication (Yap, 1979). To understand aural or written language, learners need to know the basic vocabulary. Two, lexical knowledge is one of the many factors that differentiates proficient readers from non-proficient ones. Many of the problems encountered by readers both in native and in foreign language is attributed partially to lack of adequate vocabulary (Hague, 1987; Kelly, 1991; Laufer, 1992). Three, the more proficient a language learner becomes, the better he or she is able to differentiate the range of meanings inherent in lexical items and vice-versa. Consequently, valid reasons exist for the development of lexical knowledge in the language classroom.

Regarding grammar, despite the fact that many language practitioners view it as central role to overall language learning, its precise role in language comprehension, however, is still largely undetermined and a concern for future research.

An implication that emerges from the multi-dimensionality of comprehension is that foreign language teaching should not focus solely on one or two subsets of factors that are related to comprehension. As shown by the results of this study, one key factor is lexical knowledge. Yet, this is insufficient to explain the complexity of comprehension and it would be counterproductive to believe that by developing lexical knowledge solely learners can better comprehend discourse. Thus, to obtain a more precise picture of language comprehension many factors other than those examined in this study need to be accounted for and explained.

Finally, concerning the differences in performance observed between reading and listening, the results of the study suggest that the teaching of comprehension should be approached taking into consideration the unique features of both components. Listening is different from reading so that in the

classroom training in listening is necessary as well as training in the use of strategies for effective reading.

Limitations and Directions for Future Research

The tenuous nature of the relationship of grammatical knowledge to comprehension should be interpreted with caution due to the possible limitations of the assessment tasks used in the study. First, the grammatical knowledge tasks yielded moderate to low reliability coefficients that could have contributed to the non-significance of the results. A caveat for future studies should be noted in terms of the reliability of the assessment tasks used. Second, the split-design that compared comprehension levels of two distinct groups of participants rather than the same ones is limiting. A comparison of the same participants on both reading and listening comprehension modalities could have lead to a clearer picture of the effects of modalities on the lexical and grammatical knowledge. Third, the sole use of multiple-choice questions as a means of assessing comprehension is limiting in the sense that they do not show the type of discourse features learners comprehend that would be evident through a recall protocol, for instance. The differences in comprehension through a different method of assessing the construct could have been made possible with alternative formats. The use of participants representing only one level of language proficiency, rather than the use of a more diversified language learner population could have made possible comparisons between groups possessing greater differences in knowledge. Fourth, the type of texts used to assess comprehension was of a descriptive, expository nature. Perhaps different types of text more interactive in nature (for listening comprehension, particularly) could have shown differences in knowledge and comprehension not readily apparent in the type of texts used in this study. Finally, there was no control for background knowledge that facilitates text comprehension, or for participants reading and listening comprehension skills.

The findings of this study suggest several directions for future research. First, future research needs to go beyond the relational and explanatory roles of lexical and grammatical knowledge in comprehension to uncover causative roles of the relationship of knowledge and comprehension. Second, future research calls for the use of multiple tasks to assess comprehension as well as knowledge. In particular, multiple tasks designed to tap learners' knowledge that go beyond the basic elements of lexis and grammar that can reveal deeper levels of language comprehension at large. In addition, the research instrument needs to be critically evaluated in terms of its reliability for different samples. Without this, research findings cannot be generalized. An interesting question to be addressed in future research, for example, is whether good second language readers are good listeners, and if poor readers are also poor listeners. Finally, studies of second language comprehension have mainly been undertaken from the perspective of either linguistic knowledge or background knowledge. Further research is necessary with other types of learner related phenomena. In particular, the role of learner's processing style

and first language reading and listening ability as additional facets related to the multidimensionality of comprehension should be investigated.

Conclusions

The following conclusions can be drawn based on the statistical results obtained and the discussion: 1) Lexical and grammatical knowledge correlate significantly with reading comprehension. However, only lexical knowledge explains reading comprehension; 2) Lexical and grammatical knowledge correlate significantly with listening comprehension. However, only lexical knowledge explains listening comprehension; 3) Reading and listening comprehension are similar but different processes. Lexical knowledge appears to be more crucial to reading than it is to listening comprehension. The variance accounted for in reading comprehension by lexical knowledge is much greater in reading than it is in listening. It appears that other factors besides the ones investigated in this study are involved in listening; and, 4) The relationship between lexical knowledge and comprehension is bidirectional and interactive in nature.

Notes

¹For a review of the differences between L1 reading and listening comprehension see Danks, (1980); Stitch & James, (1984); Sinatra, (1990).

²For a discussion of the role of second language vocabulary in context versus translation see Prince, (1996).

³The magazines were "Hombre" and "Las Américas" respectively.

⁴Vanniarajan (1997) presents an interactive model of vocabulary acquisition.

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Appendix A

Lexical Knowledge Test

Word-meaning association

Circle the word from column 2 that has the *closest meaning* to the word given in Spanish in column 1. If you do not know the meaning of the word in Spanish, do *not* circle anything.

Column 1	Column 2
1. oficio	fee, job, tax, fine
2. confianza	truth, norm, rule, trust
3. cariño	compassion, affection, confession, aberration
4. fortaleza	strength, pride, tolerance, dispute
5. pobreza	power, prediction, poverty, pretense
6. odiar	to criticize, to detest, to deceive, to clarify
7. aconsejar	to repress, to degrade, to advise, to promote
8. coquetear	to hide, to blush, to flirt, to embarrass
9. advertir	to spoil, to caution, to agree, to behave
10. disgustar	to startle, to aggravate, to pretend, to energize
11. chistoso	comical, practical, cynical, whimsical
12. divertido	confusing, tiring, amusing, annoying

Word-antonym

Circle the word in column 2 that has an *opposite meaning* to the word given in Spanish. If you are unfamiliar with a word in Spanish, do *not* circle anything.

Column 1	Column 2
1. abierto	confused, closed, concocted, canned
2. nacer	to doubt, to die, to dig, to drop
3. encarcelar	to release, to descend, to support, to aspire
4. olvidar	to recapture, to retrieve, to recall, to reinstate
5. perder	to win, to invest, to bet, to bid
6. empezar	to sustain, to celebrate, to finish, to postpone
7. culpable	innovative, innocent, creative, callous
8. limpio	filthy, arid, upset, candid
9. negar	to admit, to neglect, to object, to detain
10. recibir	to give, to assist, to try, to refuse

11. cerrar
12. oponer

to tell, to fight, to sink, to open
to put, to support, to deny, to open

Appendix B

Grammatical Knowledge Tests

Sentence completion multiple choice

Circle the word or phrase that best completes the meaning of the sentence. If you do not know the meaning of a word in Spanish underline it. "0" means that you do not think that anything goes in the blank.

1. _____ edificio alto es la Torre ‘Sears.’
a. Eso b. La c. Aquel d. O
2. Los autos que se chocaron en el accidente iban _____ el oeste.
a. dentro b. hacia c. fuera d. O
3. Los novios pasaron unas vacaciones fantásticas _____ fueron a Hawaii.
a. cuando b. que c. donde d. O
4. —¿Van a invitar al profesor y su esposa a la reunión? —Sí, vamos a invitar _____.
a. ellos b. sus c. les d. O
5. Si no puedes usar tu bicicleta usa _____.
a. nuestra b. de él c. la mía d. O
6. A Juana no _____ gustan las películas de ciencia ficción.
a. le b. se c. la d. O
7. En nuestro barrio hay muchas casas bonitas, pero _____ la familia Ramos es la más bonita.
a. su b. de la c. la de d. O
8. —¿Conoces _____ hombre de la camisa verde? —¿Es muy guapo verdad?
a. un b. al c. esto d. O
9. Oscar no va a graduarse este semestre, ni yo _____.
a. tampoco b. ningún c. además d. O
10. —¿Con quién saliste al bar anoche? —No salí con _____ ; fui sola.
a. tú b. alguien c. nadie d. O
11. Estamos comprando _____ pan francés para la cena de mañana.
a. la b. hay c. algo d. O
12. La palabra ‘venir’ viene _____ Latín.
a. por b. en c. del d. O

Grammaticality Judgment

Read each sentence carefully. Then determine if the sentence is a good sentence in Spanish (Good) or bad (Bad). If the sentence is good, do not change it. If you think the sentence is bad circle the word(s) or phrase(s) to indicate the error(s) and rewrite the sentence to make it grammatical. Base your selection on *grammar* and *structure* not on vocabulary or meaning.

GOOD BAD

1. *Anoche el vió lo por la ventana del cuarto.
2. *Todavía yo fue muy enojado con mi amigo.
3. *Porque lo es buena idea para mi.
4. *En la universidad tengo ser muy responsable.
5. *También me gusto la clase de español mucho.
6. *Ella pelo es color café y ella ojos también.
7. *Ella darse cuenta del accidente de la esquina.
8. Antonio es el americano que vino ayer.
9. ¿Encontraste la medicina en algún lugar?
10. Rolando y Clemencia se divorciaron hace un año.
11. El autobús se para en la calle del frente.
12. Prefiero un apartamento con muchas ventanas.

Appendix C

Reading and Listening Comprehension Passages

Los bereberes del Sahara

En la actualidad existen regiones del mundo que evitan tener contacto con el mundo exterior y cuyas tradiciones no han cambiado a través de los años. La región del Chebka y sus habitantes es un ejemplo de una cultura que se ha mantenido separada del mundo exterior con el único propósito de practicar y conservar su fe religiosa. Esta región se encuentra en la zona del desierto del Sahara en el norte de Africa. Aún hoy, después de muchos años de civilización europea y de independencia de Argelia, los habitantes de esta región tienen una forma de vida caracterizada por un fanatismo religioso y social. La región del Chebka está formada por siete ciudades que tienen una cultura de más de trescientos años. La gente que vive en esa región son los Bereberes del Sahara. Pertenecen a la secta del Islam más tradicional que se llama el Ibad. Hay dos grupos principales: los Ibaditas y los Mozabitas.

De las siete ciudades que los Bereberes del Sahara han construido, cinco de ellas están concentradas en el valle al oeste de Mzab. La ciudad más antigua, El Ateuf fue construida en el año 1011. La ciudad llamada Ghardaia tiene alrededor de unos 20,000 habitantes y es la única que se mantiene relativamente abierta a los visitantes.

Los visitantes a la región son muy pocos. En general, existe una actitud de hostilidad hacia ellos. Esto no quiere decir que la gente de la región sea agresiva y quiera atacar a los visitantes. Al contrario, su religión y la ley del

Corán les obliga a recibir al visitante y a atenderle como huésped, mientras éste respete sus costumbres y sus tradiciones.

Una característica impresionante de la región es el silencio reinante parecido al silencio de un gran cementerio. Existen altos muros que protegen la intimidad de los hogares y las casas no tienen ventanas. Las puertas están llenas de cerrojos y las plazas están desiertas.

Los lugares importantes de la región son los cementerios y las mezquitas. Las mezquitas son templos en que los islamitas practican sus ceremonias religiosas. En ambos lugares se deciden cuestiones de justicia y de religión.

Los hombres de la región continúan la herencia de sus antepasados. Todos son ricos comerciantes. También acostumbran a reunirse para celebrar distintas ceremonias religiosas. El niño varón por ser el que continúa con las tradiciones de su cultura tiene un rol especial. Su aprendizaje de hombre empieza a los seis años en donde se le enseña el comercio del padre y los principios del Corán pero lejos del hogar. Así aprende a idealizar el desierto y se le inculca el deseo de volver a casa.

La vida de las mujeres en cambio es muy tradicional. Ellas, por supuesto, deben permanecer en sus casas casi como reclusas según las tradiciones establecidas y pertenecen totalmente a sus esposos desde el momento de la boda. Uno de los oficios de la mujer mozabita es lavar a los muertos. La mujer que hace este oficio se llama 'timzert' y es una especie de religiosa que se ocupa de preparar un funeral digno a los Bereberes que mueren en el desierto.

La región se presenta como un sitio lleno de leyendas y de misterio al que nadie se atreve a visitar.

La papa, tesoro de los Andes

Hace menos de 500 años, la papa sólo era conocida por los indios que vivían en las alturas de los Andes de la América del Sur. Se vino a conocer en el resto del mundo a mediados del siglo XVI, después que Francisco Pizarro, el conquistador español, empezó sus aventuras por América del Sur. Según los historiadores, los españoles se encontraron por primera vez con la papa en el decenio de 1530 en la zona fronteriza entre el Ecuador y el sur de Colombia. La fecha y el lugar exacto en que fue encontrada se desconoce. Unos 30 años después de ser descubierta, llegó a España desde donde fue difundiéndose lentamente por Europa hasta llegar a extenderse por todo el mundo.

La especie de papa clasificada por el botánico suizo Gaspar Bauhin como *Solanum tuberosum* en el siglo XVI, llegó a la América del Norte por la misma fecha en que llegó a España. En 1584, Sir Francis Drake a su llegada a la nueva colonia de Virginia proveniente de su viaje de las Antillas, trajo varios sacos de papas de los españoles con quienes había estado luchando. La papa resultó beneficiosa para los habitantes de la colonia de Virginia que estaban pasando hambre. Más tarde, los habitantes de la colonia la llevaron a Inglaterra.

Cuando llegó a Europa, la papa fue acogida con temor, desorden y desconfianza. Por lo general se creía que causaba raquitismo, lepra y hasta

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sífilis en las personas. Los únicos que la usaron en su dieta desde un principio fueron los irlandeses.

La historia de la papa está llena de misterios, intrigas, supersticiones y leyendas. En tiempos antiguos, los indios de los Andes la adoraban y sacrificaban niños a los espíritus de las papas. De la papa se ha dicho que cura enfermedades y algunos creían que era afrodisíaca.

Tal vez el más famoso de los primeros promotores de la papa fue Antoine Augustin Parmentier, farmacéutico francés, que conoció los beneficios de la papa mientras estaba en una prisión en Prusia. Cuando volvió a Francia empezó una campaña muy eficaz contra los prejuicios de la papa. Desde entonces, forma parte de la dieta de los franceses.

La papa ha dado origen a muchas expresiones en el lenguaje en el mundo hispanohablante. Por ejemplo, “decir papas” significa decir mentiras o “no saber ni papa” expresa no saber nada y “papear” es sinónimo de comer.

Está en el cuarto lugar entre los cultivos más importantes del mundo y superado su cultivo sólo por el trigo, el maíz y el arroz. Su gran adaptabilidad es una ventaja ya que puede crecer tanto en las zonas templadas como en las tropicales y las húmedas.

No tiene muchas calorías y contiene un 80% de agua. El resto está compuesto por fécula, azúcar, fibras, minerales y vitaminas B1 y B2. Su utilidad es muy variada. Con ella se puede hacer vodka, cola y combustible para autos.

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Reviews

Language Policy and Identity Politics in the United States. (2000). By Ronald Schmidt, Sr. Philadelphia: Temple University Press.

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Language Policy and Identity Politics in the United States by Ronald Schmidt, Sr. explores the sociopolitical and sociohistorical forces that divide the country over such issues as educational policy for language minority students. It includes bilingual education legislation, linguistic access to political and civil rights (including voting rights and language use in the workplace). Also the English-only movement and related issues like the use of Ebonics in educational settings is included. Historically as well as currently, these issues have engendered controversy and debate, often polarizing the public into assimilationist or pluralist camps.

Rather than espouse one faction over the other, Schmidt examines seminal events in the language policy arena and deconstructs the narratives and beliefs that buttress each side's position: preserving the common good for the assimilationists and achieving minority equity for the pluralists. In the end, Schmidt proposes a "pluralistic integrationist" view, a middle ground that attempts to honor the most deeply held values of both sides.

The book is organized into three main parts: Part I details the development of conflict in U.S. language policy since the 1960s, Part II explores the arguments and narratives that underlie the political agendas of the two factions, and Part III critically analyzes specific points of disagreement and offers suggestions for a resolution of seemingly irreconcilable differences. A central characteristic of the work is Schmidt's commitment to "value-critical analysis" (Rein, 1971), an approach that includes researcher values and biases as objects of examination in the ongoing analysis.

In Chapters 2 and 3, Schmidt clarifies the link between language and identity, commonly viewed as either ethnic or national identity. Schmidt further emphasizes the "constitutive" and "relational" nature of language as well as its role in forging one's social identity, both inherited from one's historical roots as well as constituted and reconstituted within the contexts of one's life. Although people may experience multiple identities through the many roles they play over a lifetime, it is their national or ethnic identity that likely corresponds to the language they speak. It is thus not surprising that an assault on a person's language (for example, prohibiting its use in the workplace) may easily be taken as an assault on his or her identity. It is, Schmidt maintains, nothing less than the strong emotions linked with identity that emerge whenever conflicts over language policy occur.

Chapters 4, 5, and 6 revisit history from both assimilationist and pluralist perspectives. Assimilationists, Schmidt notes, paint a picture of largely

European settlement by an English-speaking majority and subsequent voluntary immigration by groups from other places. Missing from the assimilationist narrative is the fact that the U.S. has been multilingual since its inception, from the Amerindian languages spoken throughout its territory to the varieties of French spoken by inhabitants of the Louisiana Purchase territory and of Spanish spoken by inhabitants of the southwest territory annexed from Mexico. If our linguistic heritage is to be preserved, Schmidt argues, it cannot be an English-only heritage. In contrast, pluralists tend to emphasize the social and economic inequities that have historically occurred for minorities along racial, cultural, and linguistic lines. Strident versions of their rhetoric, however, can foster oppositional identities (Ogbu & Matute-Bianchi, 1986), strengthening already existing ethno-racial boundaries and ultimately serving minorities poorly in a society that is sure to remain linguistically if not culturally English-dominant.

Chapters 7 and 8 sketch a vision of what might be. First, Schmidt revisits a salient feature of both camps: assimilationists and pluralists alike agree that it is beneficial to speak English in the U.S. Schmidt insists, however, that assimilationists must relinquish their image of a historically English-speaking nation with language minorities composed largely of groups who immigrated voluntarily and acknowledge the inequities that all too often occur when race and language differ from the norm. As the racial-cultural norm slowly but surely shifts, assimilationists (Euramericans in particular), Schmidt maintains, need to put aside their racially-motivated fears of “disappearing” (i.e., face their identity crisis) and learn to accept and appreciate racial, cultural, and ethnic others.

In Schmidt’s bidirectional model of pluralistic integration, a network of vastly expanded two-way bilingual programs would allow speakers of other languages to learn English while maintaining the heritage language and would also allow native English speakers to learn an array of other languages, thus addressing the national crisis in other-language proficiency. When former monolinguals begin to experience their own multilingualism on a larger scale, Schmidt asserts, then paradigm shifts can occur that will allow a more inclusive and “wider-band” of national identity. Only in this manner does the author foresee a weakening of the racialization and racism that divides the country, accompanied by a more equitable distribution of wealth along lines that correspond more to achievement than to race, culture, ethnicity, or language. Anticipating criticism of this utopian vision, Schmidt notes that greater feats have been accomplished in the U.S., but acknowledges that massive support for such pluralistic integrationist programs would be needed from virtually all sectors of U.S. society.

Despite attributing the notion of “caste-like” minority more to Cummins than to Ogbu (p. 135), this work largely accurately portrays developments in U.S. language policy since the 1960s and provides a thoughtful complement to another recent volume of note on language policy in the U.S., namely Huebner and Davis (1999). Language educators will jump for joy at

Schmidt's vision of a celebration of the many languages that occupy our national territory, and humanitarians will applaud Schmidt's vision of a celebration of the many languages that occupy our national territory, and humanitarians applaud Schmidt's compassionate approach to the historically disadvantaged. However, despite valiant attempts to give assimilationist arguments equal air time, Schmidt often betrays his pluralist leanings, though tempered with cautions against pluralist excesses that would escalate already heated rivalries. The strength of Schmidt's work is its melding of insights from psychology, political science, and sociolinguistics in offering a "way out" of current language policy impasses. While Schmidt's solutions would take years to realize, his analysis advances the language policy dialogue in a much more positive vein than has lately been offered by local pundits and politicians. We can only hope that the latter will read this book.

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Reviewed by *DARÍO BARRERA-PARDO*
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These proceedings constitute the collected papers given at the third conference on the acquisition of L2 phonology, organized by Leather and James, and previously held in the University of Amsterdam in 1990 and 1992. There are 44 original papers by 51 international contributors, coming from four continents because the database of L2 speech is expanding and crucially incorporating material from several typologically unrelated languages (among others, Chinese, Danish, Dutch, German, Italian, Japanese, and Slovak are represented in this volume).

This range of contributions creates critical issues, although certain topics in interlanguage phonology seem to be the common focus of several of these papers. The interaction of markedness universals with acquisition

processes (essentially transfer), levels of structure above the segment (there are seven papers dealing specifically with the acquisition of L2 syllables, and two dealing with L2 rhythmical features), and the links between perception and production constitute the main topics. Other important aspects of L2 phonology addressed in these contributions are the effect of language training, motivational and attitudinal dimensions of pronunciation learning, accent models, perception of vowels, and the representational constituents of transfer (i.e. what gets transferred: phonemes, features, or entire classes of features) during instruction.

In the realm of L2 phonology there is a difficult transition from theoretical analysis to methodology; empirical data reported by researchers in this area are not easily translated into practical classroom solutions, and these data remain for the most part unnoticed by practitioners. Pronunciation teachers who are faced with unsubstantiated statements like “precise pronunciation may be an unrealistic goal for teachers to set for their students and in their teaching” (Pica, 1994, p. 73), have a clear need for an informed response to dogmatic pronouncements of this kind. Such a response would have as a primary objective bridging the gap between theory and practice; in this connection, my chief interest in this review is to show how relevant material reported in the experimental studies of this volume may be usefully related to the teaching practice. To be sure, there are contributions of note that center on L2 phonology theory building or new areas of inquiry (in particular, those of Hancin-Bhatt, “Extended full transfer/access in L2 sound patterns: A prolegomena”, and Wode’s “Where do features, phonemes and their typology come from? A perception-based approach”), but their possible applicability to the second language classroom is less apparent.

Traditionally, L2 phonology was strongly determined by early generativist work that assumed an ‘alphabetic paradigm’, which in essence explains phonological systems in terms of segmental structure (phonemes and their constituent features) arranged in linear sequence. Today we know, however, that many of the typical problems learners experience in controlling L2 speech targets stem from causes that can be better identified (and therefore remedied) at levels of structure which are not segmental or linear. In line with current research, several papers in this volume analyze the acquisition of L2 nonsegmental structure from different angles.

The contribution by Nagai (“Mora timing by British learners of Japanese”) shows that advanced learners of Japanese seem to be aware of the phonological significance of mora-timing (distinguishing for example between a longer /b/ in *baaku*, and a shorter one in *baku*), and that they effectively implement it in their speech. Similarly to stress- and syllable-timing, the phonetic reality of mora-timing has been disputed by experimental testing; teachers of Japanese, however, may want to consider Nagai’s conclusion that “a foreign accent in Japanese is closely connected with the timing-control of articulation” (p. 245), and incorporate mora-timing as a valid methodological principle in their teaching.

Texeira Rebello, in a study of the production of initial /s/ clusters in various phonological contexts by Brazilian learners ("The acquisition of English initial /s/ clusters by Brazilian EFL learners"), presents a number of interesting conclusions drawn from data regarding cluster markedness and frequency of epenthesis. First, the bilateral clusters /st, sk, sp/ and the trilateral clusters /spʰ, spl, stʰ, skw, skʰ/ should be presented after the less marked /sm, sn, sl/. Second, context was found to be a significant factor, from easiest to most difficult: voiceless consonants, voiced consonants, vowels, and utterance-final position. Finally, linking as a fluency strategy should be stressed in the teaching of these clusters, because Texeria Rebello found that the rate of epenthesis increased in pauses. A potential design weakness in this experiment is that, as is well-known from other L2 studies, the formality of the task is correlated with production of epenthesis, and the participants of this study were asked to read a number of sentences.

A related paper is that of Baptista & Da Silvo Filho ("The influence of markedness and syllable contact on the production of English final consonants by EFL learners"), which explored the production of single-consonant codas again by Brazilian speakers. The authors reach the conclusion that final consonants should be treated "as a separate teaching problem" (p. 33), because their markedness implications do not mirror other syllabic positions (essentially onsets). Baptista & Da Silvo Filho further recommend to teach (in the coda target position) sonorants before obstruents, stops before fricatives and affricates, and bilabials before alveolars and velars.

Phonetic similarity has been generally acknowledged to play a role in learning speed at L2 speech structures. Major's paper ("Further Evidence for the Similarity Differential Rate Hypothesis") reviews five previous studies testing his hypothesis that "the rates of acquisition for dissimilar phenomena are higher than for similar phenomena" (p. 215), technically known as the Similarity Differential Rate Hypothesis (SDRH). Although these studies, Major claims, verify the SDRH is to be taken with caution (the statistical significance of four of the studies was not gauged), its implications are crucial for teaching; however, as he recognizes, determining what is 'similar' and 'dissimilar' is not a simple matter.

The complex interactions between a given structure (be it a feature, a phoneme, or a consonant cluster) and its context is the specific focus of a few contributions in the volume. Lambacher, Martens, Nelson & Berman ("Perception of English Voiceless Fricatives by Native Speakers of Japanese") found that the identification of voiceless fricatives was dependent on vowel environment and consonant position; thus, when heard in the context of the vowel /i/, the confusability between /s/ and /ʃ/ increases considerably, and /h/ and /f/ also increase confusability in the /u/ context. García Lecumberri & Cenoz, investigating the discrimination of English vowels by Spanish-speaking learners ("Identification by L2 learners of English Vowels in Different Phonetic Contexts"), found a strong effect for coda type, the most favorable context being voiced stops, whereas the lateral was the most disfavoring context. The latter observation implies (among other things) that practicing minimal pairs

like *bell/bill*, *feel/fill*, or *hall/whole*, often found in pronunciation textbooks, might be avoided at least for training purposes. More expectedly, it was also found that long/short vowels seem to be confused due to durational effects, so “trainers must insist on the qualitative difference between these vowel pairs particularly to avoid duration being a misleading factor in their recognition” (p. 201).

Although these particular results could seem anecdotal to practitioners, there is a body of previous research that has also emphasized (unsuccessfully, so far) the need to address contextual effects in pronunciation teaching, or at least in the development of L2 speech materials. For example, Yavas (1994) after reviewing several experimental studies focusing on devoicing of English word-final stops, suggests “words with final bilabial stops that are preceded by low vowels” as the most favorable context for producing voiced stops in *isolated words* (specific examples would be ‘tub’, ‘cab’, and ‘rob’) (p. 276). The next favorable context is the bilabial stop preceded by a high vowel (as in ‘rib’), and then the alveolar stop after a low vowel (‘bed’), to finish with the alveolar after a high vowel (e.g. ‘rude’). In *contextualized targets*, Yavas recommends practicing the voiced stop before the following rank of environments: vowel, voiced consonant, voiceless consonant, and pause (p. 277). A quick inspection of current pronunciation resources will reveal that final voiced stops, a difficult target for most learners of English, are not graded according to any of these substantiated recommendations (or to any other discernible criterion). Perhaps a well-founded approach to pronunciation teaching would benefit from the teamwork of active researchers and materials developers.

A wider issue that affects teachers concerns the effect of training, where there is the prevalent idea that pronunciation acquisition is largely dependent on factors that fall out of instructors’ control (two favorites are age and exposure). It is not irrelevant, then, to stress here that interlanguage phonologies are intrinsically developmental, transitional systems, and that in consequence it is doubtful whether much insight can be gained from a learner’s snapshot of a single stage of acquisition: a possible remedy is to conduct well-planned longitudinal experiments. Cenoz and García Lecumberri, in their paper “The acquisition of English vowels: A longitudinal study offer evidence regarding the long-term discriminatory abilities of Spanish-speaking listeners enrolled in a one-year phonetics course, who were given a pre- and a post-test that year, and a follow-up during their third year of studies. They showed that perceptual learning of vowels is not a simple, rectilinear process: “the perception of some vowels and diphthongs **improves** even after the training sessions are over while the perception of other vowels and diphthongs **returns to** a level that is between the pre-test and the post-test or even to a level that is lower than that of the pre-test” (p. 59; emphasis in the original). Progress, regression, and back-and-forth patterns of development are all common in interlanguage phonology, at least when learners’ abilities are investigated diachronically, a factor that teachers may have to take into account when assessing their learners together with the outcomes (and aims) of their own

teaching. The effect of instruction is also addressed by Komar (“Perception and production of the fall-rise tone by Slovene students of English”), showing that systematic training in the perception of intonation improved identification by 50%, although there was no transfer of training to production. Interestingly, Matthews’ study (“The influence of pronunciation training on the perception of second language contrasts”) gives results which point to the opposite direction: training on production transferred to perception, although improvement was found to be determined by type of contrast (the /T/-/f/ contrast showed positive acquisition, but the /r/-/l/ contrast did not). That not all L2 contrasts are perceived nor produced equally is a recurrent observation; the concept of contrast and how it creates structure in the L2 phonology is particularly tractable in the framework of feature geometry (an excellent example is Brown, 1998).

Non-linguistic constraints like attitude and motivation have long been felt to play a role in pronunciation achievement. Although previous research did not validate such a view (e.g. Purcell & Suter, 1980; Thompson, 1991), there is a renewed interest in these extra-linguistic factors; in this volume, Smit & Dalton report on an on-going classroom study (“Motivation in EFL pronunciation learning: A progress report”), finding that motivation remained stable before and after a three month pronunciation summer program for Austrian learners, and also that anxiety significantly decreased by the end of the course. A strong correlation between high intrinsic motivation and learners’ notions of ‘self-efficacy’ was detected; on the other hand, extrinsic motivation did not seem to operate a great deal for these learners. Smit and Dalton also observed that intrinsic motivation was positively correlated with “the preference for active and self-dependent learning strategies in- and outside the pronunciation class” (p. 326), an outcome that, in my opinion, is extremely relevant for L2 speech instructors and materials writers.

Pronunciation teaching has customarily centered on auditory information, to the exclusion of visual information present in human speech: tape-recorded material is the norm in most L2 speech programs, but excluding telephoning and radio-listening, it is hard to think of everyday activities which are exclusively aural. This imbalance can perhaps be redressed by researching the effect of audiovisual training on speech, precisely the focus of Hardison’s contribution (“Bimodal input in second-language speech: Focus on /r/ and /l/”), designed to instruct Japanese and Korean speakers in a problematic English contrast. Hardison found, not surprisingly, that training in audiovisual perception is superior to the audio mode; a more remarkable finding is that training in audiovisual perception resulted in a significant improvement in production. This finding would suggest that incorporating videotaped material (and other visual resources) in the teaching practice could probably foster input enhancement.

In sum, *New Sounds 97* presents a very valuable general outlook of the broad and increasingly heterogeneous area of L2 phonology research. Several of contributions demand from the reader a strong background in current theoretical phonology, but the range of issues and their potential

applicability is so stimulating that even the novice reader will find something to write home about. A minor criticism is that the proceedings should be arranged in sections which reflect the sessions at the conference; in addition, because the range of coverage is unquestionably broad, perhaps an introductory editorial chapter setting the stage could have been included (an excellent overview is provided by Leather, 1999).

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News and Views

It's Not Training, It's Education

Stephen L. Butler

Defense Language Institute Foreign Language Center

You train for replication and educate for innovation.¹

Dr. Richard Elster

According to Department of Defense (DoD) Directive 5160.41, the mission of the Defense Language Institute Foreign Language Center (DLIFLC) is to “provide resident *training* [emphasis added] and nonresident support to language instruction for DoD personnel” (p. 4). At the same time, the mission statement developed internally and presented to the U. S. Department of Education’s National Advisory Committee on Institutional Quality and Integrity in our self-appraisal reads:

The DLIFLC serves as the Defense Department’s primary foreign language teaching and resource center. In order to meet language requirements worldwide, the Institute *educates* [emphasis added] linguists throughout their careers, assesses their capabilities, and provides related services, including program evaluation, technical assistance, and contingency support (p. 7).

Unless you believe that education and training are synonymous, the two mission statements appear to be contradictory in nature and lead to a very important question. Is it training or education? As an Air Force officer with nearly twenty-two years of service who spent much of my career in training and the past nine years in education, the answers are very clear to me. First, education and training are not the same. They are both extremely important in today’s military but serve very different purposes. Second, what takes place in dozens of DLIFLC classrooms for seven hours a day, five days a week, 50 weeks a year is definitely education.

In order to understand why what we do is education, first we need to understand the difference between education and training. From a technical perspective, the difference is readily apparent. For example, The Random House College Dictionary defines training this way: “to develop or form the habits, thoughts, or behavior of (a child or some other person) by discipline and instruction.” In contrast, the same dictionary defines education as follows: “to develop the faculties and powers of a person by teaching, instruction, or schooling.” According to Colonel Gene S. Bartlow, USAF, education teaches us *how* to think while training tells us *what* to think (Air Force Manual [AFM], 1-1, pp. 283, 307).

These definitions lead back to the quote that opened this article. “You train for replication and educate for innovation.” Training is designed to condition soldiers, sailors, airmen, and Marines to perform the correct skill without thinking. This is accomplished through repetition, drills, checklists, and lots of practice. In the Air Force, we train airmen how to fly airplanes, how to fix airplanes, how to load bombs on airplanes, etc. There is only one right way to accomplish each of these tasks and innovation can be extremely dangerous. Major General I. B. Holley, Jr., USAF, summed up this concept when he said training is designed to “acquaint students with correct solutions to specific problems” (AFM, 1-1, p. 307).

Training is extremely important to the majority of missions in the United States military but training is not all we do. Many jobs require education in addition to training because “correct solutions to specific problems” do not always work. In the dynamic world in which our troops operate today, there is often the need for critical thinking and exercising of the intellect that can only be fostered through education. General Holley made this contrast very clear when he defined education as “Instruction to prepare students to define problems in an environment of complexity and uncertainty, to comprehend a range of alternative solutions, and to develop the analytical skills required for reaching preferred solutions” (AFM, 1-1, p. 283).

The fact that training and education are different is not lost on some of our military leaders. In *Joint Vision 2010*, these two concepts are clearly treated as separate entities in a section entitled “Joint Education and Training.” They stress the need for “high quality, realistic, and stressful *training* [emphasis added] that amplifies *education* [emphasis added] and fully prepares our forces for joint operations” (p. 20). They concur with General Holley when they add, “the individual warfighter’s judgment, creativity, and adaptability in the face of highly dynamic situations will be essential to the success of future joint operations” (p. 18). These qualities certainly will never be achieved through training programs that emphasize “correct solutions to specific problems.”

Even with this emphasis from the top on education and training as separate functions that are equally important, many of our leaders don’t seem to understand the difference. Lieutenant General Claudia Kennedy, in an article entitled *Meeting the Army’s Needs*, explains “today we have an unstable world that continually prompts us to shift our focus and broaden our field of view” (p. 10). She adds, “we will ensure our soldier-linguists are able to function effectively in increasingly sophisticated language situations” (p. 11) and that “learning cannot end with graduation from DLIFLC” (p. 10). Certainly, each of these statements is more in line with education than training. At the same time, the General uses some form of the word “*train*” over twenty times in the article and never mentions the word “*education*.” What is the reason? Perhaps an outstanding career of over thirty years focused on Army doctrine that emphasizes training and ignores education explains General Kennedy’s position.

Colonel Devlin, the former Commandant of the DLIFLC, has said on several occasions that “the Air Force does a much better job of differentiating between education and training than the Army does.”² Even the names of the major commands reflect this belief. The United States Army has TRADOC, which stands for Training and Doctrine Command while the United States Air Force has AETC, which stands for Air Education and Training Command. The Army doesn’t even mention education in the title of any major command.

Colonel Devlin is correct when he says the Air Force is better than the Army in this regard, but the Air Force doesn’t totally get it either. Most educators in the Air Force will half-jokingly tell you that the “E” in AETC is silent. Perhaps we have emphasized training for so long and it is something we do so well that education gets lost in the shuffle. Having spent several years at Air University, an educational institution, it was obvious to this author that most Air Force leaders love training and merely tolerate education.

For example, I attended a conference at AETC headquarters that was supposed to discuss education and training programs for the new Expeditionary Air Force. The Vice Commander of AETC delivered the opening remarks and talked about the importance of training for 15 minutes, never mentioning education. The conference followed this lead, talking about training for a day and a half, with barely a mention of education. For at least two days at AETC headquarters, the “E” in AETC really was silent.

This focus on training in both the United States Army and United States Air Force, at the expense of education, only reinforces the fact that they truly are different. As Dr. Jerome Smith, the DoD Chancellor of Education, said recently, “education and training are worlds apart.”³ Training is important, but so is education. That’s why we *educate* over 3,500 linguists each year at DLIFLC, the nation’s largest foreign language school.

An examination of the curricula, methods of instruction, teachers, and students at DLIFLC will make it readily apparent that our students are not being trained, they are receiving a foreign language education. A review of the International Language Roundtable (ILR) criteria for a Level 1 speaker indicates that training alone will not produce competent linguists.

The ILR scale goes from Level 0, which is memorized information to Level 5, which is equivalent to a well educated native speaker of the language. Level 1 is a low level that would enable a linguist to accomplish virtually nothing of substance in the language. Yet even at this extremely low level of proficiency, “create with the language” is one of the necessary skills. Certainly, we cannot train our young soldiers, sailors, airmen, and Marines to “create with the language.” The very idea of creating places the student into the application category of Blooms Taxonomy,⁴ unreachable through training.

Dr. Ray Clifford, the Provost at DLIFLC created a chart that compares the various domains of Bloom’s Taxonomy to the ILR levels of language proficiency (See Table 1). To graduate from DLIFLC, a student must score a level 2 in listening, a level 2 in reading, and a level 1+ in speaking. As shown in the table, at this level, the student must be capable of performing at Bloom’s category of analysis. The Academic Instructor School at Maxwell Air Force

Base, Alabama, defines analysis as, “the ability to break down material into its component parts to determine the structure of an entity. This may include the identification of parts, study of the relationships of parts, and recognition of the importance of each part.” This definition clearly indicates that it is impossible to train students to the analysis level.

If you’re still not convinced that what we do here at DLIFLC is education, you don’t have to take my word for it. Organizations who examine these issues as their primary function have agreed with this assessment for years. For example, the American Council on Education (ACE) recommends 45 semester hours of college credit for each student who completes any of our basic foreign language programs.

In addition, the Western Association of Schools and Colleges (WASC) has considered our institution worthy of accreditation as a two-year educational institution for over 20 years. WASC visited our school in February 2000, reaffirming this accreditation. In fact, they even commented in their report that our mission statement should be revised to reflect our mission more accurately as education. They also said of our Educational Programs, “commitment to program quality and excellent teaching and learning is clearly demonstrated at DLIFLC” (WASC Evaluation Report, p. 14).

Finally, the United States Department of Education’s National Advisory Committee on Institutional Quality and Integrity sent a team to assess our programs in September 1999. The entire committee voted unanimously in December 2000 for a recommendation to the United States House of Representatives that will give DLIFLC authority to award an Associate of Arts in Foreign Language degree. We received a letter from the Secretary of Education dated February 22, 2000 stating that he concurred with the recommendation. The letter concluded with these words, “*Our mission is to ensure equal access to education and to promote educational excellence throughout the nation.*” Each of these professional educational groups is in total agreement that our programs constitute education.

Our soldiers, sailors, airmen, and Marines receive valuable military *training* every day before 0745 and after 1545. In between, nearly 800 professional teachers provide a world-class foreign language *education* in 21 languages to some of the finest young people in America. Ask any of these students about their experience at DLIFLC and you will get the same answer. They will tell you it is educación (Spanish), éducation (French), Ausbildung (German), formazione (Italian), instrução (Portuguese), obrazovanje (Serbian/Croatian), instruktá• (Czech), pinag-aralan (Tagalog), ἱδρῶσις (Greek), or wykształcenie (Polish). You see, it doesn’t matter what the language is, it’s not training, it’s **education**.

Table 1. Distance Learning: Information Distribution and Learning Systems*

I L R	<i>Learning Objective¹</i>	<i>Starting Point</i>	<i>Student Learning Activities²</i>	<i>Process Check and Follow-up</i>	<i>Summative Assessment</i>
0	<i>Memorization, recognition, and supporting skills e.g. Vocabulary, grammar, cultural awareness, etc.</i>	Access (data sources, resource objects)	Memorize Reproduce Match	Student Initialed	Machine scorable tests
0+	<i>Comprehension and prodction of words, phrases, rules and cultural facts.</i>	Presentations (organized data, sequenced resource objects, motivational activities)	Convert Paraphrase Explain	A learning environment with interactive cycles of diagnosis, formative feedback, and revised presentations	Assessment activities that are matched the lesson's activities and to the desired instructional objectives
1	<i>Application of knowledge and skills to create and understand new sentence length communications.</i>		Produce Manipulate Solve		
2	<i>Analysis and definition of factual relationships through paragraph length communications.</i>		Describe Differentiate Illustrate		
3	<i>Synthesis of the language components to produce and comprehend communications that logically defend points of view, hypothesize, and deal with the abstract.</i>		Rewrite Infer Create		
4	<i>Evaluation and persuasion through refined use of language, literary, and rhetorical skills</i>		Debate Persuade Editorialize		

*Ray T. Clifford; 30 March 1999

¹Adapted from Bloom, B.S., et al. 1956. *Taxonomy of Educational Objectives: Cognitive Domain*. New York: McKay

² Adapted from Gronlund, N. E., 1970 *Stating behavior objectives for classroom instruction*. New York: MacMillan, 1970

Notes

- ¹ This quote came from Dr. Elster's opening remarks to the Federal Degree Granting Institution conference at the Naval Postgraduate School in October 1999.
- ² The author has nearly daily contact with Colonel Devlin and has heard him make this statement many times.
- ³ Dr. Smith's remarks were made at the Uniformed Services University of the Health Sciences in a speech to the Federal Degree Granting Institutions on October 24, 2000.
- ⁴ Bloom's Taxonomy "is intended to provide for classification of the goals of our educational system" (Bloom, 1956, p. 1).

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Army Language Training in the 21st Century

Ray Lane Aldrich

Foreign Language Proponency Office of the United States Army

The Star Trek Universal Translator is back-ordered. Until it shows up in the Army supply system, there will be no substitute for an intelligent, highly skilled linguist. *Joint Vision (JV2010)* provides us a blueprint for finding, building and using these linguists. Technology will provide the tools to support and augment them as we meet the global requirements of the 21st Century.

Joint Vision 2010

“Advancing Technology Trends” and the “Implications of Technological Advances” are key components within *JV2010* that will allow us to achieve new levels of effectiveness within linguist use and language training.

Advancing Technology Trends

“Advancing Technology Trends” challenge us to understand technology as it develops. We must then mold it to the needs of the Army’s leaders, the individual linguist, and the foreign language teacher. Much of today’s technology is not focused on foreign languages. If the technology can be used, the foreign language community must take part in the development process. We must take advantage of technology in order to continue to function internationally. During the current era of decreasing manpower and budgets this divergence of demand and budget creates a gap that can best be filled by technology.

Implications of Technological Advances

The “Implications of Technological Advances” are that linguists must either keep up or be left behind. The modern battlefield is increasingly mobile and increasingly lethal. The linguists must be at home there. They must also be able to exploit situations where force is not the right answer. Surrounded by strangers who might be either friends or enemies, the ability to understand what they are saying may well mean the difference between success and failure or life and death. Technological aids can assist both the commander and the individual in dealing intelligently with these mysterious situations.

The soldiers on the ground may have access to a “linguist-in-the-loop” that will provide them with an interpreter via cell phone or radio link. They might even carry a hand-held one-way translator.

The commanders will have access to a much broader range of technology. Machine translation programs will augment, but not replace, headquarters linguists, both those physically present and those present only electronically. The commanders' appetite and need for screened and translated foreign language material will be nearly insatiable. They will need all of the augmenting technology they can get their hands on.

Language Training for the 21st Century

The Army has not waited for the millennium to identify its future training needs. The tools and technology have already begun to change and we are already redirecting our efforts. Essential proficiency levels are rising. Fewer linguists in a smaller Army are being tasked with a growing number of more difficult targets. As the Army grows smaller, the responsibility of both the Intelligence and Foreign Language Communities increases. A smaller Army, because of its decreased presence and an increased need to be more responsive in extraordinary situations, must be more vigilant and, therefore, improve and expand intelligence.

An expanded workload for a shrinking workforce calls for linguists who can be more productive. The National Security Agency (NSA) has estimated that a linguist at the 3/3 level (general professional proficiency in Listening/Reading) can accomplish at least four times as much work as a 2/2 linguist (limited working proficiency). The Army's current Standard is 2/2. Increased proficiency not only provides increased production, it provides increased understanding.

Increased Sophistication Requires Increased Proficiency

Increasingly sophisticated communications, targets, and foes also drive the requirement for high levels of language proficiency. Methods of communication are becoming both more convenient and more sophisticated. The wireless phone is everywhere, flooding the air with civilian and military "stream-of-consciousness" conversations to seemingly random phone numbers. This type of exchange is much more difficult to understand than the historical standard of fixed military frequencies and terse, formatted exchanges.

The targets of military voice interceptors are expected to expand well beyond the historically important military formations and networks. Terrorists and para-military groups are expected to become more and more of a threat. This expansion will require greater linguistic proficiency as the topics and conversations are much broader and far less stereotyped.

Recent history has increased the potential number of enemies we face as it has increased the number of languages in which we have to establish proficiency. The relatively stable Warsaw Pact/Communist axis that we confronted in the past has become a shifting, seemingly daily changing, mix of South West Asian, Balkan, Pacific Rim, and African languages that makes the tower of Babel more and more of an actual problem.

Ten years ago the Army Standard for language proficiency was 1/1 (Elementary Proficiency). As our understanding of our targets and our needs has continued to improve, we have increased our Standard to the 2/2 level (Limited Working Proficiency). Many targets, according to the NSA, require 3/3 (General Professional Level) proficiency. In addition to increasing the proficiency level, the Army has also raised the proficiency level at which we pay Foreign Language Proficiency Pay (FLPP) as an incentive. As early as five years ago we paid FLPP bonuses to some linguists at the 1+/1+ level; now we pay only soldiers who maintain 2/2 or higher.

Instructors are Key

Even Star Trek technology will not diminish the key role of human instructors. Only a human has the ability to deal with original student expression. The unexpected answers and questions posed by another human are one of the characteristics of advanced language proficiency. The ideal foreign language instructor combines native fluency with specific training in the unique characteristics of teaching a foreign language. Native fluency enables the instructor to not only serve as a proper model for pronunciation and grammar, but also generally ensures area and cultural knowledge. Less fluent, nonnative instructors run the danger of teaching their own nonnative influences to receptive students.

Teacher training ensures that the individual is the focus of learning. It is not enough to be simply a “native speaker;” just as it is not enough to be simply a “trained teacher.” In order to teach foreign languages, particularly at the high level needed by the military, one must be both a teacher and have a native level of proficiency in the language.

Computer Assistance

Computer-Assisted Language Learning (CALL) can be a valuable aid to language training. These programs can assume many of the early guidance and correction functions traditionally performed by classroom teachers. They are tireless and can significantly increase the student’s language contact hours.

Communications and Grading Programs, not specific to language training at all, can ease the teacher’s job. Communications programs allow the teacher and student to communicate, regardless of the time of day. Homework tracking and consolidation of student effort on a network, no matter how simple the network, can allow the instructor improved access to the students’ work and can aid in monitoring progress. Grading programs assist with many of the daily record-keeping tasks and allow the teacher to concentrate on teaching. Instructor use of spell and grammar checkers can aid the teacher in quickly locating the students’ most obvious errors.

Expanded access to authentic source material provides a valuable extra dimension to foreign language training. In the past, instructors have

been forcibly drawn away from teaching by the need to create authentic materials. Students have had limited access to the “real language.”

Internet and World Wide Web access is valuable to both the instructor and student communities. Access to current events and cultural focus provides instructors with teaching material to augment and demonstrate the language training points contained in their curriculum. Independent study projects open up a valuable opportunity for students to expand their linguistic abilities and gain experience in the use of authentic language.

Joint Vision 2010 and 21st Century Language Training

Language training initiatives are in step with *JV2010*. This “Joint Vision” projects into our future; it intends to ensure that we are on course toward the most capable and flexible military possible. The military’s requirement for capability, flexibility, and global reach guides and demands the implementation of modern foreign language technology. In order to keep pace with the needs of the future, our linguists and our trainers must take advantage of all applicable technological developments. These developments, combined with basic, human-focused training, will prepare our linguists for 2020 and beyond. Even after the Army supply system delivers the Universal Translator.

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***Language Training Opportunities
Today and Tomorrow***

2000 Command Language Program Manager Seminar

Joseph Orr

Academic Journals

The current and future forms of foreign language training were displayed and discussed this May 22-24 at the Monterey Beach Hotel in Monterey, California, as part of the Sixth Annual Command Language Program Manager Seminar hosted by the Defense Language Institute Foreign Language Center (DLIFLC).

Colonel Daniel D. Devlin, Commandant of the DLIFLC, underscored the theme—*Language Training Opportunities: Today and Tomorrow*—in his opening remarks by enumerating the advancements made by personnel studying at the DLIFLC, and the improvements he foresaw in the near future.

He began with the most basic demonstrator of the students' language proficiency—the Defense Language Proficiency Test (DLPT).

"There is not a class that we're graduating here now—regardless of the difficulty of the language—that is not graduating students with 3/3/2+ scores," said Colonel Devlin. He referred to DLPT results well above the minimum score of level two in reading, writing and speaking. "These numbers continue to go up," he continued. "There's no way you can cut them that looks bad."

And the good news extended beyond the high grades.

"The number of students graduating is up; the number of students making it through (the class) the first time without any roll-backs (because of deficiencies) is up, the attrition rates are down, the graduation rate is up, and the quality of the students is up," Colonel Devlin noted.

What was the reason for this recent success?

"There is no pattern you can establish, other than team teaching, better curriculum, better understanding of how to get through to students, more emphasis on speaking—which shows up in higher listening and reading scores—and cooperation of the class and the instructors in a way in which they bond," said Colonel Devlin.

The new emphasis on speaking skills came with the realization that all linguists are likely to be called on to speak some day, in addition to simply listening, Colonel Devlin explained.

The renewed importance of speech—and the resulting high level of student-teacher interaction—has played a role in the recent success of the Persian-Farsi program in particular.

“Why has Persian-Farsi been so successful at graduating 100% of students at 2/2/2? It’s because our instructors have bought into the concept that their success is based on the success of the student,” said Colonel Devlin.

One reason for this change could be that all teachers’ bonuses are now tied to student performance. Another reason may simply be that instructors now employed at DLIFLC have higher qualifications than ever.

“Hiring native linguists is not good enough any more,” Colonel Devlin explained. “It is now necessary to hire those with Ph.D., Master, and Bachelor degrees in teaching.”

Colonel Devlin also praised the other half of the learning duality: the students.

“They are focused, smart, and in pretty good physical shape,” said Colonel Devlin of today’s servicemembers. “It’s exciting to work with them: They’re great students.”

Colonel Devlin then transitioned to the DLIFLC’s plans for the future, including a number of building projects.

There is nowhere yet for the School of Continuing Education, Colonel Devlin pointed out, as every building on post is currently full. However, two of the projects scheduled for this year may alleviate some of that congestion. The first is the Consolidated Video Teletraining Facility—to be placed next to the Video Teleconferencing Facility—which will be the first building at the DLIFLC designed exclusively for distance language teaching. Funding has also been approved for one-third of a General Instructional Facility, though Colonel Devlin said he still hopes to secure funding for a full facility.

Of the two building projects scheduled for next year, the first is the completion of barracks begun two and a half years ago, and the second is the construction of a building originally designed to hold mainframe computers, but which will now be set aside for use by the Director of Management Staff and the School of Continuing Education.

Colonel Devlin also noted that the DLIFLC stood to gain from a recent Training and Doctrine Command (TRADOC) assessment granting a higher budget, an increased manpower allotment, an exemption from Army and TRADOC taxes amounting to somewhere between \$3 and \$8 million, and an additional \$45 million over five years to assist in curriculum development.

Colonel Devlin ended his presentation with a succinct summation of the DLIFLC’s strategy, and the impetus behind its future projects: “Our goal here at DLI is to get good linguists to you (the language program managers), and then to help you make them better.”

Linguist Training in the Post-Cold War Era

Following Colonel Devlin was U.S. Army Deputy Chief of Staff for Intelligence, Sergeant Major Mark Maedge. In his keynote speech, Sergeant Major Maedge reminded the attendees that the focus of linguists and linguist training had changed dramatically since the fall of the Berlin Wall.

“During the Cold War the mission was simple: Fight and win a major land war in Europe,” said Sergeant Major Maedge. Military linguists simply had to “stay focused and competent in a narrow range of languages” as determined by readily apparent, largely East European threats.

Since the fall of the Berlin Wall, however, there has been an increase in deployments all over the world. The variety and unpredictability of these deployments puts increased stress on language program managers to keep the linguists under their command practiced and primed in their expertise “from cradle to grave,” explained Sergeant Major Maedge,

“It is your primary responsibility, as the command language program managers of your units, to find, coordinate, execute and get feedback on training opportunities for the linguists in your units,” he said.

To do so, in a time of constricting budgets that will no longer support a robust body of linguists, will require flexibility, and a jack-of-all-trades approach by the program managers.

“You must be finance experts, budget experts, telephone personalities, Internet surfers, mobile training team coordinators, translators of language doctrine (government jargon) and new policy in each service,” Sergeant Major Maedge explained. “You must have a total understanding of your unit’s mission.”

This understanding requires a close relationship with commanders, and above all a positive attitude, said Sergeant Major Maedge. The desired result—having every linguist exceed foreign language service requirements—is attainable only by such an energetic and conscientious approach to locating suitable language training.

“The quality of (the linguists’) service in the next millennium will be a function of our collective ability to properly focus that language force, creatively staff it, continuously train it, and correctly advantage it with technology,” said Sergeant Major Maedge, in conclusion.

Distinguished Command Language Programs

Afterwards, there were presentations by representatives of three Command Language Programs (CLPs) that exemplified the high quality of training opportunity described by Sergeant Major Maedge. Featured were the 704th Military Intelligence Brigade of Fort Meade, Maryland and Naval Security

Group Activity of Guantanamo Bay, Cuba. The *CLP of the Year* was the 694th Intelligence Group, also based at Fort Meade. These three were awarded for their outstanding language training capabilities, such as setting up immersion programs, organizing on-site instruction, and contracting trainers. All these activities enabled military linguists of disparate ability levels to meet the requirements in 28 languages.

Language Planning for the New Century

After the recognition of these programs, Glenn H. Nordin, the Assistant Director of Language and Training at the Office of the Secretary of Defense, took the floor. Nordin (himself a longtime Russian linguist) presented the building blocks of a modern strategy for the Defense Foreign Language Program (DFLP), and demonstrated how they were relevant to the language program managers.

The new *DFLP Strategy 2000* is based on current planning guidance and covers foreign language capabilities needed for coalition operations, national security readiness, and information superiority as well as foreign intelligence operations.

The primary tool for successful construction of a strategy or strategic plan is an accurate knowledge: knowledge of the “real world;” knowledge of the current political environment; and an understanding of what exists within that environment. Mr. Nordin pointed out that currently the digital exchange of information is growing exponentially. In the near future, 55% of such communications will be rendered in foreign languages.

Our reason for building the DFLP strategy is our need to develop and maintain a well-trained and experienced work force. Achieving this maintenance would mean halting, or at least diminishing, the outflow of talented linguists from the military into the civilian sector.

“We have a lot of good people out there,” explained Nordin, “but we aren’t retaining them.”

The reasons are essentially twofold. “One, we don’t give them work to do,” said Nordin. “Linguists like to work in their language. We put them places where they don’t perform as the linguists that they are trained to be.”

The second reason for the loss of the highly-trained personnel has more to do with the changing ideals of recently enlisted servicemembers.

“The work ethic today is, ‘What’s in it for me?’” said Nordin, who noted that this kind of self-service prompts military linguists to pursue higher-paying work in the civilian sector rather than re-enlisting in the service.

The largest obstacle to strategy building today, however, is not the lack of linguists but an ignorance of the military’s foreign language needs.

“National policy is not translated into force structure, operations planning, or the commitment of resources,” noted Nordin. The onus of

determining language needs and strategy has for years fallen on military intelligence units.

“The intelligence community should not, cannot, and must not, carry the burden alone anymore,” Nordin said. “It belongs in the operational area as well.”

The goal for the intelligence community, said Nordin, should be to develop a force trained and capable of meeting the wide range of the United States’ language needs.

“We can never hope to maintain all the languages we need at levels we would need them,” explained Nordin. “The national budget couldn’t handle that type of activity. But we can find mechanisms to pull those people together. Our vision then is for an optimal, qualified, language work force.”

This qualification would begin not with military training, but at the earliest levels of schooling.

“Grades K through 16 have to encourage foreign language development,” said Nordin, “so when (Americans) enlist in the Army, they know what a foreign language is.”

Nordin pointed out that less than 10% of schools in the United States have foreign language programs, and that they need involvement on the part of the defense foreign language community to ready them to meet the country’s language needs. Convincing the nation’s leadership of this need, however, will be difficult.

“Language work properly done by translators and interpreters is transparent to our leadership,” stated Nordin. “They don’t see it. The person getting that intelligence report reads it in English, picks up his map—his maps are all in English. They don’t think that somebody translates that somewhere along the line.”

This lack of appreciation results in inadequate planning for national language strategy and policy for long-range missions where linguistic work must be done.

“We need to know how long we are going to be in an area like the Balkans so we can devise a plan and train the number of linguists necessary,” said Nordin. “We’ve got to tell our people to give us that policy.”

In his conclusion, Nordin described several projects that would alleviate some of the manpower, educational, and governmental difficulties associated with running an effective foreign language program.

The first was the National Foreign Language Skills Registry, which would permit the registry of all US citizens wishing to volunteer their language skills for paid or unpaid language work. This would include the estimated 30,000 DoD civilians who have reported language skills but are not working as language specialists.

“Within the next 24 months, we hope to have a registry that will allow a person to volunteer their services for either pay or volunteer work during crisis surge situations (peacekeeping or humanitarian needs),” Nordin explained.

“The staffs of congressmen and senators, together with retired politicians and statesmen, are talking about the need for better foreign language education. The idea of a national center for language and area studies, based on the DLIFLC has been surfaced. I see such a center with east and west campuses (maybe a confluence of DLIFLC and the Foreign Service Institute’s School of Language Studies),” noted Nordin.

Another governmental action to further the goals of the linguist community is the proposed investment of \$80 million in the Department of Education to develop various language courses, Nordin said.

Service Initiatives

Army

In the first of the program updates given by each of the services, the Army’s Chief Warrant Officer 5 Keith Reigart described the Army Language Master Plan—a look at the tactical needs of the Army. The Master Plan will determine the breakdown of particular languages in go-to-war components. In addition, a study requested by the Army Chief of Staff on the readiness of the Army linguist force has determined a “Get Well Plan.” For next summer, Army’s Chief Warrant Officer 5 Reigart noted that the second phase of Army Language Master Plan would go into effect, examining the roles of non-military intelligence linguists. Training would also change somewhat, with the addition of more seats for intermediate and advanced language students at DLIFLC. Emphasis will also be placed on bringing more linguists into the force, said Chief Warrant Officer 5 Reigart.

Air Force

The Air Force program update contrasted the effectiveness of its linguists with its difficulty in meeting personnel requirements. Master Sergeant Anji Curry explained that the year had gone badly for recruiting, resulting in a deficiency in linguists in coming years. Retention of linguists that have already been trained has also proven difficult, she said, despite reenlistment bonuses up to \$60,000 and up to \$300 in language pay. The manning problem is particularly severe among the airborne cryptological linguists.

“We have more ground linguists than we really need,” she said, “but too few airborne linguists.”

On the positive side, Master Sergeant Curry noted, the quality of linguists in the Air Force has improved. In 1995, only 59% of Air Force language students scored 2/2 or better on the DLPT, whereas by 1999, that number had

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increased to 75%. She added, though, that the Air Force was having the most trouble training linguists in Korean and Arabic, two of the more difficult languages at DLIFLC.

In summary, Master Sergeant Curry said that “our program is healthy as far as reaching its qualification goals, but our retention and recruiting are down.”

Navy

Recent technological advances designed to ease the job of the linguist dominated the Navy’s update. In particular, a joint project between the Air Force and the Navy to produce voice-processing program is nearing completion. The \$10 million program, in its sixth year of development, is designed to sort intercepted communications based on voice and non-voice signals, the language spoken, the specific speaker, and the message’s platform type with 80% accuracy. The physical voice-processing unit, versatile enough to be deployed on ships, subs, and aircraft, is now being moved from testing out to the fleet, with similar systems to be used by the Coast Guard, the Air Force, the Drug Enforcement Agency, and special operations units.

Marine Corps

The Marine Corps program update, presented by Captain David Reynolds, unveiled an initiative to tap into the natural language capabilities of Marines entering the service. Known as the Language Identification Program, it was implemented in April to screen Marine recruits for language capabilities.

“(The program) identifies recruits in the pipeline if they can read, write, or speak a language,” said Captain Reynolds. “They are then further screened and given the DLPT.”

Those Marines who score above a 2/2 are then designated as 8611s—meaning they are proficient in a second language. They continue to work at their military specialties, but are marked to assume the role of linguist as necessary.

“These people have a primary military mission,” said Captain Reynolds. “But they can be tapped (for interpreter work) when needed.”

With its 8611s handling more basic communication needs, the Marine Corps—which at just five battalions has the smallest linguist force of any of the services—could then free its scarce cryptological Marines to concentrate on interpretation and liaison activities, explained Captain Reynolds.

So far the one-month-old project has identified over 420 Marines as 8611s, with abilities accounting for 36 foreign languages, Captain Reynolds

said.

New Initiatives

Arabic in Action

The way Arabic is taught at the DLIFLC is about to change dramatically. “The existing Arabic program is based on a communicative approach to teaching a foreign language,” explained Sergeant First Class Omar Kalai. “It is designed to produce linguists who can narrate in the past, present and future, discuss current events, or buy plane tickets or a meal in a restaurant.” Unfortunately, however, this kind of instruction lacks the military terminology with which the Arabic linguist must be familiar, said Sergeant First Class Kalai. That was why the *Arabic in Action* course was developed: to instruct military linguists with the scenarios and vocabulary of modern conflict.

“(The program) trains the basic course students in job related skills and sustains service members in the field with a ready-made training package,” said Sergeant First Class Kalai.

Arabic in Action runs the gamut of military training, beginning with the recognition of rank structure, drill and ceremony, weapons and aviation, common skills tasking, and listening to radio interceptions recorded with all the realism of digitized static. Additionally, it uses authentic open source Middle Eastern documents, two-way interpretation, psychological operations—including 10 samples of authentic materials that were disseminated during the Gulf War—and map-reading exercises.

Sergeant First Class Kalai said that he expects an expansion of *Arabic in Action* to include three additional volumes. Volume Two will contain operation orders, training schedules, classes and authentic information briefings. Volume Three will cover naval, air, and amphibious operations in a joint environment, and Volume Four will encompass nuclear, biological and chemical warfare training and vocabulary.

These volumes will be designated for field use only, and will not be taught at the DLIFLC as Volume One is, said Sergeant First Class Kalai.

As a learning tool, *Arabic in Action* will not be simply limited to Arabic linguists, however.

“The program is to be used as a template for other languages to emulate,” said Sergeant First Class Kalai, indicating that an entire line of language programs in the style of *Arabic in Action* could be expected in the near future.

Arabic in Action is available both on LingNet and in a CD-ROM

version. This is part of an effort to distribute the program widely, to assist as many linguists as possible.

“Our vision is to give each DLI linguist an instructor’s copy of *Arabic in Action* on CD/ROM upon graduation,” said Sergeant First Class Kalai.

Web-Based Language Training

Patricia Craig of the National Cryptological School presented a similar advancement in teaching tools: a language instruction program for Web-based training in continuing education.

“This isn’t going to take the instructor away from the podium,” said Craig. “It will be used for remediation, for enhancement, and for practice.”

A major benefit of the program is its versatility, being accessible by computer from cyberspace.

“It can deliver (language instruction) to the field—anytime, anywhere,” said Craig.

The first module developed for Arabic presents cultural and language instruction in 24-hours-worth of graphically-oriented learning material, making extensive use of audio and video clips.

The program is aimed at keeping experienced linguists’ skills sharp, and is geared toward an ability level of 3+.

“This was developed to keep operators in practice during their off-hours,” explained Craig, who then noted that the course could be pared down into individual modules, should a linguist only need to work on part of the course.

Another benefit of the module, Craig pointed out, is the speed with which it can be converted from the original Arabic into other languages.

“Once we develop the code,” she said, “we can just strip the text and replace it with the new language. We can turn out a new course in about a month to a month and a half.”

The program, whose production was funded by the National Security Agency, is available on WebTrain.

School for Continuing Education

As evidenced by *Arabic in Action*, the DLIFLC is attempting to play a larger role in the maintenance and retention of language skills by military linguists. Another of the Institute’s initiatives is the School of Continuing Education, a high-tech enterprise aimed at bringing the language training resources of the DLIFLC to the linguists no matter where in the world they find themselves.

“We are in the process of helping linguists continue the development of their language skills,” said Dr. Thomas Perry, spokesman for the School of

Continuing Education. “This is DLIFLC’s most exciting new initiative. (The School for Continuing Education) has now been formed officially—within the last month and a half or so—to meet the needs of non-resident students.”

The School of Continuing Education has thus become the eighth and newest school at DLIFLC, on par with European I and Asian II. It features instruction in the Institute’s six most commonly taught languages—Arabic, Chinese, Korean, Persian, Russian, and Spanish—in addition to one of its most necessary—Serbo-Croatian. It will also solve some personnel problems.

“The real burden for us had been in our resident program,” Dr. Perry explained of the problems associated with drawing instructors away from their classrooms to do continuing education work. But the school will have a full-time cadre for the first time, thus alleviating the former drain on instructors.

“It will also give us the opportunity to corral funds to meet requirements and the growth of requirements that will occur over the next several years,” Dr. Perry said.

The advantages of the new School of Continuing Education are considerable, and its goals are lofty.

“The school will have the largest potential student body of any of the schools,” Dr. Perry noted, “providing service that will reach out to 23,000 linguists in the field.”

The School of Continuing Education provides these linguists with some of the best distance learning services available, including diagnostic assessment, Video Tele-Training (VTT) instruction, Mobile Training Team (MTT) instruction, speaking tests, translation and interpretation services, and contingency support (for situations such as that in the Balkans.)

Dr. Perry also pointed out that there was a considerable number of distance learning services and technologies in development that would soon be added to the school’s repertoire.

“We’re working to build symmetry between emerging and existing language learning services,” he said. Such emerging services include *Dial-A-Language Interpreting* (to assist in translation over the phone), language specific education for the Army’s 97L linguists, Language Training Detachment supervision that would put instructors directly into the field and decrease the need for MTTs, teacher supported instruction over the Web, and a *Linguist HelpLine* that would answer language questions via LingNet.

Although the School of Continuing Education will offer such a wide array of services, each instructor will be capable of implementing any of them for students’ language needs.

“Instructors are to be trained in all areas offered by the school,” said Dr. Perry. “We will have people cross-trained in all of those skills so they can truly be functional anywhere they need to be.”

Since all instructors will have received the same training, there will be an egalitarian feel within the school, facilitating the spread of information.

“There’s integration among functions,” said Dr. Perry. “We avoid hierarchy, so there is good, clean communication and interaction, and we believe we’ll have great things happen with this synergy.”

By benefiting the instructors as much as the students, the School of Continuing Education stands to improve the DLIFLC most of all.

“This is a great opportunity for instructors to develop a variety of skills and techniques that they can take back to the classroom with them,” Dr. Perry noted.

Immersion Training

On day three of the seminar, Dr. Gordon Jackson presented his brief summation of the recently released research report titled *A Guide for Evaluating Foreign Language Immersion Training*.

The report, produced by Litton/PRC, was designed to give the intelligence community at large a better idea of just what an immersion program is, and what goes into choosing a superior one for language training.

“As we talked with different people about immersions, we got as many different definitions as people that we talked to,” explained Dr. Jackson. “So one of the things we wanted to do was to develop the taxonomy of immersion programs and also to provide sets of instructions and procedures that can be used to evaluate an immersion program.”

Such evaluation can be accomplished using the ideal immersion model developed within the report.

“When we talk about the ideal model for immersion training, we’re talking about a long term stay in a country, learning the language not in the classroom but primarily in the real world through exposure to the language as it is used in real life situations,” Dr. Jackson said.

Dr. Jackson then broke the typical immersion into its three major qualities, and expounded on each.

“Immersions are rich, real, and self-regulated,” pointed out Dr. Jackson. “They are rich in the opportunities to use the language, and the quantity of language input to which one is exposed—which may sometimes feel overabundant.”

The range of topics and wide mix of communicative media with which the language learner must work also add to this richness, he said. Further, the reality of the immersion experience is felt in the consequences of knowing—or not knowing—the language well enough to communicate.

“There may not be a safety net for you,” said Dr. Jackson of harsh immersion reality. “I always advise people: Find a native speaker who can be a

resource for you, that you can go to with questions about the language and culture.”

Finally, Dr. Jackson described the necessity of motivation and assertiveness for self-regulated learning.

“The learner is responsible for his or her own learning, and it must be a self-directed learning,” he said, noting that the timid, those averse to risk-taking, and those without sufficient initiative may have difficulty adjusting and end up behind the learning curve.

Dr. Jackson then presented the benefits of studying in an immersion environment. He noted gains in sociolinguistic competence, fluency, and cultural knowledge.

“People really start to speak the language,” he said, adding that *consolidation* was also an important benefit.

“Consolidation is that point where things seem to come together for you,” said Dr. Jackson. “It’s the point where everything gels.”

The long-term gains that the report found are generally in the areas of motivation, risk-taking, self-directed learning, social strategy use, and language use—proving the immersion experience to build character as much as vocabulary.

The key is to maximize these benefits by making an informed choice about what immersion program to use, said Dr. Jackson.

“You have to ask, ‘How much bang for the buck am I going to get out of a program of a different type?’” he explained. “If you’re evaluating an immersion you have to decide what you want to evaluate. Do you just want to look at immediate effects, long term effects? And how are you going to evaluate that using tests and questionnaires?”

Dr. Jackson used the DLPT as an example of a test that could be used to determine if a linguist had become more proficient during his stay in an immersion program. However, this method isn’t always practical.

“A training program has to be at least five weeks in length, otherwise you can’t use the DLPT,” pointed out Dr. Jackson. “So if you need to show your commander movement—change in proficiency—how can you do that?”

The answer was a method presented in the report: Can-Do Scales. These scales rate the confidence of a linguist both before and after an immersion in such language-related tasks as asking for directions, or persuading a native speaker to take some course of action. An evaluator can see improvements by comparing the scales from before the program to the can-do responses afterwards.

There are, however, some difficulties with this method.

“One tricky thing about can-do statements is that if someone has never been abroad before, they might overestimate their ability to communicate,” said Dr. Jackson. “Then they actually find after they come back that they might rate their ability lower than it was before they left.”

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Another problem comes when the person using the can-do statement has something to gain or lose based on an honest response to the questions, he added.

The DLPT and the Can-Do Scales are only two ways to measure the long-term benefits of immersion; other means include surveys and questionnaires, interviews, and diaries and logs, any of which will aid the evaluation process for a language program manager, Dr. Jackson said.

Once able to decide what immersion program best fits the needs of an individual program, managers then need to refine the program to customize it, and increase its utility, Dr. Jackson stressed.

“One of the things I would recommend to you is that you ask immersion providers to tailor the immersion to your needs, to the needs of your personnel, and then use the can-do statements to measure progress,” he explained.

The *Guide for Evaluating Foreign Language Immersion Training* is available on LingNet, at <http://lingnet.org>, in the reading room, on the miscellaneous reports and articles bookshelf.

In summary, the Sixth CLPM Seminar focused on language training opportunities available now, and those to arrive in the near future. Current training, coupled with training plans on the drawing board, bode well for the military. From immersion training to additional schooling, and from the LingNet to VTT, the United States’ linguist force will soon be better able than ever before to hone its skills and maintain the high state of readiness demanded of by today’s unstable political climate.

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- Jackson, Gordon L. (2000). Review: *González and Farrell: Composición Práctica*. 11(1), p. 221.
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- Kuo, J. (1997). Review: *Taylor: Writing and Literacy in Chinese, Korean, and Japanese*. 8(1), p. 128.
- Lesikin, Joan. (2000). Review: *Kozyrev: Talk it Over! Talk it Up!* 11(1), p. 217.
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- Mueller, Col. Gunther A. (2000). *Beyond the "Linguist": Global Engagement Skills*. 11(1), p. 15.
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- Woytak, Lidia. (1997). *Linguists in Action: Interview with Colonel Daniel D. Devlin*. 8(2), p. 295.
- Woytak, Lidia. (1998). *Interpreter in Action: Interview with Lieutenant Colonel Richard Francona (Retired)*. 9(1 & 2), p. 121.
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General Information

Calendar of Events*

2001 EVENTS

- 4-7 January, *Linguistic Society of America*, Washington, D.C. Information: Margaret Reynolds, LSA, 1325 18th St, NW, Suite 211, Washington, D.C. 20036; (202) 835-1714, Fax (202) 835-1717, Email [lsa@lsadc.org], Web [www.lsadc.org].
- 24-27 February, *American Association of Applied Linguistics*, St. Louis. Information: AAAL, PO Box 21686, Eagan, MN 55121-0686; (612) 953-0805, Fax (612) 431-8404, Email [aaaloffice@aaal.org], Web [<http://www.aaal.org>].
- 27 February-3 March, *Teachers of English to Speakers of Other Languages*, St. Louis. Information: TESOL, 700 South Washington Street, Suite 200, Alexandria, Virginia 22314; (703) 836-0774, Fax (703) 836-7864, Email [conv@tesol.edu], Web [<http://www.tesol.edu>].
- March 8-10, *Georgetown University Round Table on Languages and Linguistics*, Washington, D.C. Information: GURT 2001, 519-B Intercultural Center, Georgetown University, Washington, D.C. 20057-1045; Email [gurt@gusun.georgetown.edu].
- 8-10 March, *Southern Conference on Language Teaching Joint Conference with South Carolina Foreign Language Teachers Association*, Myrtle Beach. Information: Lynne McClendon, SCOLT Executive Director, 165 Lazy Laurel Chase, Roswell, GA 30076; (770) 992-1256, Fax (770) 992-3464, Email [lynnemcc@mindspring.com].
- 13-16 March, *International Congress of Russian Language Researchers*, The Lomonosov Moscow State University in collaboration with the American Council of Teachers of Russian Language and Literature, Moscow University. Information: Email [ruscongr@philol.msu.ru], Web [<http://www.ruslangcongress.newmail.ru>].
- 13-17 March, *CALICO 2001 Annual Symposium*, Orlando. Information: CALICO, 214 Centennial Hall, Southwest Texas State University, 601 University Drive, San Marcos, TX 78666 USA; (512) 245-1417, Fax (512) 245-9089, Email [info@calico.org], Web [<http://www.calico.org/CALICO01/>].
- 15-17 March, *Ohio Foreign Language Association*, Akron. Information: Bob Ballinger, OFLA, 766 Ashler Ct., Worthington OH 43085; Email [treevid@megsinet.net].
- March 29 – April 1, *Northeast Conference on the Teaching of Foreign Languages*, New York. Information: Northeast Conference, Dickinson College, PO Box 1773, Carlisle, PA 17013-2896; (717) 245-1977, Fax (717) 245-1976, Email [nectfl@dickinson.edu], Web [www.dickinson.edu/nectfl].

- 6-8 April, *National Council of Organizations of Less Commonly Taught Languages*, (NCOLCTL), 4th annual conference, Arlington, VA.
Information: Scott McGinnis, National Foreign Language Center, 1029 Vermont Ave., NW, Suite 1000, Washington, DC 20005; voice 202-637-8881 ext. 28; fax 202-637-9244, Email [smcginnis@nflc.org].
- 25-28 April, *African Languages Teacher Association*, Madison. Information: Karin Gleisner, National African Language Resource Center, 4231 Humanities Bldg., 455 N.Park St., Madison, WI 53705; (608) 265-7905, Fax (608) 265-7904, Email [kbhartwig@facstaff.wisc.edu], Web [<http://african.lss.wisc.edu.nalrc>].
- 26-28 April, *Central States Conference on the Teaching of Foreign Languages*, Indianapolis. Information: Diane Ging, PO Box 21531, Columbus, OH 43221-0531; (614) 529-0109, Fax (614) 529-0321, Email [dging@iwaynet.net], Web [<http://centralstates.cc/>].
- May 17-19, *Second International Language Teacher Education Conference*, Minneapolis. Information: The Center for Advanced Research on Language Acquisition (CARLA), University of Minnesota, 619 Heller Hall, 271-19th Ave. So., Minneapolis, MN 55455; (612) 626-8600, Fax (612) 624-7514, Email [lteconf@tc.umn.edu], Web CARLA [<http://carla.acad.umn.edu>].
- 18-19 May, *Sixth Conference on Applied Linguistics: "Technology and Education in Second Language Acquisition and Teaching"*, Universidad de las Americas-Puebla, Cholula, Puebla, Mexico.
Information: Virginia LoCastro, Email [locastro@mail.udlap.mx] or Patricia McCoy, Email [mccoy@mail.udlap.mx], Web [<http://webserver.pue.udlap.mx/~lldlwww/congreso/lenguas.html>]
- 23-26 May, *International Association for Language Learning Technology*, Houston. Information: Claire Bartlett, Language Resource Center, Rice University, MS 37, Houston, TX 77251-1892; (713) 737-6157, Fax (713) 737-6168, Email [bartlett@rice.edu], Web [<http://iall.net>].
- 7-9 June, *ADFL Seminar East*, Middlebury College, Vermont. Information: David Goldberg, ADFL, Email [adfl@mla.org], Web [<http://www.adfl.org>].
- 21-23 June, *ADFL Seminar West*, University of Texas, Austin. Information: David Goldberg, ADFL, Email [adfl@mla.org], Web [<http://www.adfl.org>].
- 5-8 July, *American Association of Teachers of French*, Denver.
Information: Jayne Abrate, AATF, Mailcode 4510, Southern Illinois University, Carbondale, IL 62901-4510; (618) 453-5731, Fax (618) 453-5733, Email [abrate@siu.edu], Web [<http://aatf.utsa.edu/>].
- 4-8 July, *American Association of Teachers of Spanish & Portuguese*, San Francisco. Information: AATSP, Butler-Hancock Hall #210, University of Northern Colorado, Greeley, CO 80639; (970) 351-1090, Fax (970) 351-1095, Email [lsandste@bentley.unco.edu].

- 20-23 August, *13th European Symposium on Language for Special Purposes*, Vaasa, Finland. Information: LSP 2001, Dept. of Scandinavian Languages, P.O.Box 700, FI-65101 Vaasa, Finland, Email [lsp2001@uwasa.fi], Web [<http://www.uwasa.fi/lsp2001>].
- 13-15 September, *Second International Conference on 3rd Language Acquisition and Trilingualism*, Fryske Academy, Leeuwarden-Ljouwert, The Netherlands. Information: Web [http://www.spz.tu-darmstadt.de/projekt_13/]
- 14-15 November, *National Association of District Supervisors of Foreign Languages*, Washington, D.C. Information: Loretta Williams, Plano ISD, 150 Sunset, Plano TX 75075; (972) 519-8196, Fax (972) 519-8031, Email [lwillia@pisd.edu].
- 16-18 November, *American Council on the Teaching of Foreign Languages*, Washington, D.C. Information: ACTFL, 6 Executive Plaza, Yonkers, NY 10701-6801; (914) 963-8830, Fax (914) 963-1275, Email [actflhq@aol.com], Web [<http://www.actfl.org>].
- 16-18 November, *American Association of Teachers of German*, Washington, D.C. Information: AATG, 112 Haddontowne Court #104, Cherry Hill, NJ 08034; (856) 795-5553, Fax (856) 795-9398, Email [aatg@bellatlantic.net], Web [<http://www.aatg.org>].
- 16-18 November, *Chinese Language Teachers Association*, Washington, D.C. Information: CLTA, 1200 Academy Street, Kalamazoo, MI 49006; (616) 337-7001, Fax (616) 337-7251, Email [clta@kzoo.edu], Web [<http://www.clta.deall.ohio-state.edu>].
- 17 November, *American Association of Teachers of Arabic*, San Francisco. Information: John Eisele, Department of Modern Languages & Literature, College of William and Mary, Williamsburg, VA 23187-8795; (757) 221-3145, Email [jceise@facstaff.wm.edu].
- 17-20 November, *American Association of Teachers of Turkic Languages with Middle East Studies Association*, San Francisco. Information: AATT, 110 Jones Hall, Princeton University, Princeton, NJ 08544-1008; (609) 258-1435, Fax (609) 258-1242, Email [ehgilson@princeton.edu], Web [<http://www.princeton.edu/~ehgilson/aatt.html>].
- 27-30 December, *Modern Language Association of America*, New Orleans. Information: MLA, 10 Astor Place, New York, NY 10003-6981; Fax (212) 477-9863, Email [convention@mla.org].
- 27-30 December, *North American Association of Teachers of Czech*, New Orleans. Information: George Cummins III, German and Russian, Tulane University, New Orleans, LA 70118; (504) 899-7915, Fax (504) 865-5276, Email [gcummins@mailhost.tcs.tulane.edu].

27-30 December, *American Association of Teachers of Slavic & E. European Languages and American Council of Teachers of Russian*, New Orleans. Information: AATSEEL, 1933 N. Fountain Park Dr., Tucson, AZ 85715; Fax (520)885-2663, Email [aatseel@compuserve.com], Web [<http://clover.slavic.pitt.edu/~aatseel/>].

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- 3-6 January, *Linguistic Society of America*, San Francisco. Information: Margaret Reynolds, LSA, 1325 18th St, NW, Suite 211, Washington, DC 20036; (202) 835-1714, Fax (202) 835-1717, Email [lsa@lsadc.org], Web [www.lsadc.org].
- 21-23 March, *Central States Conference on the Teaching of Foreign Languages*, Kansas City, MO. Information: Diane Ging, PO Box 21531, Columbus, OH 43221-0531; (614) 529-0109, Fax (614) 529-0321, Email [dging@iwaynet.net], Web [<http://centralstates.cc/>].
- 6-9 April, *American Association of Applied Linguistics*, Salt Lake City. Information: AAAL, PO Box 21686, Eagan, MN 55121-0686; (612) 953-0805, Fax (612) 431-8404, Email [aaaloffice@aaal.org], Web [<http://www.aaal.org>].
- 9-13 April, *Teachers of English to Speakers of Other Languages*, Salt Lake City, Utah. Information: TESOL, 700 South Washington Street, Suite 200, Alexandria, Virginia 22314; (703) 836-0774, Fax (703) 836-7864, Email [conv@tesol.edu], Web [www.tesol.edu].
- 2-5 May, *Northeast Conference on the Teaching of Foreign Languages*, New York. Information: Northeast Conference, Dickinson College, PO Box 1773, Carlisle, PA 17013-2896; (717) 245-1977, Fax (717) 245-1976, Email [nectfl@dickinson.edu], Web [www.dickinson.edu/nectfl].
- 20-21 November, *National Association of District Supervisors of Foreign Languages*, Salt Lake City. Information: Loretta Williams, Plano ISD, 150 Sunset, Plano TX 75075; (972) 519-8196, Fax (972) 519-8031, Email [lwillia@pisd.edu].
- 22-24 November, *American Council on the Teaching of Foreign Languages*, Salt Lake City. Information: ACTFL, 6 Executive Plaza, Yonkers, NY 10701-6801; (914) 963-8830, Fax (914) 963-1275, Email [actflhq@aol.com], Web [<http://www.actfl.org>].
- 22-24 November, *American Association of Teachers of German*, Salt Lake City. Information: AATG, 112 Haddontowne Court #104, Cherry Hill, NJ 08034; (856) 795-5553, Fax (856) 795-9398, Email [aatg@bellatlantic.net], Web [<http://www.aatg.org>].
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- 23-26 November, *American Association of Teachers of Turkic Languages with Middle East Studies Association*, Washington. Information: AATT, 110 Jones Hall, Princeton University, Princeton, NJ 08544-1008; (609) 258-1435, Fax (609) 258-1242, Email [ehgilson@princeton.edu], Web [www.princeton.edu/~ehgilson/aatt.html].
- 27-30 December, *Modern Language Association of America*, location to be announced. Information: MLA, 10 Astor Place, New York, NY 10003-6981; Fax (212) 477-9863, Email [convention@mla.org].
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- 27-30 December, *American Association of Teachers of Slavic & E. European Languages and American Council of Teachers of Russian*, location to be announced. Information: AATSEEL, 1933 N. Fountain Park Dr., Tucson, AZ 85715; Fax (520)885-2663, Email [aatseel@compuserve.com], Web [<http://clover.slavic.pitt.edu/~aatseel/>].

Information for Contributors

Statement of Purpose

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

Submission of Manuscripts

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

Research Article

Divide your manuscript into the following sections:

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

Abstract

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

Introduction

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

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

Method

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

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

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

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

Results

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

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

Discussion

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

Conclusion

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

Appendices

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

Notes

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

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

Dulay, H., & Burt, M. (1974). Errors and strategies in child second language acquisition. *TESOL Quarterly*, 16 (1), 93-95.

Harris, D. P. (1969). *Testing English as a second language*. New York: McGraw-Hill.

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

Acknowledgments

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

Author

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

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

Review Article

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

Review

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

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Manuscripts should be typed on one side only on 8-1/2 x 11 inch paper, double-spaced, with ample margins. Subheads should be used at reasonable intervals. Typescripts

should typically run from 10 to 30 pages.

All material submitted for publication should conform to the style of the *Publication Manual of the American Psychological Association* (4th Ed., 1994) available from the American Psychological Association, P. O. Box 2710, Hyattsville, MD 20784.

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

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Notes

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Foreign Language Immersion Homestays

Maximizing the Accommodation of Cognitive Styles

Sonja Hokanson

Washington State University

This is an effort to examine cognitive style differences in a group of students in foreign language homestay situations. Homestays, combined with attendance at local language schools, are widely recognized for enhancing foreign language proficiency and cultural understanding, but they have not been examined extensively for cognitive style accommodation. This case study is a preliminary look at different cognitive styles associated with different activities preferred by students in a foreign homestay situation, in this case that of 29 American college students in Guatemala, the stability of their choices of activities, and increments in their language performance after one month. Academically very strong, the students exhibited a number of distinct preferences, most of which were related to their cognitive styles as evaluated by their performance on the Myers-Briggs Type Indicator, the Learning Styles Indicator, and several measures of preferences regarding social interaction. Results are examined in terms of initial proficiency versus proficiency at the end of the program, as measured by the National Spanish Exam and by an adapted version of the ACTFL Proficiency Guidelines. Some clear preferences emerged, associated with certain skill increments, but results are primarily indicative of the types of evaluative instruments that need to be prepared before definitive relationships can be determined.

Interested in the continuing debates on questions of individual differences which guide classroom methodology, I gathered data on students undergoing supported immersion in the Spanish language in Guatemala during January, 1996. The students, all from a small American college, went to live and study in Quetzaltenango. Observing their progress provided me an opportunity to focus on Spanish acquisition in a situation in which the primary variables could be controlled by each student, allowing easy fulfillment of a great variety of learning needs. The students represented a large range in Spanish ability, from those with only a semester's experience with Spanish to those already thoroughly fluent. Their heterogeneous abilities would require even more individualization of instruction than the usual classroom situation if it was to be effective. They thus provided a natural laboratory in which to test the validity of earlier style/acquisition results obtained in classroom situations (Ehrman, 1994; Hokanson, 1995).

In any SLA (Second Language Acquisition) class there are always students who are repelled by grammar work and there are always students who need grammar explanations before they can "get into" the new language. Language professionals are trained to have available an arsenal of language-related learning activities each day so they may abandon an ineffective activity quickly, replacing it with something more effective. The choice of which activity to begin next usually hinges on a change in the directness of the focus on grammar. Many instructors have wondered if it would improve their students' language acquisition if each student could easily find what was needed in the language at the moment it was needed, and in the amount needed.

When considering how to improve classroom situations it can be helpful to examine carefully natural foreign language acquisition settings. This article reports on students who were trying to learn Spanish where they had a great range of language-rich activities available to them, on an individual or group basis, nearly all of the time. These are the fundamental questions under consideration during this study: Would the production of the "gestalt" learners (students who do not find grammar helpful and prefer to experience whole language rather than to focus on grammar features) stagnate at the often-reported "novice-high" level of the ACTFL Proficiency Guidelines? Could "analytic" learners (students who need grammatical explanations before they will feel comfortable trying to experience whole language) find enough support to continue learning? How does freedom to choose important aspects of the learning situation affect the learner?

This is a case study of a homestay immersion experience of 29 American students in Guatemala. It should be viewed primarily as a qualitative study because evaluative instruments appropriate to assessing fully the above three questions have not been developed yet and do not permit quantification parametrically. Also, the trip participants were not randomly selected, thus invalidating use of those statistical procedures based upon random sampling. On the other hand, some quantitative data are presented because the evaluation of beginners' progress in handling analytic tasks could be accurately measured, and so could the learning style preferences of all of the students. What

will receive simply qualitative consideration are, (1) students' improvement in cultural understanding and in sociolinguistic understanding, (2) their improvement in communicative competency as targeted in the National Foreign Language Standards' categories of "Communication, Community, Connection, Culture, and Comparisons" (1996), and (3) the improvement of advanced students in handling analytic language tasks.

Literature Review

Resolution of such questions as the three above requires building upon the work of pedagogical researchers and thinkers who have produced a number of reliable studies and logical speculation indicating that people are not all the same insofar as their ideal learning environment. Howard Gardner's work with many different kinds of "intelligences" (1993) relates in theory to the findings of Raymond Moody at the University of Hawaii (1988) that learning style preferences are associated with the students' choice of professional programs. There appears to be a logical relationship between the findings that people have learning style preferences associated with their choices of profession and the findings that they have different types of "intelligences," which function differently when engaged in different tasks (Gardner, 1993), including the task of SLA. Madeline Ehrman at the Foreign Service Institute (1990) documented wide differences in cognitive preferences of career diplomats and their families as they studied a foreign language preparatory to a new assignment. She found differing results of their SLA efforts associated with their cognitive preferences as well, and has continued to document the relationship of personality preferences to differences in SLA (Ehrman, 1994, Ehrman & Oxford, 1995). S. Hokanson's study on the relationship between accommodation of cognitive style preferences in a classroom setting and subsequent increase in SLA provides additional encouragement for examining the effects of cognitive style accommodation in a study abroad setting (Hokanson, 1995).

Hokanson's dissertation study has not yet been published in any journal, but it is germane to this discussion. In 1993 Hokanson performed an SLA experiment involving 212 students. It resulted in increased SLA, and it documented clear cognitive style categories of student preferences. Students whose learning needs were matched with the type of instruction offered learned significantly more Spanish (1995, 164-179). The students in the control groups, classes which were following the normal syllabus, varied in what they learned. The variation was to some extent predictable according to the cognitive style of the student: the analytic type of students (those with a high need to know about grammatical features) learned more of the structural features of Spanish and the gestalt type of students (those preferring whole language usage and having a distaste for grammar) gained more oral skills, both productively and receptively.

Compared to those in the control classes, the students in the experimental classes not only learned more Spanish overall, there were a surprising number who learned much more than anticipated in the areas not deliberately

targeted as being similar to their style preference. In other words, the experimental population improved much more than the control population, often in those areas which were not their preferred activities. Some of the analytic students improved much more in whole language comprehension and output than expected; many gestalt students improved much more in grammar and sentence structure than anticipated. Cognitive style was better removed as a predictor of performance specialization when the students' cognitive style matched the teaching method than when students were taught by the regular, eclectic mix of methods.

In addition to investigations of cognitive style variables related to SLA, there have been numerous studies of the variables affecting language students abroad. Barbara Freed compiled a number of such studies (Freed, 1995), dealing with predicting and measuring SLA gains (Brecht, 1995, pp. 37-66; Lapkin, 1995, pp. 67-94), with sociolinguistic variables at work in several different study abroad contexts (Siegal, 1995, pp. 225-244; Regan, 1995, pp. 245-267), and, importantly for the current case study, the value of formal instruction during study abroad (Brecht, 1995, pp. 317-334). Sharon Wilkinson's insightful investigation, "Study Abroad from the Participants' Perspective: A Challenge to Common Beliefs" (Wilkinson, 1998, pp. 23-39), provides further focus on the importance of the learners' various perspectives on their ability to gain linguistically from foreign homestay experiences. The study was designed in consideration of the findings of the above investigators so as to avoid known pitfalls such as anomie (alienation experienced by those immersed in the target culture without access to their home culture), friendlessness, insufficient linguistic resources, purposelessness, scarcity of support, lack of access to varied activities, or major social blunders with their host families.

Method

Participants

As mentioned, the trip began with 29 college students in the study. However, due to illness and a subsequent trip home, one participant's results were incomplete. Another was a few days late in joining the group. Consequently, their data were excluded from the study, leaving 27 valid cases having the same number of days of study. Mean age of the participants was 19.9 years ($SD = .990$), such a small range that I did not consider age to be an important variable. Most of the students (22) had begun the study of Spanish in high school, four in middle school, and three in college. All students were native English speakers. They participated on the trip in partial fulfillment of course requirements, having been selected from a larger pool of students who applied for the semester abroad. After interviews and consideration of students' application packets, including essays, questionnaires, and letters of recommendation from professors and employers, selections had been made on the basis of students' motivation, altruism, scholastic ability, social skills, and special skills that might contribute to the trip, particularly to the parts of the trip which were

to follow the time they would spend in Guatemala, when they would live with campesino families in Honduras. All were good students with grade point averages between “B” (3.0) and “A” (4.0), with 20 of the students being members of an honor society requiring a minimum GPA of 3.75.

Materials Used For Testing

To evaluate individual cognitive style preferences:

Myers-Briggs Type Indicator The Myers-Briggs Type Indicator (MBTI) (Myers & Myers, 1987) measures personality on four continua: extrovert/ introvert; sensing/ intuition; thinking/ feeling; and judging/ perceiving. It has been used extensively by the US Foreign Service Institute to help predict which types of SLA activities would be most successful with a given student.

Learning-Style Inventory The Learning-Style Inventory (LSI) (Kolb, 1981) describes the way a person learns and how he or she deals with ideas and learning situations in everyday life. From the results of the measure, people receive four subscores in the areas of abstract conceptualization, active experimentation, concrete experience, and reflective observation. These four subscores are then combined to classify the person’s learning style, some of which classifications involve language skills. Type 2 learners, “assimilators,” and type 3, “convergers,” were expected to be associated with more SLA.

Attitude Assessment Form I created an Attitude Assessment Form which measures participants’ attitudes toward the Spanish language, and toward study situations. It is a questionnaire for students to answer by circling numbers on Likert scales with “Agree-Disagree,” “Like-Dislike” extremes.

Background Information Form The Background Information Form assessed participants’ previous experience with the Spanish language. It is formed by utilizing parts of the student questionnaire of the National Spanish Examination of the AATSP.

Sensation-Seeking Scale The Sensation-Seeking Scale (SSS) (Zuckerman, 1979) measures one’s need for a high level of stimulation. Sensation-seeking involves actively searching out thrills, adventures, and new experiences that many people would find very stressful.

Social Avoidance and Distress Scale The Social Avoidance and Distress Scale (SADS) (Watson & Friend, 1969) measures the extent to which people are uncomfortable, fearful, and anxious in social situations and how hard they try to avoid social encounters as a result of their discomfort.

To evaluate ability in Spanish at the beginning and again at the end of the Guatemala experience:

Class records of Spanish performance (in USA) I had personally observed the performance of the majority of the students in their college Spanish classes and had class records for everybody, including those of the few students I had not personally observed in their classes. Their American professors' observations of previous performance and level of ability at the start of the trip concurred with my own.

Class records of Spanish performance (in Guatemala) The students' Guatemalan professors kept clear records of student activities and levels of performance during their study, which they made available to me. I had them coded and the names removed to prevent my being biased in their evaluation.

1989 AATSP National Exam- Level II The American Association of Teachers of Spanish and Portuguese (AATSP) annual National Exam measures Spanish reading and listening comprehension skills at various levels. Level II was chosen so that it would not be too difficult for the beginning students, but would still provide a challenge for the able students. It is a discrete-point grammar test, not designed as a measure of communicative ability.

ACTFL Proficiency Guidelines were the standards by which all global assessments of production were judged, both written and oral. My doctorate is in Spanish linguistics with a concentration in psycholinguistics which equips me to make this sort of evaluation.

Weekly exams created and administered by Guatemalan university professors, composed of approximately equal parts discrete-point analytical grammar questions and context-rich, short essay questions or open-ended questions. I reevaluated these exams in terms of the ACTFL Proficiency Guidelines in order to create a consistent scale, 1 - 7, from ACTFL Novice-Low being "1" to entry level of Advanced being "7." Subtracting entry from exit scores, I then changed the increment in improvement ratings to numbers. The numbers represent months of Spanish study in the program which I supervise (a communicatively-oriented program at a large, state university). They are the average number of months that it usually takes students to progress from one ACTFL benchmark to the next:

Table 1. Time Usually Required to Achieve Early Levels of ACTFL Ratings, Both Oral and Written

<i>ACTFL Levels</i>	<i>Within-Level Position</i>	<i>Number of Months Between Levels</i>
<i>Novice</i>	<i>low-called "1" for charting purposes</i>	
		<i>3 months</i>
	<i>mid - "2"</i>	
		<i>3 months</i>
	<i>high - "3"</i>	
		<i>4 months</i>
<i>Intermediate</i>	<i>low - "4"</i>	
		<i>4 months</i>
	<i>mid - "5"</i>	
		<i>6 months</i>
	<i>high - "6"</i>	
		<i>8 months</i>
<i>Advanced</i>	<i>"7"</i>	

I acknowledge the unconventionality of using months as a unit of progress. However, I needed a heuristic for indicating equivalencies of gain. Because the ACTFL Scale itself has increments more like the Richter Scale than like a ruler, i.e., as a student advances, it is a great deal more difficult and time-consuming to pass from one level to the next, it penalizes incremental scores of advanced students who will therefore not achieve their next scale level as quickly as novice students will achieve their next level. I also isolated the most communicative parts of each written exam (short essay answers and answers to open-ended questions) and evaluated those parts alone on the ACTFL scale.

Measurement of SLA continues to be a problem, especially in such linguistically rich environments as commonly found during study abroad. Previous use of the ACTFL scale had convinced me that one common assumption

about its usage was wrong. It has popularly been assumed by teachers and professors that language increments of the same distance on the ACTFL scale should take about the same amount of time and effort to accomplish. That assumption is receiving closer examination in Washington state as committees strive to translate the goals of the National Foreign Language Standards into practical benchmarks and useful curriculum. I am on several of these committees and have observed that discussion swirls most heatedly around how long it "should" take students to achieve a given benchmark. Yet the time line aspect of Standards is absolutely necessary for setting realistic expectations at the local level and for curriculum planning. Breaking the benchmarks into increments of university-months is being considered by members of the Standards committees here.

Months of improvement may become the unit of measure of oral as well as of written gains, this test study providing evidence of the utility of such units. Many oral gains in abstract reasoning in Spanish would have been impossible to measure on any currently available objective tests so I adapted the ACTFL Oral Proficiency Interview (OPI) Scale criteria, because they speak to the appropriate issues, though they are not statistically tidy in the sense that multiple choice tests are. By its nature the scale is subjective, dependent upon an evaluator's impressions, but the specificity of OPI benchmarks gives objectivity to observations. In addition, to avoid detracting from optimum SLA environment, yet to document ongoing acquisition, I frequently made unobtrusive, informal observations, classifiable in OPI ways, though the students did not know at the time that any sort of special evaluation was occurring. They did know I was observing them during the entire trip regarding their language learning, and that I was studying what aspects of their experience seemed to help them learn. It should be noted that their privacy has been protected and that they were treated in accordance with "Ethical Principles of Psychologists and Code of Conduct (American Psychological Association, 1992)."

Here is an example of an OPI-type of episode: four of the more fluent students and three of the beginning students were with me in a large open-air market. I heard the beginners naming the items they recognized in the stalls nearby, bargaining for purchase, and exchanging social pleasantries with the proprietors. All of those skills when written can be measured objectively on an instrument like the AATSP test and all three of those students showed increments estimated at two college years of study or more when they took that test. However, none of the advanced students showed large gains on the test; their scores were quite high when they took it the first time. Considering their high initial scores, I noted that they were NOT naming things. They were asking one of the proprietors (in excellent Spanish, grammatically) to tell them about his life as an entrepreneur. He told them how he had obtained permission to sell goods and use the stall area, where he got the produce he was selling, what profit he made, and what he did with the money. The students went on to ask what his plans were, what he saw as the future of agriculture in the Guatemalan economy under the new president, what he would change if he could, and what

he recommended for the role of the USA, if any. Besides using precise words and phrases, the students were using appropriate gestures, pragmatics, and topic selection. They showed sensitivity to his mention of rivalry among several Mayan tribes and between his group, composed primarily of Mayans, and the local, almost exclusively Hispanic, government. They pursued his distinction between the interests of Guatemala City, which overwhelmed the election, and the agricultural interests of the countryside. The advanced students had the vocabulary, information, and general panache to follow and advance the conversation energetically, with few pauses and circumlocutions. I doubt that any standardized test, such as the Advanced Placement Spanish Exam, the AATSP Exam, or the Brigham Young University Spanish Computer-Assisted Placement Exam, could have measured the increments in processing of abstract ideas that this incident typifies. In this situation all four of the advanced students would have scored somewhere in "Advanced", at some moments "Advanced-high" on an ACTFL OPI, yet only three weeks earlier they would have scored "Intermediate-mid" at best. They had been in my third year Spanish classes at that time, and I knew their work well. It is noteworthy that all seven of these students had high Intuition scores on the MBTI. SLA field assessment is in its infancy, but necessary if we are to support students' focus on communicating rather than on passing exams.

Procedure

Preparations and Trip

Participants completed the MBTI, LSI, Attitude Assessment Form, Background Information Form, SSS, and SADS during one hour of the fall, 1995 cultural introduction course, which was required of all students participating in the Central America Study Tour. The Tour is a program in which students learn about Central American culture firsthand as they live and work alongside people who typify the groups about whom they are learning. The students focused on the sociology, history, and politics of Guatemala before embarking, in part to ensure they did not offend their hosts by inadvertently behaving in insensitive ways. The students were mostly juniors and seniors majoring in sociology, history, international relations, or Spanish, plus six sophomores who eventually declared double majors in sociology and Spanish.

After arriving in Guatemala with the students on January 3, 1996, I tested them for their initial level of Spanish, using the AATSP 1989 National Spanish Exam, Level II, and my own observations of their interactions with native speakers in Spanish, using the ACTFL Guidelines as benchmarks. Students then went to the Escuela de Español Xelajú de Quetzaltenango, met the professors, and were tested by them, using discrete-point, objective exams created by the professors. Each student was assigned to a professor (all of whom were trained language teachers, most having taught at the university level in Guatemala), and all of whom were native speakers of Spanish.

In light of his or her student's performance on the test, the professor selected an appropriate textbook (from various standard American Spanish texts, all of which had a largely grammar-translation focus) for each student's level of Spanish, then gave their student about two hours of Spanish instruction.

The students next went to their Guatemalan host families, to have a big midday meal and to rest. This began a similar pattern which was repeated for all their weekdays at the language school: study in the morning for five hours, go to their host home for dinner, rest a bit, choose from a smorgasbord of activities in Spanish for the rest of the day.

The Escuela Xelajú administration and professors were very cooperative in arranging whatever experiences we felt would benefit each student. We decided that all students would experience Escuela Xelajú's normal five hours per day, five days per week instruction, each student being taught alone by one of the Escuela's professors. At the end of our stay, each student had experienced five hours per day for four weeks, or a total of 100 hours of individual instruction. (For comparison, note that Washington State University provides 4 hours per week for 14 weeks of classroom contact with an instructor, or 56 hours of instruction per semester.)

Activities

Beyond the basic, individual instruction, the students had control of the rest of their learning environment. The default situation, if the student did nothing special, was to sit across from the professor at a small table while their written work was corrected, grammatically analyzed, and used as the basis for conversation in Spanish with the professor. Students were free to introduce topics of their choice; the default in subject matter was to follow the topics and grammatical sequences provided in the texts used. Students knew they could go to a coffee shop with their professor, or take the bus to the market, find the Amish bakery, stroll through the zoo, etc. The structure of the situation was under their control, including supplementary Spanish materials of great variety, such as magazines, newspapers, videos, TV, and radio.

Their five-hour morning sessions with their instructors were followed by midday dinner with their families and afternoons which provided choices of lectures, visits to what the group felt to be socially significant places like the American Embassy, the Guatemalan National Department of Education, orphanages, a home for abused women and children, the University of Guatemala, or villages. Students could use their free time to pursue interests such as chatting with the shoe shine boys in the plaza, watching videos in Spanish, or taking trips to markets and old churches. Evenings were usually spent with the host families, speaking Spanish; in one's room writing journal entries and reading; or else back at the language school, tutoring Guatemalan children and adults in a literacy program. On the day of Guatemalan national elections the students observed at various polling places to help local teams of rival political parties insure fair election procedures. Two or three nights per week students attended lectures in Spanish judged by their professors to be politically

significant, with English translations usually provided. Occasionally they went to discoteques, movies, and village fiestas, often times after spending an hour or two tutoring in the literacy program. Almost all of these activities were held entirely in Spanish, with little translation available, except in the case of the political lectures, as noted above. Weekends usually saw students going on trips to volcanoes, hot springs, or villages. Church services in Spanish were usually attended every Sunday by all of the students.

It was immediately noteworthy that the same ten students took their instructors downtown to coffee shops nearly every day while the other 19 students were nearly always the ones to remain at the school poring over grammar tasks. This may have to do with their beliefs about how they would learn best, rather than what they would really have preferred to do. L. Miller and R. Ginsberg have documented a number of instances of students' beliefs about how they learn having a strong effect on what activities they chose to do (Miller, 1995, pp. 293-315). The accuracy of their beliefs needs to be examined, but the probability that their beliefs affected what they chose to do is noted as a factor in the current study.

Hypotheses

The introductory three questions can be phrased as a general statement: I hoped to learn whether different types of learners, if encouraged to follow their various inclinations in language study, would in fact choose different activities and/or learn different skills. Evaluation of the statement is logically pursued through four hypotheses:

One: I expected that the more gestalt type students, particularly those higher in Extraversion (as defined by Myers-Briggs), with highly positive attitudes towards interaction with native speakers of Spanish, and low scores on the SADS (Social Avoidance and Distress Scale), would gravitate towards social situations where they could use Spanish orally. I expected analytic type students, especially those higher in Introversion (again, as defined by Myers-Briggs), low on the SS (Sensation-Seeking), and preferring to understand grammatical concepts before using them (as revealed on my attitude questionnaire), would encounter the quiet study time they might find more inviting. According to Myers-Briggs, Extraversion is associated with people who "need to experience the world in order to understand it and thus tend to like action and variety... may prefer to communicate by talking rather than by writing (Myers & Myers, 1992, p. 2)." Introversion is associated with people who "like to understand the world before experiencing it, and so need time to reflect before acting... (They) may prefer communication to be in writing (1992, p. 2)." Some preference characteristics which were measured were expected to be associated with somewhat different skills. The Extraverted students would probably develop more oral skills, both receptive and productive, and absorb more cultural cues. The Introverted were expected to develop more reading and writing abilities.

At Xelajú, speaking, listening, reading, and writing skills had to be measured via different tests, created by the Guatemalan professors to coordinate with each of the many texts they used, but, as mentioned above, I reevaluated their written tests and converted their performance to the ACTFL Proficiency Guidelines' descriptive framework from "novice" to "advanced," expressed in terms of months. The Guatemalan professors gave students oral performance ratings, based on their interviews with the students. A formal interview differentially penalizes shy students, and does not provide as conversationally valid a situation as a genuine interaction with a native speaker who does not also speak English and who has some communicative goal to actually accomplish. To get a fuller view of student abilities, I made notes (again in terms of ACTFL Guidelines) when I observed increases in cultural sensitivity in student-native speaker interactions outside the instructional situation. This is summarized in the second hypothesis.

Two: The overall assessment was expected to yield a total improvement that did NOT vary according to the "analytic...vs...gestalt" continuum of cognitive preferences. The reason that I expected a lack of association of variance in performance with variance in cognitive preferences was because students could satisfy their cognitive preferences at will. They had an abundance of ways to move from an activity gone stale to something more interesting to them, thus acquiring some form of additional language skill almost all of the time, and so almost always increasing their total language ability.

Three: Those students higher in Intuition (which can be associated with any score on the "analytic...vs...gestalt" continuum of cognitive preferences [Hokanson, 1995]) would learn more Spanish overall, regardless of other factors. In other words, the characteristic defined by the MBTI as "Intuition" was predicted to be positively associated with overall language improvement, regardless of other traits, which is consistent with the findings of Madeline Ehrman (1995). Intuition "shows you the meanings, relationships, and possibilities that go beyond the information from your senses. Intuitive types look at the big picture and try to grasp the overall patterns... (Myers & Myers, 1992, p. 2)."

Four: Those students who were already highly fluent and literate in Spanish would be learning culturally and socially relevant skills (difficult to measure with objective tests and therefore possibly excluding their results from the database of purely Spanish improvement, but of interest anecdotally to guide future data collection).

There were seven males and twenty-two females (twenty, when the two incomplete cases are removed from the sample). Gender differences in performance versus cognitive style preferences were not expected, but the data was gathered anyway, just in case it might prove associated with a trend.

Results

Hypothesis one: The first prediction, that different types of learners would gravitate towards different activities, was borne out by the students'

choices. All ten students who spent many or most of their mornings downtown with their instructors, exploring markets, museums, cafés, and so forth, had tested as Extraverts on the MBTI, a perfect correlation. Because all of them were also classed as “gestalt learners” rather than “analytic learners” due to their score clusters on the other psychometrics, I will refer to this cohort as “Extraverts,” synonymous with “gestalt learners” and “downtown group,” and their study-at-school peers as “Introverts,” synonymous with “learners” and “school group,” from now on. This does not mean that every Extravert would necessarily be a gestalt learner in other populations.

Four of the downtown group were males (of the seven males who went on the trip). So, in this small sample, there does seem to be a tendency of the males to prefer to go downtown (four out of ten males, or 40%, versus six out of nineteen females, or 32%, but the sample does not allow for such a small difference to achieve statistical significance).

Hypothesis two: Three of the five students judged highest in overall achievement gains in Spanish were among the downtown group and two of those were males. In this study, achievement increment relative to the preference for downtown activities appears related to extraversion (three of the ten extraverted students were among the five highest achievers, 30%, while only two of the sixteen introverted students were, 13%), and maybe to gender (two out of the seven males, 29%, three out of the nineteen females, 16%), but the number of students is too small for statistical significance to have been achieved in either case. Relative to choosing to go downtown, it is noteworthy that student concern for safety factors was not an issue, because going with their Guatemalan professors was without doubt the safest way to sightsee. Actually, all students reported feeling very safe in Quetzaltenango, at least in the part of the city where we were (“downtown” was a plaza about a mile from the school), and we always travelled in pairs or groups.

Of the 19 who chose to study exclusively, or almost exclusively, at the school, all tested as Introverts. An interesting case is one student whose Introvert/Extravert scores were equal, and was therefore classed according to explicit MBTI directions as Introverted, who stayed at the school to study. She was a very high achieving young woman who had a history of focus on academic activities. She told me that she would have preferred to go downtown but thought her academic ability in Spanish would suffer. This calls to mind the “Folklinguistic Theories of Language Learning” by Miller and Ginsberg: it may have influenced her choice more that this young woman, and possibly others, thought that classroom study of grammar was the way to learn the most language, rather than that they really preferred such study instead of going downtown (Miller & Ginsberg, 1995). Figure 2 below shows the improvement in oral performance achieved by the group that habitually went downtown, composed exclusively of the Extraverts.

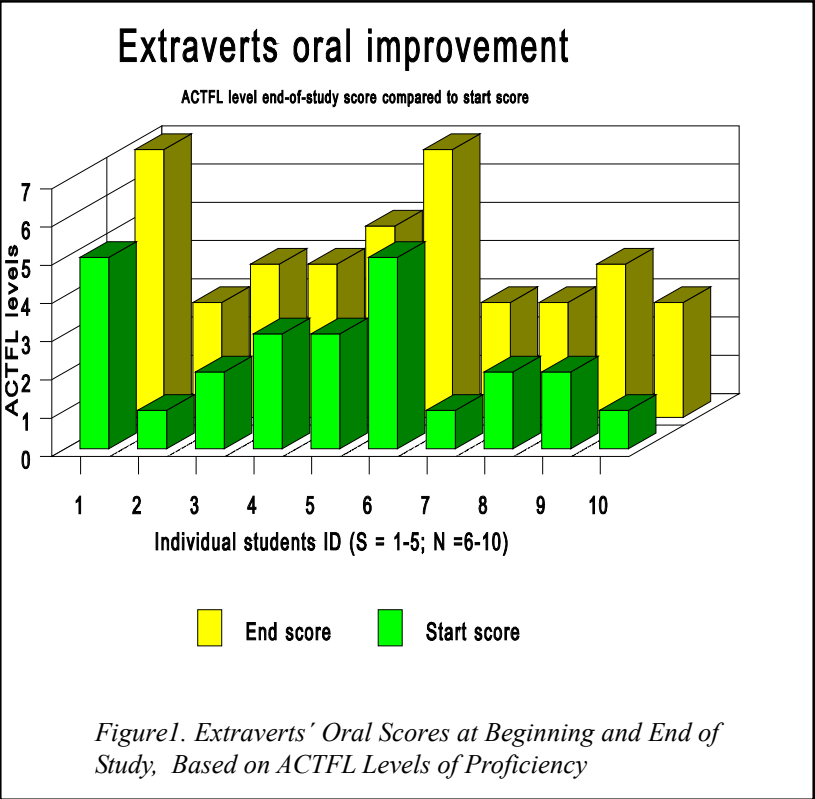
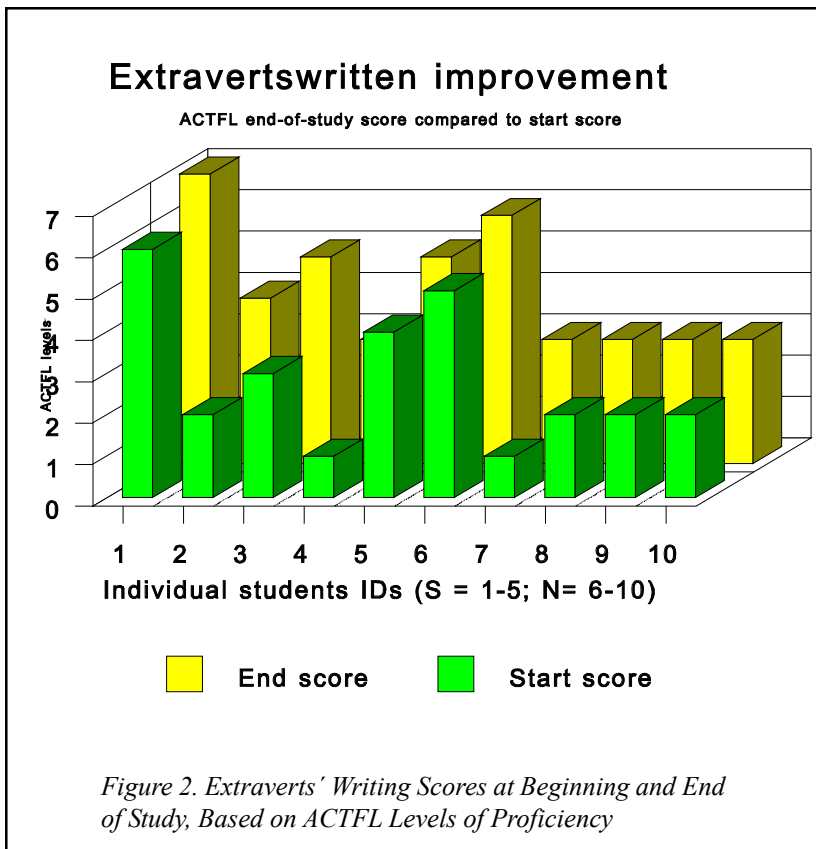


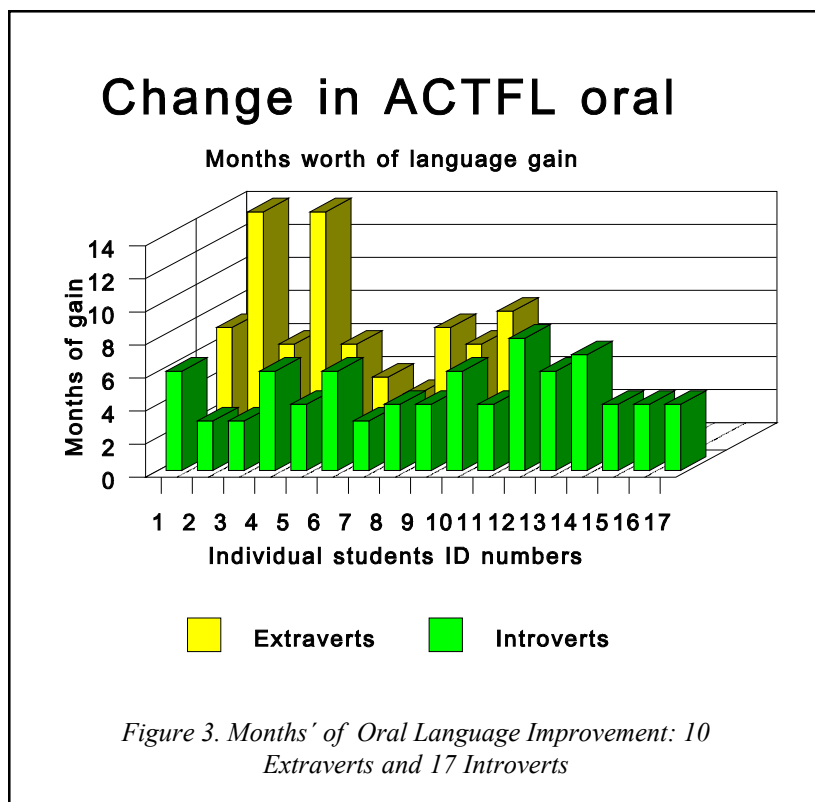
Figure 1 shows the oral improvement of each of the ten students who studied downtown.

Hypothesis three: Note that students numbered 6 through 10 are also “Intuitives,” those expected to be overall better language learners, which is apparently not the case here. They have achieved improvement profiles very much like those of the “Sensing” Extraverts, students numbered 1 through 5.

Figure 2, below, illustrates the written improvement of each of the ten students who studied downtown.



In Figure 2 again we note that students 6 through 10 (“Intuitives” as well as “Extraverts”) do not appear to have achieved more than the “Sensing” Extraverts. Also, the second part of the first hypothesis, that those skills most practiced would increase the most, appears not to be supported, see Figure 4 below. There is an “apples and oranges” problem here, in that increments of reading/writing scores, for example, cannot directly be compared with increments in oral/aural usage skill scores. My global scoring of oral increments agreed with the perception of performance increments that the students’ professors reported, though qualitatively expressed, not quantitatively, which was part of the inspiration for turning student improvement into a common denominator of months.



In Figure 3 the oral gain profiles, expressed in months of university study usually necessary for such gains on the ACTFL scale, do not appear to be very different for the Extraverts than for the Introverts, with the exception of the second and fourth Extraverts. Having taught those two women for a year previous to the trip, I can attest to their truly remarkable abilities in SLA, under almost any circumstances. However, another viewpoint is that extraverted, gifted language learners indeed flourish in such a supportive language immersion environment, especially if they are outstanding students anyway, accustomed to studying as well as interacting. It was no surprise to see that their written gain scores were also among the highest, leaving them with the highest totals overall.

Students' written improvement also does not appear to show difference according to Extraversion/Introversion, see Figure 4 below.

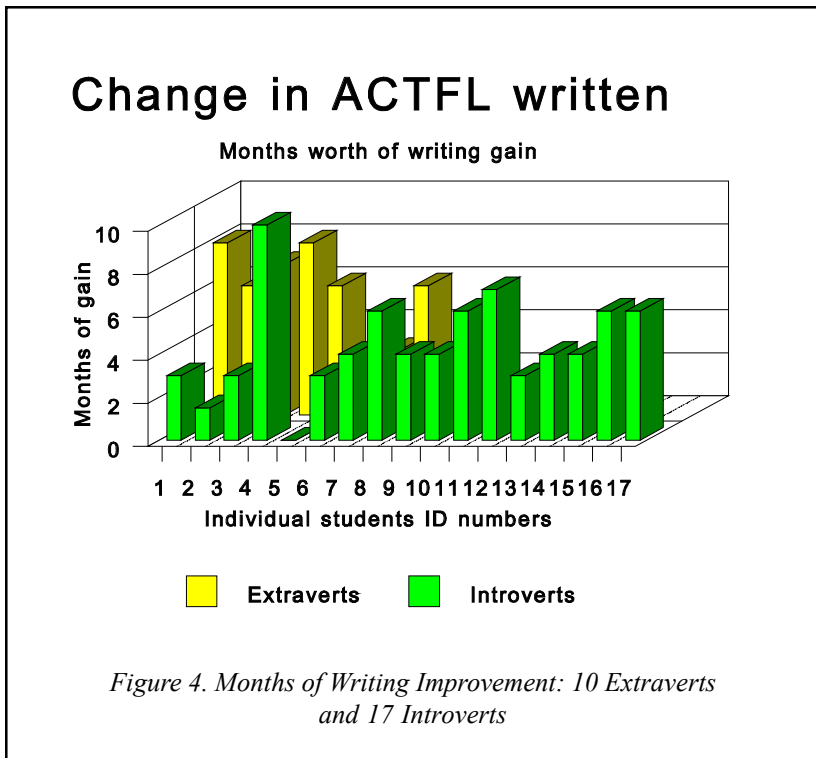


Figure 4 reveals the high scores of the two high oral gain women as well as the remarkable improvement in writing ability of the Introverted woman who had some fluency in French and only had begun Spanish during the summer previous to the trip. Otherwise the profiles of the Extraverts resembles that of the Introverts.

I produced figure 5 below to see if a total SLA score revealed any trends. Figure 5 adds oral scores to written scores via use of my “months” construct, typical number of months necessary for achievement. Figure 5 does not reveal any new pattern; the same three high achieving young women are the only remarkable features, whether we examine Extraverts versus Introverts or Intuitives versus Sensors.

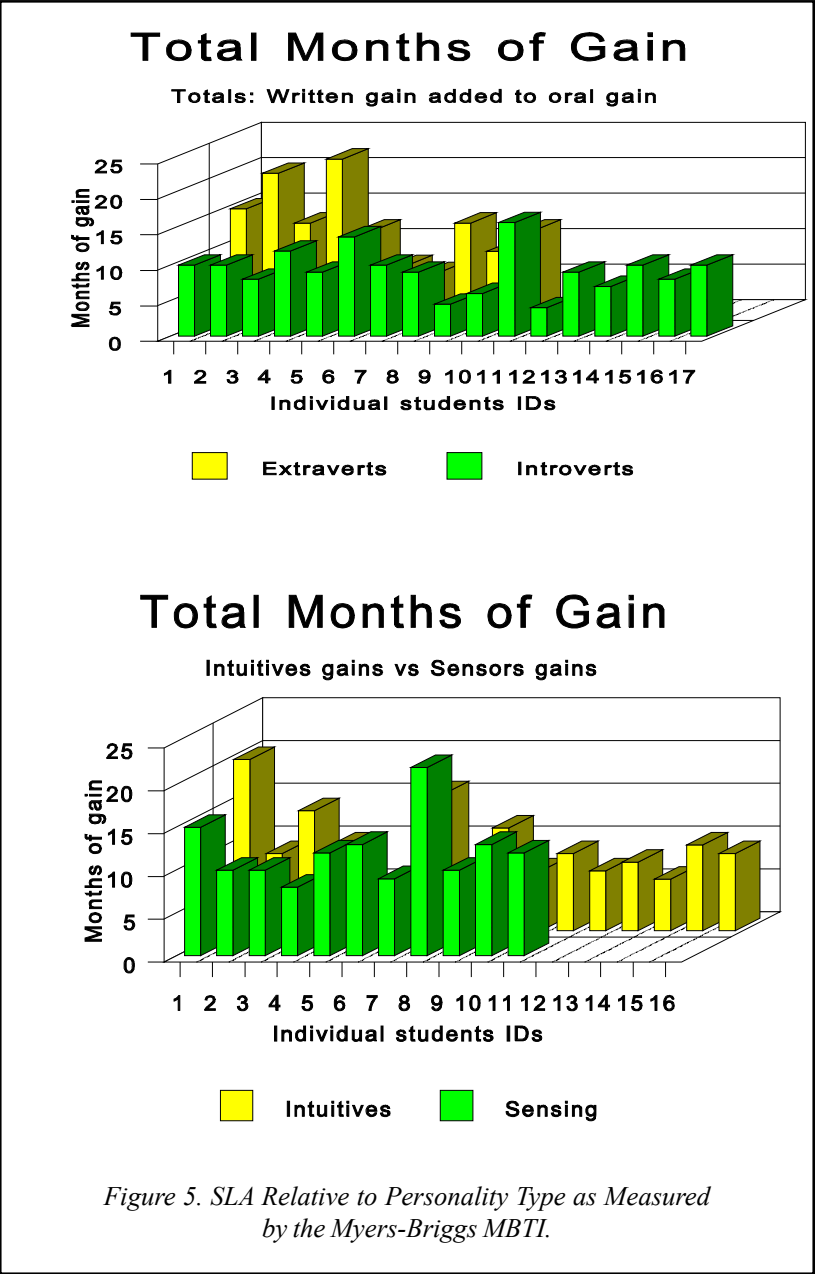


Figure 5 adds weight to hypothesis two, that meeting students' cognitive style preferences by arranging an environment in which they can easily find the language learning activities they prefer (of course, coupled with high motivation to pay attention to that environment), leads to SLA that does NOT vary according to style preference. The lack of difference contradicts the common assumption that those skills most practiced will improve the most. The gestalts have not acquired overwhelmingly more oral capability than the analytics, nor have they shown well-developed oral skills at the expense of their writing ability in Spanish.

Some mention of the National Spanish Exam is in order. I purchased and administered it thinking that it would provide a reliable measure of grammar improvement, which it probably would have if it had had a great enough range to accommodate our group. Half of the group was already so advanced that they scored within ten points of perfect at the beginning of the study. Some of the questions that they had guessed correctly on the first taking of the test they guessed incorrectly on the second taking, actually lowering their scores. I considered six of the frequently missed questions to be ambiguous, dependent upon a context not supplied.

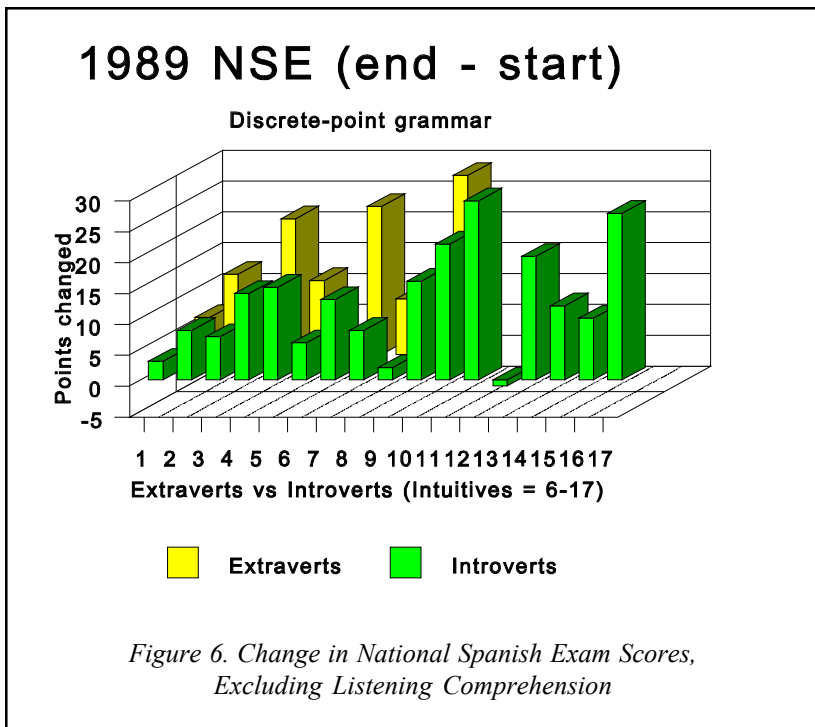


Figure 6 shows the increments of change the students made upon retaking the National Spanish Exam. The high-scoring students who actually scored a few points lower than on the initial administration, wrote remarkably

improved prose and scored much higher on the tests administered at Escuela Xelajú, and on their journals, at the end of our stay than at the beginning. This ceiling effect of the NSE experienced by the advanced students (only) obscures their very real gains. In fact, they can be identified above by looking for gains of only 5 points or less!

Hypothesis four: The fourth prediction (fluent, advanced students would increase most remarkably in their social and cultural skills rather than in their strictly linguistic skills) was also supported, but as mentioned above, anecdotally, not statistically. Those seven students already very advanced and fluent when they arrived (scoring 4 or better on the ACTFL scale) did in fact demonstrate great increases in appropriate social skills and cultural sensitivity. Although I could find no objectively quantifiable measure of such increases available to use on the trip, perhaps an example will clarify what is meant by an increase in sensitivity.

In the first few days after our arrival, a woman student very fluent in Spanish, call her "Linda" here, reported not being able to make herself eat the black beans, tortillas, and eggs served for breakfast in her host family's home. Such a menu was just too unappetizing for her, though served in a very clean, pleasant environment. Three weeks later Linda was among a group visiting families in "La Pedrera," a very poor village with dirt floors in the homes and no running water. We played soccer with the children, gave them toys, and brought the adults some useful items as gifts to thank them for welcoming us and for telling us about their lives. Very few people, particularly outsiders, listen to such people, and it was clear that they were grateful for our attention. We had worried about being an intrusion so we felt pleased about their acceptance of us, yet concerned about the grimy conditions and grinding poverty in which they lived. It would be impossible to overdraw the unappetizing conditions, extreme in every way. For example, a sow rooted noisily through husks at the doorway of a one-room house, her piglets squealing and running around the "kitchen" area of the home.

The women had been preparing sweetened squash in pots over crackling wood fires, though some also had pots on small gas stoves inside. When they surprised us by setting out their worn dishes and utensils to serve us (though it was not a mealtime) it was Linda who led a hurried conference in English to the effect that we should accept their hospitality because the joy of giving is part of preserving one's dignity in a relationship. It was Linda who said, "Yeah, there're probably things we'll catch from plates washed in amoeba-water, but we can just take medicine as soon as we get back to town. We should eat some squash and say it's delicious." While not pleased at the probability of my students getting sick, I was impressed that such a statement from Linda represented a major change in social perception and cultural awareness. The two episodes represent a sort of "before" and "after," an increase in cultural sensitivity triggered by the strides she had made in using her Spanish to communicate with native speakers.

Such observations give support to the couching of National Standards of Foreign Language achievement in terms of the five “Cs” — Community, Communication, Connections, Culture, and Comparison. In this study-abroad situation those functional categories made much more practical sense than simply measuring student increments in the four skill modes.

The third prediction (that those higher in Intuition on the Myers-Briggs would learn more Spanish) was supported by the NSE scores (Figure 7 above), but only marginally. The Intuition score on the MBTI was, as predicted, occasionally associated with very high overall language achievement: four out of the five students judged most improved in Spanish overall (see global assessment scoring technique discussed above) also had high Intuition scores, including the woman judged to be the highest achiever. Nevertheless, general patterns of achievement during this study do not appear markedly different for the Intuitives than for the Sensors, which is in contrast to Ehrman’s findings. I speculate that her adult students, diplomats studying at FSI in preparation for being posted to another country, were as motivated and as linguistically astute as our highest achieving students. Perhaps at that level of performance being an Intuitive is an added advantage in SLA.

Though three of the four predictions were largely borne out, there were surprises as to which specific skills were acquired. When measured against the 17 students who stayed in school in the mornings (19 minus the two whose scores could not be used), the 10 downtown students had gained as much as the overall average for the group in grammar understanding (as measured by the AATSP test as well as the ACTFL levels), though their written production was not as smooth (as judged globally from their journals). The distinction is being made here between understanding of structural regularities, “correctness” in choices on a discrete-point grammar test, and the ability to produce graceful prose paragraphs. The downtown group averaged high on correctness but not on gracefulness. Nevertheless, by academic standards, their skills increased in a balanced way; the extremes of oral productive capability at the sacrifice of written skills that had been feared were not realized. There was also fairly balanced overall improvement in the Spanish of the school group, with, as mentioned, slightly more written skill fluency improvement than spoken compared to the downtown group’s improvement, but individuals varied greatly, not really producing a pronounced trend. Those students who stayed in the school in the mornings had reading and writing skill gains that were a bit greater than their speaking skill gains, but not their listening skills, relative to the ACTFL Proficiency Guidelines’ descriptive pyramid of skills. The school group of students were not judged to be quite as fluent in oral production, but their receptive vocabulary was just as large as the average for the downtown group. As noted above, their written prose production was somewhat more prolific and expressive than that of the downtown group.

Discussion

The results are much as predicted: allowed to make major choices in their language-learning situations, most students showed great progress in all the language skill areas. The trip was set up in such a way as to avoid known pitfalls of study abroad, including anomie, friendlessness, purposelessness, scarcity of support, or major social blunders with their host families. Without such major negative factors, the positive factors, particularly readily available, linguistically rich choices, played important roles in all of the students' SLA experiences.

Affect is an important factor, as Krashen has discussed (1982), and in this experience affect undoubtedly played a very large role. All students expressed highly positive feelings about the experience; all felt that they had worked very hard but that it was generally enjoyable work. They often expressed a fondness for one or more of their professors, and usually for the people in their home experiences as well. They had changed professors at the end of every week, partly to become accustomed to a variety of native speaker accents and partly to hear different explanations and examples of the target grammatical features and cultural observations. Even with such frequent changing, with few exceptions, they reported feeling "close" to their professors.

As stated above, the global assessment score does not seem type-related, but there does seem to be a clear sequencing trend in students' choice of activities. The high overall achievement patterns of the "gestalt" students (those who prefer to experience whole language before trying to understand the functions of specific structures) tend to corroborate Hokanson's earlier experimental findings. She found that gestalt learners acquire an increment in speaking ability before they appear to have conscious access to an increment of the grammar that underpins the language they are using (Hokanson, 1995). Analytic learners on the other hand appear to need to understand grammar before trying to use it, particularly in an oral use situation. When they feel they have understood the grammar issues, they are more willing to risk speaking. These findings are consistent with the performance of the Guatemalan group. Analytics and gestalts choose different activities but if their linguistic environment is rich enough, both groups develop balanced linguistic dexterities.

The slight trend for advanced students who showed the highest gain scores to be "Ns" ("Intuitives" according to MBTI) instead of "Ss" ("Sensing"), could be related to their high gains in cultural sensitivity. It is logical that Ns' tendency to perceive patterns would help in a complementary way for seeing both cultural patterns and linguistic patterns. I had expected an even more robust trend in that direction.

Conclusion

It is sound pedagogy to give students a choice of activities that vary in their focus on the structural features of the foreign language. Student choice of activities is predictable and forms a stable construct associated with faster

increments in SLA. There appears to be a chaining effect, whereby one type of activity is followed by a corroborating real-life usage of the targeted feature, and vice versa. An activity in which whole language was the focus, say a visit to an orphanage, was followed by spontaneous student questions relating to grammar and resultant meanings. Even those kinds of questions differed. Analytic students characteristically and predictably asked grammar questions about linguistic relationships, while gestalt students typically asked about the meaning difference that would be made by certain changes in the words that had been used. It would seem important to videotape such occasions and quantify which types of learners asked which types of questions, and then to schedule follow-up quantification for noting usage patterns.

More work on evaluative instruments needs to be done before this type of investigation can become effectively represented quantitatively. The AATSP test only assesses reading and listening, and the listening comprehension section has many distracting practical problems. The initial and final ACTFL-based evaluations of Spanish ability must measure the full range exhibited in the group being tested, and the testing needs to assess not only levels of reading, writing, listening, and speaking, but also of abstract thinking expressed in Spanish and of cultural/ social awareness. In particular, some non-intrusive way of testing is especially needed, something with finer, preferably rate-based incremental units.

Applications

The applications of this pilot research are varied and far-reaching, from textbooks and classroom management to SLA theory and the testing of spreading-activation models of cognition. A sample question concerning spreading activation is: are the modular parts of SLA the same language constructs for each language learner, or do they vary from learner to learner? The concepts explained, especially those pertaining to the differing needs of analytic and gestalt learners, are pragmatically useful for classroom teachers, and important to practical analysis of the SLA process as a whole.

This study strongly suggests that it is always helpful for students to have a choice in activities, so that each may choose an appropriate activity. I speculate that the mere act of choosing may involve an act of commitment to the enterprise that is lacking when instructor-directed activities dominate. If students cannot be separated into groups whose preferences are similar, educators should strive to provide grammar lesson choices and whole language usage choices which meet the needs of these two common types of learners. Educators would be well advised to offer certain choices in learning activities within different categories, giving students the freedom to choose, at least some of the time, according to what the students themselves think will best help them progress. This does imply informing students of the validity of some activities which appear to them to be only play, so that they not be inhibited from choosing an attractive activity. Diligent students distrust whole-language situations in terms of their SLA value.

In this study the students all were motivated by the desire to interact more with the Guatemalan people, understand more of their culture, history, and problems. That background influenced their choices of language activities, but within a menu of pedagogically wholesome choices, they were free to select. Student freedom of selection in such cases is particularly to be respected because the reality of their communicative needs keeps them actively involved in some sort of language acquisition enterprise. However, the traditional language classroom tends to encourage a much more passive attitude on the part of students. In such a situation, educators should provide structure that results in a forced choice: the expectation should be that students **MUST** choose X number of options and will be held accountable for following through with those choices. Students must not have the option of doing nothing at all. With that caveat, student-centered learning appears a sound principle to guide SLA teaching.

Consistent preferences for either deductive or inductive activities were associated with the analytic and gestalt type students in the Guatemalan foreign language study. I suggest that such preferences would be stable across academic subject areas, and that, when ways of satisfying preferences are available, more learning would take place than when preferences cannot be accommodated. Matching activities to student cognitive style should result in more efficient learning, at least initially. It would be interesting to test for whether/when unmatched activities encourage language growth. Perhaps after a student is comfortable with his/her initial progress in SLA, or any subject area, involvement in collaborative learning of the next phase of the subject matter with students whose cognitive styles differ would prove to be an enriching experience. Since technology is increasing learning options at a fast rate, we are becoming more able to provide our students an ever wider menu of pedagogically valuable activities in every field of study. They should be able to find learning activities that either match their cognitive style preferences, or deliberately target a different and more challenging type of experience. The students in the Guatemalan study showed much more proactive effort in arranging their learning environment than what is usually seen in a classroom environment. It is possible that involvement in process of choice is a significant variable in student attention to task. That, too, is worthy of being tested and, if true, has implications for other fields of study.

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