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The Effect of Sequent Input on Speech Accuracy and Fluency in Adults at the Intermediate Level

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THE EFFECT OF SEQUENT INPUT ON SPEECH ACCURACY
AND FLUENCY IN ADULTS AT THE
INTERMEDIATE LEVEL

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THE UNIVERSITY OF SAN FRANCISCO
Dissertation Abstract

The Effect of Sequent Input on Speech Accuracy and Fluency in
Adults at the Intermediate Level

To help students achieve their potential, input/feedback must be sequenced by the level of complexity that immediately follows the student's actual developmental level. I assert that effective input/feedback has to follow a set of suggested but not directly expressed rules that represent basic criteria for the development of communicative competence. This study made these criteria explicit, and converted them into ready-for-use input/feedback specifications. Such specifications allow instructors to provide effective remedies to treat particular interlanguage errors. Thus, it is important that instructors understand how to sequence input/feedback to target students differentially in response to their different proficiency levels.

The study was based on the pretest–posttest control-group design with 15 participants in each of the experimental and control groups. The intervention treatment for the experimental group was provided through sequenced inputs (SI) whereas the control group did not receive a treatment.

The posttest findings revealed that the intensity of speech inaccuracy in the experimental group showed a statistically significant difference compared to the control group in word-order errors and lexical-choice errors. However, there was no significant difference in the intensity of disfluency (total pausing time, length of run, and speech rates) before and after the intervention between the experimental and control groups.

These results suggest SI could be used as one instructional methodology to develop communicative competence.

Insights gleaned from the data analysis are made accessible in the form of (a) capsulated text typology providing familiarity with various input contexts, and (b) an analogical-reasoning method indicating trends of how certain interlanguage errors are often treated, based on gaining insights into possible treatments from existing facts in the same or dissimilar contexts. The key contributions from this work are (a) an empirical data set of input/feedback specifications to target students differentially in response to their actual developmental levels, (b) an insightful comparison of SI feedback on the basis of detailed text-typology criteria, (c) documentation of SI feedback correlated with detailed text-typology criteria, and (d) documented input feedback insights.

This dissertation, written under the direction of the candidate's dissertation committee and approved by the members of the committee, has been presented to and accepted by the Faculty of the School of Education in partial fulfillment of the requirements for the degree of Doctor of Education. The content and research methodologies presented in this work represent the work of the candidate alone.

Salah A. Farah	November 21, 2013
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	Date

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DEDICATION

I dedicate this dissertation to my best friend, Dr. Omer Elgarrai, who has always helped

me and believed that I could do it.

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Finally, to my dearest wife Somaya, I am short of words to express my gratitude to you. You carried me on your wings as I hurdled through all the obstacles in the completion of this doctoral program.

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CHAPTER I

THE RESEARCH PROBLEM

Introduction

What kind of input/feedback is optimal for a particular language learner? Without doubt, this question is immediately comprehensible to any committed language instructor, and most instructors are likely to want concrete answers to address their immediate practices.

There are problems in language teaching and learning. One such problem is that providing and processing input/feedback can be overwhelming for the instructor and the student. To provide appropriate remedies to treat errors with minimum effort, an instructor needs a treatment that is precise and effective. In addition, the treatment should not be overly confounding for the student.

In the field of communicative language instruction, an experienced instructor applies an eclectic combination of input/feedback strategies depending on the context (Mackey, Polio, & McDonough, 2004). However, *eclectic* is understood as *unsystematic*. A line of research (e.g., Harley, Cummins, Swain, & Allen, 1990) showed that students who receive input/feedback that focuses on meaning develop high levels of comprehension skills as well as considerable speech fluency, but experience difficulties in developing speech accuracy.

This chapter discusses the problem statement, the background and need for the study, the purpose of the study, research questions, the theoretical framework, and the operational definitions of terms that apply to this research study. The background of the study includes instructional input/feedback formulation, language-proficiency ratings,

and language-proficiency rating scales, whereas the problem statement and the purpose of the study address issues facing the process of error treatment. Finally, the theoretical framework introduces the main theories that underlay this research study.

<div align="center">Statement of the Problem</div>

A challenge for communicative-language instructors is how to bring about a balance of speech accuracy and fluency. An instructor either keeps interrupting students for speech accuracy at the expense of speech fluency, or encourages fluency at the expense of accuracy. It is not always clear what instructors should do to best serve their students (Hunter, 2012). Input/feedback processes tend to be characterized by uncertainty rather than specifically identified consequences. Guenette (2007) pointed out that one reason for this uncertainty lies in the failure to develop an effective input/feedback strategy. The absence of such a strategy led some scholars to view the correction of interlanguage errors as useless, harmful, and causing anxiety (Krashen, 1994; Truscott, 1996).

In response to this dilemma, Scheffler (2008) urgently called for empirical research to document how error treatment, followed by practice, affects the development of communicative competence. Some researchers recommended error-treatment strategies to bring about a balance of speech accuracy and fluency. For example, Bitchener (2008) suggested instructors and students might benefit from focusing on "one or only a few error categories" at a time (p. 108). The idea is that by asking instructors to classify and ration error treatments, the desired balanced of speech accuracy and fluency would be achieved. If communicative competence would be improved over time, then how long would it take for errors to work themselves out?

This simple question raises other questions about the objectives of communicative competence and the input/feedback methodologies for realizing these objectives. A strategy to develop communicative competence is needed to explain how to bring about a balance between speech accuracy and fluency.

Background and Need for the Study

To bring about balance of speech accuracy and fluency, instructors must be aware of the possible factors that are likely to influence the effectiveness of input/feedback strategies. One of these factors is the student's developmental level (Ammar & Spada, 2006; Havranek & Cesnik, 2001; Mackey & Philip, 1998). Input/feedback is unlikely to work if it is beyond the student's developmental level. Furthermore, researchers hypothesized that an instructor will provide more effective input/feedback when equipped with instructional specifications to target each student differently in response to his or her actual developmental level (Ammar & Spada, 2006; Havranek & Cesnik, 2001; Mackey & Philip, 1998).

I recognize the need for input/feedback specifications. In response to this call, I suggest the adoption of general consensus about a set of language-proficiency criteria as input/feedback specifications to target learners differentially in response to their developmental levels. The suggested specifications are the criteria featured in the American Council on the Teaching of Foreign Languages (ACTFL) *Proficiency Guidelines* (2012), which were developed from the U.S. government's Interagency Language Roundtable (ILR) scale and were an adaptation intended for use in academia (Breiner-Sanders, Lowe, Miles, & Swender, 2000). The ACTFL Proficiency Guidelines comprise four major levels: novice, intermediate, advanced, and superior. The first three

levels are each subdivided into three sublevels: low, mid and high. In contrast, the ILR

scale covers 11 levels of proficiency (0, 0+, 1, 1+, 2, 2+, 3, 3+, 4, 4+, and 5). The

difference between the two scales is only in the rating categorization and not in content.

A categorization comparison of the ILR scale and the ACTFL scale is provided in Table

1.

Table 1

Comparison of the ILR Scale and the ACTFL Scale

ILR scale	ACTFL scale
Level 0	Novice-Low to Novice-Mid
Level 0+	Novice-High
Level 1	Intermediate-Low to Intermediate-Mid
Level 1+	Intermediate-High
Level 2	Advanced
Level 2+	Advanced Plus
Level 3 to Level 5	Superior

Note. ILR = Interagency Language Roundtable; ACTFL = American Council on the Teaching of Foreign Languages.

A language-proficiency scale, whether ACTFL or ILR, is often explained by an

inverted pyramid that compares levels of language proficiency. According to the ACTFL

(2012), the inverted pyramid illustrates, at the novice level, a relatively small range

compared to the intermediate level, as the latter indicates a significant jump in the

amount of language knowledge a speaker must perform. In short, the ILR scale and the

ACTFL scale range from no language proficiency to functionally native proficiency. For

this study, I preferred to use the ACTFL scale over the ILR. An illustration of the two

scales appears in Figure 1.

Functionally native proficiency

```
        5
        4        } Superior
        3
        2  ————→ Advanced
        1  ————→ Intermediate
           ————→ Novice
```
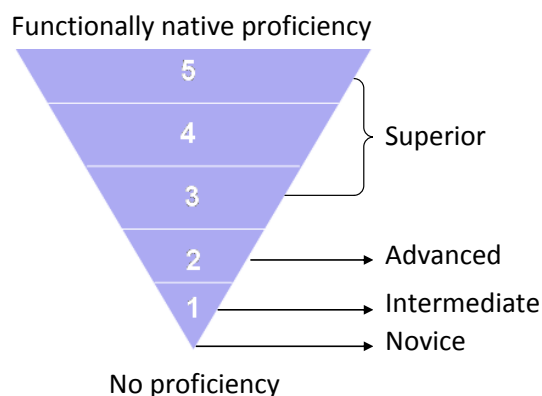
No proficiency

Figure 1. Inverted pyramid showing ACTFL and ILR rating scales.

ACTFL (2012) provided language-proficiency guidelines, which are detailed descriptions of the kinds of communication functions, range of vocabulary, degree of accuracy, and flexibility speakers are able to control at different proficiency levels. For example, the discourse (text type) of an ACTFL-intermediate-level speaker is characterized by sentences or phrases, normally limited to the present time, with little use of cohesive devices or embedded sentence structure (see Appendix A). Such detailed text-typology criteria can be helpful in sequencing instructional input/feedback in response to errors at a particular rated level of proficiency.

I chose these rating criteria on the grounds that ACTFL, according to its mission statement, is the only national organization dedicated to the improvement and expansion of the teaching and learning of all languages at all levels of instruction. The present study is based on the idea that rating the developmental level of the student is necessary to determine what an instructor should do to help each student reach the next proficiency level.

A language-proficiency rating is important for teaching as well as learning. A language-proficiency rating benefits instructors and students to be aware of what students

can do, and what it is they still need to grasp to reach the next proficiency level (S.-Y. Lee, Moon, & Long, 2009), for example, to move from low-intermediate to mid-intermediate? The proposed sequent input (SI) strategy contributed to answering this need. The SI strategy not only seeks to ensure that inputs target students differentially in response to their individual proficiency levels, but also to apply what is learned from the ACTFL text typology to specify and structure input/feedback requirements clearly and precisely.

Purpose of the Study

A number of studies (Chamot, 2005; Dupuy, 2000; Krashen & Seliger, 1975; Spada & Lightbown, 1999) show that students who received structured instruction have performed equally or better in language-proficiency achievement than the group who did not receive structured instruction. None of these studies have specifically investigated the effect of sequenced input/feedback on students' communicative competence.

The purpose of this research was to investigate the effect of SI on students' communicative competence, and to determine the usefulness of the input/feedback specifications put into practice by SI's pretest and posttest assessments. The goal is to test a process for developing communicative competence in students. To do so, I field tested this SI method with a group of intermediate Modern Standard Arabic (MSA) adult students to find out whether a repeat practice with SI feedback offers effective error treatments and will result in significant changes in speech accuracy and fluency.

Speech fluency requires students to repeat utterances that would occur naturally in a normal communicative situation. Thus, what is needed is an activity designed to enable

students to repeatedly practice many tokens of target sentences while they are engaged in real communication (Gatbonton & Segalowitz, 1988).

Current research on the effectiveness of repeat practice (Ahmadian & Tavakoli, 2011; Gatbonton & Segalowitz, 2005; Lynch & Maclean, 2001; Michel, Kuiken, & Vedder, 2007; Robinson, 2001; Skehan, 2009; Skehan & Foster, 1997) showed increased communicative competence. Most studies conducted on repeat practice have focused on its use as a supplemental or remediation tool in traditional communicative-teaching classrooms. Traditional communicative instruction has the potential to expose language learners to other sources of additional feedback besides repeat practice.

None of the aforementioned research studies investigated the ACTFL Proficiency Guidelines as input/feedback specifications. Thus, this research study was conducted to investigate the effect of SI feedback on communicative competence in a language-immersion environment, as well as to investigate the usefulness of its instructional specifications.

This study was designed to increase understanding of the process by which a language instructor develops an effective input/feedback strategy; in particular, how an instructor can develop the ability to spontaneously provide effective input/feedback to target students differentially in response to their individual language-proficiency levels. The overall objective is to raise language instructors' awareness of ACTFL Proficiency Guidelines as valuable input/feedback specifications to target students differentially in response to their individual developmental levels.

Research Questions

The broad research question, "How does one develop communicative competence?" was posited to investigate the effects of SI feedback on speech performance. The study was concerned with the following research questions:

Research Question 1: Will there be a significant difference in speech-accuracy achievement of intermediate MSA adult students based on the instructional method used (repeat practice with SI feedback versus traditional communicative instruction) to develop communicative competence?

Research Question 2: Will there be a significant difference in speech-fluency achievement of intermediate MSA adult students based on the instructional method used (repeat practice with SI feedback versus traditional communicative instruction) to develop communicative competence?

Theoretical Rationale

In the course of defining language learning, Gifford and Mullaney (1999) maintained that two theoretical frameworks—J. Lee and VanPatten's (1995) input processing model and Vygotsky's sociocultural model—cooperatively serve as a desirable applications model and present complementary insight into the language-learning process. Consequently, these two theoretical principles underlay the present study. This theoretical framework emphasizes that communicative competence develops sequentially in response to social interactions through communication in a mutual rather than an individual experience.

According to the input processing model, language learners naturally process input and develop meaningful communication through social interactions and reflection

as they seek to understand their target language and how it works (J. Lee & VanPatten, 1995). Though at first they process only on meaning levels, eventually learners can begin to understand complex forms and develop communicative competence in their target language.

J. Lee and VanPatten (1995) believed in the literal meaning of the term *development;* that input-processing steps unfold through development. They described input processing as occurring in distinct steps that often fall in the same order. In contrast, Vygotsky (1978) presented evidence that imitation causes improvement in communicative competence.

Although sociocultural interactions provide the medium for students to develop communicative competence, such competence is also highly dependent on an instructors᾽ ability to scaffold students during these sociocultural activities (Raymond, 2000). Sociocultural interactions help open language awareness on all levels: metalinguistic, metadiscursive, metapragmatic, and metacultural. This view has been supported by other second-language-acquisition researchers (e.g., Gass, 2003; Long, 1996) who found that the sociocultural model facilitates communicative performance because students receive corrective feedback while engaging in sociocultural interaction. In essence, the input processing model shows that each student processes inputs for meanings before processing them for forms, whereas the sociocultural model asserts that communicative performance is constructed through testing these processed inputs in sociocultural interactions.

Significance of the Study

This study is significant for three reasons; the findings from this research provide practical information to language instructors. Knowing the positive effect of SI feedback on students' communicative competence will help instructors incorporate SI in their instruction practices. Also, instructors armed with information on the effect of SI on students' communicative competence, and the input/feedback specifications put into practice by SI in the pretest and posttest assessments, will be in a better position to guide students' speech performance. Third, students are more likely to gain communicative competence and retain target-language knowledge when the decision to sequence input/feedback for instruction and learning is based on research.

As previously mentioned, the aim of this study was to examine whether a sequenced input/feedback based on ACTFL Proficiency Guidelines would result in improved communicative competence. If this intervention was successful, it could be adopted in second-language-acquisition programs to assist students to develop communicative competence. It was also expected that this study would contribute to the existing body of knowledge by (a) increasing understanding of students' input/feedback processing as they manage complex communication situations; (b) identifying whether repeat practice with an SI strategy is a viable approach to develop communicative competence; (c) providing language instructors with insights on appropriate instructional guidelines to provide effective input/feedback; and (d) providing pertinent information on how best to balance speech accuracy and fluency in meaningful interactions.

In essence, the present study provides empirical evidence and increases awareness among language instructors about the use of ACTFL Proficiency Guidelines as

instructional input/feedback specifications to develop communicative competence. In addition, findings provide important suggestions for conducting additional research on input/feedback specifications based on ACTFL Proficiency Guidelines, as no such studies have been conducted in this field.

Delimitations of the Study

Participation in this study was delimited to adult students who (a) study MSA, (b) at DLIFLC in Monterey, California, and (c) have reached ACTFL-intermediate proficiency level. Only 30 students who met all these qualifications were included in the study. The results of the study are generalizable to students of other languages who (a) study their target languages, (b) at DLIFLC in Monterey, California, and (c) have reached ACTFL-intermediate proficiency level.

Limitations of the Study

The first limitation of this study centers on external validity, or the generalizability of the study. Only military personnel participated in the study. In addition, participants were all adults of almost equal age who had no learning disabilities. Second, because of the limited time available, the study was of limited scale and scope, such that study results may not be fully representative of the views of the relevant practitioners who have an interest in improving communicative-competence strategies. Finally, researcher bias (my teaching experience) may have had a significant effect on the outcome.

Although the study is useful in gaining understanding of input/feedback contexts and the needs and priorities of the field of communicative teaching, it is clear that more

detailed studies should be undertaken. Overall one can say that the study was constrained by the following:

1. As the instructor and researcher, I was aware that my personal bias could affect the design, sampling, measurement, and interpretation of data collected in this study. I have taught MSA for several years and have facilitated speaking classes for several years using SI strategy. During this period I have seen students' achievements and failures in MSA speech performance. The criteria I continue to use in teaching is the ACTFL Proficiency Guidelines, which is an oral-proficiency interview (OPI) assessment-based system. Because OPI is an achievement test that reveals the proficiency level of a learner and provides focused instruction based on the developmental level of the learner, I expected students who received SI feedback would improve in communicative competence. I also expected those teachers who have followed the prescribed proficiency guidelines provided by ACTFL (i.e., the hierarchy of global functions, context/content, accuracy/comprehensibility, and text type) would provide better input/feedback to students than those teachers who did not. However, because ACTFL Proficiency Guidelines produced all necessary feedback specifications required for this study, I was confident that this reduced potential researcher bias in this study.

2. As an instructor, I had no control over what additional resources, beyond SI feedback, participants used to improve their communicative competence. For example, peer discussions during Small Talk sessions could have been used to improve communicative competence.

3. I used purposeful sampling. Therefore, generalizations of the results from this

    study are limited to a group similar to the participants used in this research.

    Other generalizations may or may not apply.

<div align="center">Operational Definitions of Terms</div>

This section describes some of the key terms used in the research study. For the

purpose of this study and for the reader's better understanding, these key terms are

conceptually and operationally defined.

Accuracy. The quality of being correct as well as the degree to which the

produced language conforms to a linguistic norm. Housen and Kuiken (2009) referred to

the term *accuracy* as the degree of deviance from a particular norm.

Error. A deviation from accuracy or correctness. Housen and Kuiken (2009)

defined the term *error* as a deviation from a particular norm.

Fluency. The ability to speak a foreign language (L2) with facility and accuracy.

Brumfit (1984) distinguished between *fluency*, a reflection of "truly internalized

grammar," and "overt and conscious accuracy" and suggested that fluency should be

"regarded as natural language use, whether or not it results in native-speaker-like

language comprehension or production" (p. 56).

Input. Any information that is made available for the learner to process is

considered input. VanPatten and Benati (2009) defined the term *input* as the language

knowledge that learners come across in a communicative context.

Interlanguage. A term coined by Selinker (1972) to reference the type of

language produced by a nonnative speaker in an attempt to express meanings in the target

language. This type of language falls between the speaker's native-language system and the system of the target language.

Proficiency. A degree of communicative competence. Hadley (2001) defined the term *proficiency* as the learner's overall language ability (including fluency, accuracy, and complexity) based on generally accepted criteria or measures.

Sequent input. Comprehensible information that happens in a purposeful way and helps someone advance in knowledge. Sequent input means that a language learner should be able to understand the essence of the provided information.

Small talk. A very short learner-centered conversation about common interests. According to Hunter (2012), Small Talk is a comprehensive approach to developing speech accuracy, fluency, and complexity.

<div align="center">Summary</div>

In the context of communicative instruction, repeat practice is the strategy central to all decisions related to error treatment, regardless of the complexity or focus of the decision. Repeat practice provides instructors with accurate, relevant, and timely information to enable them to make input/feedback decisions with a high degree of assurance.

The key to effective input/feedback strategy is accurate information. Detailed information related to various communication contexts and proficiency-rating criteria is crucial for developing an effective input/feedback strategy. The primary responsibility of any language-teaching research endeavor is to design a strategy that yields the most accurate information possible to aid the development of an effective input/feedback strategy.

This study focused on adult students who were practicing speaking in an immersion environment. The study investigated the effect of SI feedback on students' communicative competence and determined the usefulness of feedback specifications put into practice by the SI strategy in pretest and posttest assessments. The skills-assessment criteria used in the SI strategy is based on ACTFL Proficiency Guidelines; thus, the feedback specifications put into practice by use of the SI strategy on the pretest and posttest assessments was determined using the ACTFL text typology. Finally, to facilitate the collection of meaningful data, Chapter 1 included an operational-definition section, describing terms as they apply to this research study. In the subsequent chapters, the literature review and a detailed description of the process for implementing SI strategy are described.

CHAPTER II

REVIEW OF LITERATURE

Introduction

In this chapter, I discuss different aspects of communicative instruction. First, I provide a brief history of the development of communicative instruction, along with a general description of several of the most influential instructional approaches and methods: grammar-translation method, direct method, audiolingual method, and communicative-teaching method. Second, I explain input/feedback in communicative instruction. Then, the chapter includes an overview of research into input/feedback and its key findings. Finally, I discuss instructors' and students' perception of input/feedback.

Development of Communicative Instruction

A debate on communicative-instruction methodologies has evolved, particularly over the last 100 years, about their usefulness and appropriateness (Liu & Shi, 2007). Over time, this debate has changed, as national policymakers and academics strive to produce more individuals with proper foreign-language expertise to work on important national-security and foreign-policy issues.

In the United States, there has been increasingly widespread national concern about properly training citizens to communicate in L2s to secure the nation's future economic welfare in a growing international economy (Schorr, 2000). A common view is that there is a mismatch between current foreign-languages (L2) training and national economy and security needs. This growing national concern has urged Congress to adopt, on February 17, 2005, a resolution designating 2005 as the Year of Foreign Language Study (see Appendix B).

Academics play a critical role in the needed improvement in L2 training by the way they provide language instruction and information to students. All concerned parties in the field of L2 training must gain a deeper understanding of factors that contribute to communicative competence and explore what types of instructional approaches and methodologies influence student communicative competence. Students have different learning style approaches—for example global or analytic, auditory or visual—that students use in processing language knowledge to develop communicative competence. These learning styles are "the overall patterns that give general direction to learning behavior" (Cornett, 1983, p. 9). For that reason, an instructional strategy that is effective for an individual student may not prove successful for another student. Furthermore, a learning style that produces positive results with a particular student may not have the same effect on another student. To some degree, methodologies currently used in L2 instruction represent a combination of teaching beliefs.

The Grammar-Translation Method

Liu and Shi (2007) described the grammar-translation method as an instructional approach based on the teaching of L2 grammar. Its principle technique is translation from and into the target language. In practice, this method is a teacher-centered model such that the teacher decides what is to be practiced, what is to be assessed, and how the class is to be directed. One important shortcoming of the grammar-translation method is that students do not achieve the proficiency goals necessary to effectively communicate or function in the target language (Hadley, 2001).

The Direct Method

The direct method is viewed as a shift from literary language to spoken everyday language as the object of early instruction (Liu & Shi, 2007). One main principle of this method is the ability of students to learn grammar rules through imitation, repetition, speaking, and reading activities (Hadley, 2001). However, teaching language using this method does not provide logical and sequential practice and can lead to inaccurate use of the language. Another shortcoming is that this method is inapplicable beyond the elementary stage of communicative-language learning (Liu & Shi, 2007).

The Audiolingual Method

In their review of L2 teaching methods, Liu and Shi (2007) pointed out that the audiolingual method assumes that L2 acquisition entails mastering the elements or building blocks of the target language and learning the rules by which these elements are combined, from phoneme to morpheme to word to phrase to sentence. This method uses dialogue as the primary system by which L2 acquisition is brought about and gives particular emphasis to a selection of procedures, such as pattern drills and mimicry. The practical results, however, fell short of expectations and students were often found to be unable to transfer skills acquired through this method to real-life communication outside the classroom.

The Communicative-Teaching Method

The communicative-teaching method encourages activities that involve real communication to carry out meaningful tasks (Liu & Shi, 2007). Students are expected to negotiate, while instructors are expected to facilitate, guide, analyze, counsel, or act as group-process manager.

In spite of helping students develop communicative fluency, the communicative-teaching method was also criticized in many ways, with some language professionals raising points of criticism (e.g., Celce-Murcia, 1991; Larsen-Freeman, 1990; Savignon, 1990; Schmidt, 1991; Swain, 1985; Widdowson, 1990). Much of their criticism was related to content and pedagogy in the communicative-teaching method. For example, this method focuses on the functional aspects of language at the expense of formal structures; it places heavy demands on learners by emphasizing their needs and interests. Of concern in the present study is Swain's (1985) view that the communicative-teaching method gives priority to meanings rather than to forms. This may result in language fossilization.

<center>Input/Feedback in Communicative Instruction</center>

Input/feedback is not a segmented part of communicative instruction but is implicated in the complex function of variation that occurs in the process of aligning the instructor and student in their concerns, perceptions, and levels of knowledge. Inconsistencies or even conflict may arise due to differing concerns.

Teachers need to participate in genuinely communicative instruction while simultaneously paying attention to and remembering the form of the utterances produced by students. These two functions are unlikely to happen at the same time because students who are engaged in genuine communicative interaction focus on meaning more than form (Skehan, 1996).

Utterances produced by students are influenced by the self-developed systems implicit in their input/feedback. The term "real teaching" captures the potential for instructor and student perceptions to align (Hunter, 2012). To clarify these potentially

conflicting perceptions, Hunter (2012) proposed the Small Talk methodology. Small Talk is a consistent teaching methodology to analyze and respond to student language, and appears to target students differentially in response to their self-developed systems.

Analyzing and responding to the utterances produced by students is considered to be the dominant influence in the way students process inputs (Hattie &Timperley, 2007). Analyzing and responding to the utterances produced by students lies at the heart of the students' self-developed systems (Hunter, 2012). Teachers focused on developing communicative competence must consider the students' self-developed systems. The active focusing of student attention on both form and meaning to actively process input is what develops communicative competence (Wong, 2009).

Processing input/feedback effectively requires answering three major questions asked by an instructor or a student: Where am I going? (What are the goals?), How am I going? (What progress is being made toward the goal?), and Where to next? (What activities need to be undertaken to make better progress?; Hattie & Timperley, 2007). In other words, to be effective, input/feedback needs to be clear, purposeful, meaningful, and compatible with students' prior knowledge and must provide logical connections. Bridging the gap between where students are and where they are aiming to be is what determines the effectiveness of input/feedback (Sadler, 1989). The main purpose of input/feedback is to reduce discrepancies among existing perceptions, performance, and an objective (Hattie & Timperley, 2007).

Effective input/feedback facilitates critical analysis and self-reflection on students' learning process to correct errors, as self-reflection is considered an important component of developing strategies to gain communicative competence. Errors are part

of the developmental process, and are the students' attempts to have meaning that pave the way for learning and for noticing what they need to learn (Willis, as cited in Hunter, 2012).

The effectiveness of input/feedback methodologies might be determined by intervening factors, such as a student's level of proficiency or metalinguistic awareness, the type of error that is targeted, the goal an instructor tries to achieve by providing input/feedback, or the type of knowledge (i.e., existing perception vs. new perception) an instructor determines to impart (Van Beuningen, 2010). Instructors need to be aware of the strategies that are effective to overcome barriers, as this will ensure students are provided opportunities to make use of instructors' input/feedback to develop their communicative competence.

Lack of knowledge about when and how to provide particular input/feedback involves not only making erroneous decisions but also the inability to notice the errors. All students make mistakes and commit errors (Erdogan, 2005). Instructors can remedy this problem by helping students notice errors and operate on them according to the input/feedback given. In other words, the active focusing of student attention on errors is sufficient to avoid inaccurate expression or any major defects in syntax.

To help teachers overcome the dilemma of when and how to provide input/feedback, R. Ellis (2001) clearly detailed techniques including *consciousness-raising tasks*, such that students must uncover the grammatical rules from context; and *focused communicative tasks*, which are intended to direct attention to the need for specific grammatical elements to promote the production of a specific targeted form in

the context of performing a communicative task. This method assumes the teacher is aware of the language knowledge that is attainable by the student.

Introducing a specific comprehensible grammatical element in an achievable communicative task helps students notice differences between their interlanguage and the target language structure. Set targets are more constructive than nonspecific ones, mainly because they focus students' attention on form, and input/feedback can then be more sequentially guided (Locke & Latham, 1990).

Teachers should bear in mind the disparity in students' developmental levels of readiness when deciding whether a specific language element is relevant in a given context (Rodriguez, 2009). In other words, an input/feedback strategy that targets language students differentially in response to their developmental levels is more effective in developing communicative competence than other strategies.

The key implication of the above strategies for the present research study is that all elements of the input/feedback process need to be considered. This total view is unlike the narrow focus on improving the instructor's ability to provide better corrective feedback. The present research study focused on both input and feedback, noting the lack of distinct boundaries between the two, given that under particular circumstances, input is more useful than feedback. Feedback can only build on something; it is of little use when there is no initial input or at least superficial knowledge (Hattie & Timperley, 2007).

An overview of research into input/feedback and its key findings is presented below with a focus on the following themes:

- error correction and input processing

- input processing and student self-repair

- types and gravity of errors

- sequent input/feedback and student developmental readiness

- culturally appropriate communication

- instructors' and students' perceptions of input/feedback

<div align="center">Error Correction and Input Processing</div>

Many theories describe the treatment of interlanguage errors and mistakes. A general characteristic of these theories is that they distinguish between errors and mistakes. An error, according to the theory of error-analysis hypothesis, is what takes place when the deviation from the norm of the target language arises as a result of lack of knowledge, whereas a mistake arises when learners fail to perform their competence (Maicusi, Maicusi, & Lopez, 2000). An interlanguage error is a linguistic form or combination of forms which, in the same context and under similar conditions of production, would, in all likelihood, not be produced by native speakers (Lennon, 1991).

Researchers highlighted the importance of error treatment as a key aspect in L2 acquisition, and in the process of improving communicative competence in students. Accordingly, they focused their research in this direction. For example, Maicusi et al. (2000) configured a conceptual model of error treatment to help develop strategies for the principal of language as a self-contained system. They recommended, to treat an error an instructor should consider the three phases of its treatment: localization, identification, and correction. Maicusi and colleagues believed it is greatly important for an instructor to try to find out why an error is made and provide appropriate treatment, because not all types of error must be treated in the same way.

Because no instructor has time to deal with all student errors, a hierarchy should be established for the treatment of errors according to the nature and significance of each error. In such a hierarchy, priority should be given to frequent errors that may impair communication and cause incomprehensibility (Erdogan, 2005). In other words, errors should be treated that impair communication significantly and are produced frequently by the students.

In addition to the distinction between errors and mistakes, Burt (1975) distinguished between two types of errors: *global* and *local*. Burt referred to errors that could impair communication and cause incomprehensibility as *global* errors (e.g., word-order errors, lexical errors), whereas minor deviations from linguistic norms that do not impair communication are *local* errors (e.g., morphological errors). Accordingly, to hasten the process of L2 acquisition, only global errors should be corrected because they impair communication significantly.

Pienemann (1998) found that a series of inputs/feedback conducted in a certain order may hasten students' development from one proficiency level to the next. Language elements need to be taught in the order in which they are learnable. If a targeted grammatical form is incomprehensible, providing input/feedback should have little effect on improving students' communicative competence, because the new knowledge refers to criteria the students has not yet comprehended fully.

For a grammatical forms to be grasped it has to be taught in a way that conforms to the natural processes of acquisition (Long, 1988). This will ensure the gradual progression of learner from novice, to intermediate, and so forth. Thus, grammatical forms improve substantially.

Burt (1975), Long (1988), and Pienemann (1998) explained, systematically and in detail, how to measure good input/feedback processing practices. VanPatten (2002) identified two key interlocked principles of input/feedback processing that L2 learners follow in their attempt to establish connections between forms and meanings. Learners are only able to process input for meaning before they can process it for form. These two key interlocked principles are illustrated in Figure 2.
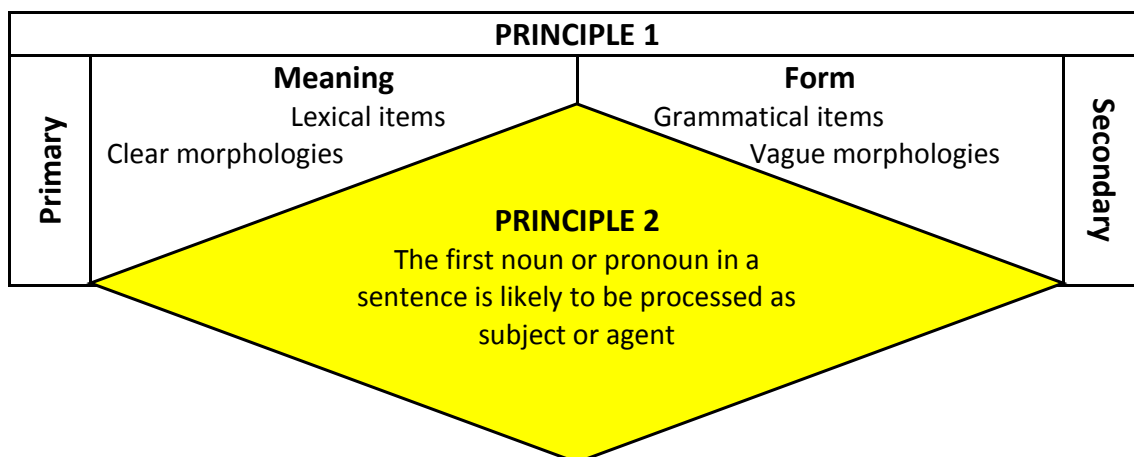
Figure 2. The two key interlocked principles in J. Lee and VanPatten's (1995) model of input processing.

Input processing and error treatment contain meaning and form. Establishing connections between meaning and form is a fundamental aspect of input processing (VanPatten, Williams, & Rott, 2004). According to the latest research (e.g., Hattie & Timperley, 2007; Hunter, 2012; Van Beuningen, 2010; Wong, 2009), feedback is the most important part of the input process for its potential to affect students' communicative competence. Such attention to the importance of feedback resulted in an acceptance of error-treatment practices that seem to diminish the wide acceptance of the types of direct corrective feedback that might be more successful in promoting input processing. Advocates of direct corrective feedback (e.g., Chandler, 2003) presented

evidence that the indirect approach might fail because indirect corrective feedback

provides students with inadequate information to work out complex errors (e.g., syntactic

errors; Van Beuningen, 2010). Direct corrective feedback bears immediately and

explicitly on the intended accurate form, and guides students' ability to make considered

decisions (Chandler, 2003). Furthermore, with direct corrective feedback, explicit

knowledge becomes implicit knowledge, if students have an opportunity to engage in

more communicative practice (DeKeyser, 1998).

A fundamental question about the priorities in the process of error treatment is,

What kinds of treatment for what kinds of errors are effective for what kinds of learners?

(Kennedy, 2010). Several attempts to articulate this important question called for

reducing the amount of error correction because too much corrective feedback can make

students reluctant to speak, whereas not enough may allow their errors to become

entrenched (Hunter, 2012). Yet, this call is likely to be achieved by answering Kennedy's

fundamental question.

Feedback is far more than providing remedies to treat students' errors. The

literature review revealed that not only the feedback practice promotes students'

performance, but also how it is used to foster input processing promotes communicative

competence in the students. Thus, investigators should study instructors and students to

gather data pertinent to input processing in communicative-language contexts.

Input Processing and Student Self-Repair

Input means language knowledge that students are exposed to in a communicative

context (VanPatten & Benati, 2009). It is knowledge provided by an agent (e.g.,

instructor, interlocutor, self) regarding aspects of student's communicative competence

(Hattie & Timperley, 2007). Only carefully selected comprehensible input enables students to repair their own errors and take action to establish connections between form and meaning. When the implicit knowledge of the system is in place, the student can make considered grammatical decisions and come to sensible conclusions (Scheffler, 2008). In other words, more informed students use internal assessment to soundly judge grammatical structures and assess input processing. Such implicit knowledge is a desirable end in itself; teaching grammar early is valuable because it provides a foundation for input processing and student self-repair (N. Ellis, 2005).

Input processing and self-repair require at least essential principles of the targeted grammatical elements (Long, 2007). The existence of various sources of language knowledge (instructor, interlocutor, self) causes essential principles of the targeted grammatical elements to stand out clearly as integral parts of input processing, requisite for assessing communicative accuracy and fluency. Essential principles of grammar are likely to bring in each of these types of input processing across the sequence of L2 acquisition. However, generally agreed grammatical principles, with clear empirical support, are lacking for the selection of grammar elements that may merit explicit treatment in any effective sequence of input processing (Mitchell, 2000).

Types and Gravity of Errors

The practice of L2 acquisition involves the student's perception of the purpose of instruction. Adult students prefer to have language knowledge neatly organized and may expect to receive explicit instruction and direct error correction (Lightbown & Spada, 2006). Error treatments implicate both the student's preferred goals of developing communicative competence through explicit instruction, and the instructor's goals of

cost-efficient developmentally appropriate instruction at satisfactory levels of proficiency. Improvements in error treatments have the prospect of positively influencing students' communicative competence (the input processing) and the assessment of communication (perception of competence). The present study sought to compare factors likely to cause a negative response against considering useful error treatments among language teachers.

It would reasonably follow that the treatment of error represents teachers' understanding of the role of feedback in students' communicative competence. In most cases, the language grammatical component is the one that tends to be favored in the global assessment of communicative competence (Salaberry, 2000). However, for speech-performance instructions, it is usually recommended that students making mistakes (i.e., slips of the tongue) during a fluent verbal communication should not be interrupted, but later be reminded of the mistakes and talk about the reasons (Erdogan, 2005). In other words, as mentioned earlier, errors that should be corrected by instructors are those that impair communication significantly and are produced frequently by the students.

Two major types of errors that may or may not impair communication are applicable to interlanguage errors. R. Ellis (1997) forwarded a premise that forms the basis for a theory and explanations of the source of interlanguage errors to enable teachers to determine effective treatment. The quality of error treatments thus plays a crucial part in our assessment of communicative competence. R. Ellis's proposition that forms the basis of error diagnosis is based on the concept that some errors have the potentiality to impair the communication process or any other elements within that

processing. R. Ellis identified *global* errors, which indicate communicative incompetence and overall incomprehensibility; and *local* errors, which are usually minor deviations from the norm, and do not impair the communication process. Local errors usually need not be corrected as long as the message is comprehensible because correction of such minor errors might interrupt speech fluency (H. D. Brown, 2000). In contrast, global errors need to be treated in some way, because communication is impaired.

Four additional types of errors were classified by Corder (1973) to identify and treat interlanguage errors. Valuable in the current study, these four types of error are *omission* of some required element; *addition* of some unnecessary or incorrect element; *selection* of an incorrect element; and *misordering* of the elements. Then, Corder placed these types of errors in two groups: *overt* and *covert*. At the sentence level, for example, overt errors are categorically ungrammatical while covert errors are grammatically well-formed but are not interpretable in the context of the communication. Corder gave the following example: "I'm fine, thanks." is a correct sentence but if it is given as an answer to the question of "How old are you?" it is a covert error.

Few studies investigated instructor beliefs and perceptions about the treatment of communicative errors. One example is another study by Corder (1967) to investigate the significance of learners' errors. Communicative errors reveal gaps in students' interlanguage system and will therefore be systematic themselves. Unsystematic inaccuracies (i.e., slips of the tongue/pen), in contrast, arise due to communicative failures such as memory limitations. It is helpful to correct students' errors but not their mistakes (Corder, 1967).

R. Ellis (2009) found fault with Coder's communicative errors proposal that no clear theoretical basis has been provided for it. R. Ellis asserted that the distinction between errors and mistakes is not obvious, as presented by Corder (1967). R. Ellis thought the assessment of the gravity of an error is usually influenced by personal opinion, and is subjective.

Sequenced Input/Feedback and Student Developmental Readiness

In so many cases, input/feedback practices do not appear to be effective. One of the possible factors that seem to influence the effectiveness of input/feedback is the student's developmental readiness (Kennedy, 2010). The literature on developmental readiness suggests that students will be able to grasp complex grammatical elements only when they have learned basic elements (R. Ellis, 2006; Skehan, 1998; Spada & Lightbown, 1999; Rodriguez, 2009). Thus, grammatical elements should be considered as instructional sequences rather than random selection. In the classroom context, when instructors decide to attend to particular grammatical elements they usually apply various strategies for their purpose. Practitioners have suggested several instructional methodologies that can be used to guide instructional sequences. For example, Harris (1998) developed the Small Talk methodology to develop communicative competence. In a Small Talk session, students use their communicative ability in conversation without intervention from the instructor and then receive tailored feedback that targets each student differentially in response to their different self-developed systems.

A line of research (Burt, 1975; Long, 1988; Pienemann, 1998; Skehan, 2002; VanPatten, 2002) promoted the idea that for grammar to be beneficial, it has to be taught in a way that conforms to students' self-developed systems. By dismissing a

predetermined syllabus, task-based instruction is supposed to enable each student to receive input/feedback relevant to his or her actual developmental level, thereby conforming to the natural sequences of development (Skehan, 2002). However, classroom-based instruction simply cannot provide the right conditions for conforming to such natural sequences of development (Swain, 1995). Compensating for the classroom lack of natural conditions involves careful selection and sequencing, proactive syllabus design, and concentrated engagement with a limited range of essential language elements.

Sequent input, embedded in interactions, may be one avenue to align teacher's and student's expectations. The present research study gathered information about the actual developmental levels of participant students. The aim was to assess how effective particular sequent inputs are for individual students.

Culturally Appropriate Communication

The literature on the role of socialization in language learning reveals a variety of perspectives on its contribution to cross-cultural learning. Students develop cultural understandings, attitudes, and performance skills needed to communicate appropriately in the target culture. Theorists hold that language and culture are inseparable because each of them provides support for the development of the other (Mitchell & Myles, 2004). Based on this belief, Nostrand (1970) arranged nine specific objectives for cross-cultural learning in a developmental sequence:

1. The ability to react appropriately in a social situation

2. The ability to describe, or to ascribe to, the proper part of the population a pattern in the culture or social behavior

3. The ability to recognize a pattern when it is illustrated

4. The ability to "explain" a pattern

5. The ability to predict how a pattern is likely to apply in a given situation

6. The ability to describe or manifest an attitude important for making one acceptable in a foreign society

7. The ability to evaluate the form of a statement concerning a culture pattern

8. The ability to describe or demonstrate defensible methods of analyzing a sociocultural whole

9. The ability to identify basic human purposes that make significant the understanding being taught.

The target culture cannot be taught separately; rather it is subsumed in every other communicative activity and is regarded as a tool facilitating many other types of language learning. With the target language embedded in the native speaker's culture, its teaching remains inseparable from teaching native-speaking culture (Alptekin, 2002).

In this study, I used the cross-cultural learning objectives arranged by Nostrand (1970) to assess the level of language proficiency of participants in this study. These objectives were my way of monitoring the culturally appropriate communication of each participant. My goal was to determine and sequence comprehensible language elements for cross-cultural learning.

Instructors' and Students' Perceptions of Input/Feedback

Targeting L2 learners differentially in response to their developmental levels has raised concerns about the need to develop effective input/feedback strategies (Hunter, 2012). This is particularly important because it suggests a correlation between input/feedback and learner-developmental readiness. It is also possible that the

input/feedback strategies currently used do not follow evaluative criteria and revisions necessary for developing communicative competence.

Studies that investigated input/feedback strategies revealed that such practices can be effective when basic linguistic elements are known and connections between meanings and forms are established (Hattie & Timperley, 2007; Hunter, 2012; Van Beuningen, 2010; VanPatten et al., 2004; Wong, 2009). Three of these studies (Hattie & Timperley, 2007; Van Beuningen, 2010; Wong, 2009) were observational in nature and therefore did not consider students actual input/feedback processing. The other two research works (Hunter, 2012; VanPatten et al., 2004) were experimental in nature and therefore did consider the role of the student–instructor interaction in bringing about a balance of speech accuracy and fluency.

The results of extant research indicated that communicative competence is fostered by the input/feedback that is carefully selected and structured to become more comprehensible to students and responds to their developmental levels. Hattie and Timperley (2007) provided an analysis of feedback and reviewed the evidence related to its impact on communicative competence. They concluded that the type of feedback and the way it is given can be differentially effective. A model of feedback (see Figure 3) is proposed to identify the particular circumstances that make it effective.

Purpose
To reduce discrepancies between current understandings/performance and a desired goal

The discrepancy can be reduced by:
Students
- Increased effort and employment of more effective strategies *OR*
- Abandoning, blurring, or lowering the goals

Teachers
- Providing appropriate challenging and specific goals
- Assisting students to reach them through effective learning strategies and feedback

Effective feedback answers three questions

Where am I going? (the goals)	Feed Up
How am I going?	Feed Back
Where to next?	Feed Forward

Each feedback question works at four levels:

Task level	**Process level**	**Self-regulation level**	**Self level**
How well tasks are understood/performed	The main process needed to understand/perform tasks	Self-monitoring, directing, and regulating of actions	Personal evaluations and affect (usually positive) about the learner

Figure 3. Model of feedback.
Source: Reprinted from "The Power of Feedback," by J. Hattie and H. Timperley, 2007, *Review of Educational Research, 77*(1), 81–112. Copyright 2007 by Review of Educational Research.

  In a related study, Van Beuningen (2010) summarized the theoretical arguments underpinning the use of corrective feedback in L2 classrooms. Based on the available empirical evidence, offering students opportunities to notice the gaps in their interlanguage, test interlanguage hypotheses, and engage in metalinguistic reflection, written corrective feedback can foster communicative competence (Van Beuningen, 2010). In support, Wong (2009) found that the active focusing of student attention on meaning and on form to actively process input develops communicative competence. Thus, corrective feedback is implicated in a complicated function of assessment that occurs in the process of coinciding instructors' and students' perceptions. Conflict arising due to differing perceptions may impede communicative competence. In some cases

students tend to follow their own perceptions rather than those of their instructors; instructors, in contrast, implement their pedagogical schemes without being aware of their students' expectations (Nunan, 1995).

In experimental research on instructors' and students' perceptions of L2 acquisition, the term *real teaching* captures the potential for the two perceptions to coincide. Hunter (2012) proposed the concept of real teaching to clarify these potentially opposing perceptions. Real teaching is the language students are striving for at that moment, rather than the syllabus imposed by textbooks, which is disconnected from the needs of the student at best, and completely arbitrary at worst. In other word, real teaching is a new paradigm, an inclusive viewpoint of L2 teaching that explicitly considers both instructor's and student's perceptions (Hunter, 2012).

Hunter's (2012) small-scale study of the corrective feedback potential of Small Talk included a class of 12 intermediate adult students, in which students think through carefully what they want to say. The Small Talk sessions were videotaped, and four of these were randomly selected for analysis. The conversations were transcribed and turns with errors were identified. Hunter was able to catch a portion of each conversation, listening to each group in turn and writing down inaccurate language use, whether it interfered with the communicative flow or not. Hunter then entered each error (typically 15 to 50 per Small Talk session) with the name of the speaker into a computerized database, noting the date of the Small Talk session and the topic (see Figure 4).

*Figure 4.*Worksheet entry form from the database.
Source: Reprinted from "Small Talk," by J. Hunter, 2012, *ELT Journal, 66,* p. 34. ELT Journal.

To facilitate more accurate production, Hunter (2012) provided each student with a printed worksheet of errors along with reformulated versions, as a competent speaker might say them, in the form of an audio recording. Students then listened to this recording to work out where the differences lay. The purpose of giving students written transcripts of their errors along with reformulated versions in the form of audio recordings is to enable them to correct any "slips" they have made, and to push them toward a more stable interlanguage form in cases where there is variability. Hunter concluded that Small Talk is a consistent methodology to analyze and respond to student language, and it appears to target students differentially in response to their self-developed systems.

In a related collection of papers found in the VanPatten et al. (2004) book, researchers addressed whether L2 acquisition is output dependent. The papers examined factors and processes underlying L2 acquisition, and then agreed that output encourages language learners to be better processors of input when they make the initial attempt to establish connections between form and meaning. The authors concluded that the L2 acquisition process is input dependent.

Summary

Analysis of factors that contribute to L2 acquisition has raised concerns about the need for reaching higher levels of communicative competence in adult learners. This is particularly important because it suggests a relationship between higher levels of communicative competence and national economy and security needs in a growing international economy. It is also possible that the instruction methodologies currently used to develop the communicative competence in adult learners do not successfully provide the type of input/feedback necessary to prevent language fossilization.

This review of literature informed about key factors that might result in higher communicative-competence gains. Studies that investigated structured instruction targeting accurate forms of language revealed that such strategies can be effective when carried out with adults, particularly when instructors are aware of the type of knowledge they opt to transfer, rather than the level of knowledge already acquired by students (Locke & Latham, 1990; Van Beuningen, 2010).

Research data from several studies (Ahmadian & Tavakoli, 2011; Gatbonton & Segalowitz, 2005; Lynch & Maclean, 2001; Michel et al., 2007; Robinson, 2001; Skehan, 2009; Skehan & Foster, 1997) pointed out that repeat practice aimed at accelerating

communicative competence produced positive effects. Their data suggested that these effects may have resulted from common features present in these studies: the repetition of carefully chosen speaking topics, the identification of targeted grammatical forms, and the use of activities that offered students opportunities for practice and application of the new grammatical form.

The studies cited above were experimental in nature and therefore did not consider the actual communicative teaching occurring in L2 classrooms. However, this chapter discussed several observational studies (Celce-Murcia, 1991; Larsen-Freeman, 1990; Savignon, 1990; Schmidt, 1991; Swain, 1985; Widdowson, 1990) that considered the interactional role of the teacher in giving priority to meanings rather than to forms with the goal of "encouraging" students' speech fluency. Their findings indicated that during communicative instruction, functional language is the aspect of choice, even though, in contrast with formal structure, it was found to result in language fossilization.

The literature reviewed suggested that the teachers' input/feedback to promote modification of students' output through self-repair would be most effective in accelerating language acquisition, specifically in adult learners. Building on the literature review, the present study provided an opportunity to analyze input/feedback processing and significance of change, if any, in speech accuracy and fluency in intermediate adult students. Moreover, the study is expected to raise language instructors' awareness of ACTFL Proficiency Guidelines as valuable input/feedback specifications to target students differentially in response to their individual developmental levels.

CHAPTER III

METHODOLOGY

Introduction

The purpose of this study was to investigate the effect of SI strategy on students'

communicative competence in an immersion environment and to determine the

usefulness of the input/feedback specifications put into practice by SI's pretest and

posttest assessments. This chapter will present the research methodology, population,

procedure, and instruments that were used in collecting data. The methods of data

analysis and limitations of the study are also addressed.

The data-collection procedure for the study used presession and postsession Small

Talk. The chapter provides information related to the participants in this study, data that

were collected, and how they were analyzed. This chapter includes purpose of the study,

research design, research questions, research setting, participants and protection of

human subjects, instrumentation, and data-collection procedure. Finally, the measures,

analyses of speech accuracy and fluency, and strategy use are explained.

Purpose of the Study

This study tested the SI strategy with a group of adult language learners to

measure its effect on speech accuracy and fluency achievements. The purpose of the

study was to test whether the use of SI strategy offers an effective input/feedback and

results in superior communicative competence compared to traditional communicative

instruction. In traditional communicative teaching, formal-speech accuracy is not a major

concern or a concern at all. Thus, a focus on linguistic form will not lead to speech

fluency (Hunter, 2012). A focus on authentic communication alone will not lead to speech accuracy and complexity.

Speech accuracy and fluency are the variables identified and chosen for this study and were selected after reviewing literature on interlanguage error treatments. Results that answered the research questions suggested that the use of SI feedback led to superior communicative competence. The following design was used to assess the degree to which the SI strategy may influence speech accuracy and fluency in participants.

Research Design

This study used the pretest–posttest control-group design. The pretest–posttest control-group design is a true experimental design (Creswell, 2013). It involves random assignment of participants into two groups. Each individual has an equal probability of being selected, and the sample can be generalized to the larger population. The two groups are also administered a pretest and a posttest, but the intervention is provided only to the experimental group.

In this study, the research design was justified by the use of SI as an input/feedback intervention, used to try to develop students' communicative competence. Hunter (2012) highlighted the limitations of the traditional communicative teaching approach, arguing that the structure of the language is not part of the traditional communicative teaching approach; all that remains in the traditional approach is coaching learners how to get their message across. The focus on authentic communication without corrective feedback will not lead to speech accuracy and complexity. It is therefore essential that the corrective feedback strategy be responsive to the needs of the individual learner (Hunter, 2012).

In the present study, a pretest–posttest experimental design with random assignment to experimental or control groups was used to measure the effect of SI strategy in bringing about a balance of speech accuracy and fluency. Participants were randomly assigned to a group that received the SI feedback (experimental group) or a comparison group that did not receive the SI feedback (control group), as shown in Figure 5. Data for each group were collected before and after the intervention.
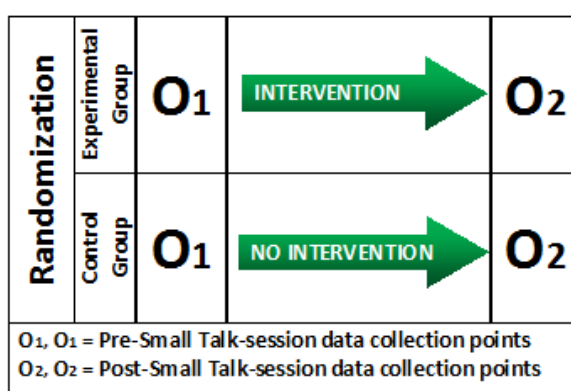
Figure 5. Design of randomized experiment.

My instructional role in this study was to facilitate the immersion class by presenting the Small Talk discussion topic along with task instructions to participant students, assessing each student's language-proficiency level, and providing SI feedback to participants in the experimental group. All activities pertaining to assessment, feedback, and Small Talk sessions were conducted in an immersion environment. Numerical codes were used to identify participants' speech accuracy and fluency scores based on SI strategy.

Participants in both groups ($n = 15$ students per group) were asked to form three smaller subgroups of five students during the pre-Small Talk sessions, and then individuals in the subgroups were randomly assigned into three new subgroups for repeat

practice where they were asked to again discuss the same topic of the pre-Small Talk session in the post=Small Talk session. The 10 instructors, having no role in or responsibility for the conversations, were able to facilitate the Small Talk activity to ensure the discussion remains focused, and allow each participant equal time to get their point across.

At the end of the experiment, differences between the experimental and control groups were attributed to the effect of the intervention. The pretest (pre-Small Talk session) was helpful in assessing participants' individual developmental sublevels in the range of the ACTFL intermediate proficiency level of MSA. This research design was intended to measure the effect of SI feedback on speech accuracy and fluency of participants.

<div align="center">Research Questions</div>

The study specifically attempted to answer the following two research questions:

Research Question 1: Will there be a significant difference in speech-accuracy achievement of intermediate MSA adult students based on the instructional method used (repeat practice with SI feedback versus traditional instruction) to develop communicative competence?

Research Question 2: Will there be a significant difference in speech-fluency achievement of intermediate MSA adult students based on the instructional method used (repeat practice with SI feedback versus traditional instruction) to develop communicative competence?

Research Setting

The study was conducted in the language immersion facility of DLIFLC in Monterey, California. DLIFLC was chosen for my convenience and more importantly, the ability it provided me to conduct the study in the way I discerned was most fitting to produce useful data.

DLIFLC provides resident instruction in 2 dozen languages, 5 days a week, 7 hours per day, with 2 to 3 hours of homework each night. The present facilities at the Presidio of Monterey accommodate approximately 3,500 military students. Courses last between 26 and 64 weeks, depending on the difficulty of the language. Students are taught by more than 2,000 highly educated instructors, 98% of whom are native speakers of the languages they teach. Aside from classroom instruction, faculty also write course materials in the Curriculum Development Division, design versions of the Defense Language Proficiency Test, and conduct research and analysis.

To further advance student knowledge in a particular language, DLIFLC has designed an immersion program that consists of an off-site facility where students spend from 1 to 3 days in an isolated environment with their instructors and are not allowed to speak English. The facility is equipped with kitchens and sleeping quarters; the program consists of real-world language exercises from bargaining for food and clothing at a marketplace, to going through customs, or making hotel reservations (Defense Language Institute Foreign Language Center [DLIFLC], 2013).

The immersion facility of DLIFLC has been designed to create an appropriate environment for groups of students at different proficiency levels, to examine how authentic language is learned and developed. The Arabic language section in the

immersion facility is about 2,400 square feet in area and can accommodate between 30 and 40 people. The section incorporates one multiple-purpose large instruction room surrounded by eight small discussion rooms with computers and recording devices, and there is a small kitchen with cabinet units for placing refreshments. The large instruction room has a high-quality indoor environment to promote language learning and productivity. It also contains a smart board, 10 large study tables, and numerous standard chairs.

The independent variable in the study was the instruction strategy, in this case repeat practice with SI feedback. The control group received traditional communicative instruction with no exposure to SI feedback. The experimental group received the treatment, which was instruction involving repeat practice with SI feedback. The setup of the discussion rooms and materials for all Small Talk sessions were similar during the research study.

Participants

The target population of the study was L2 adult students in the United States. Because it is not possible to gather data from every adult student in the country, a sample of participants was chosen. Convenience sampling was used due to location and my familiarity with the institution that hosted the control and experimental groups. The institute identified for the study was my workplace.

I selected 30 adult students studying MSA at DLIFLC in Monterey California, 15 each for the experimental control groups. This study was conducted in May 2013. Participants study under my tutelage and, thus, were a convenient choice for this study. Predetermined ACTFL proficiency levels, determined by DLIFLC, reveal whether a

student does not meet (mid-intermediate level), meets (mid-intermediate level), or exceeds (mid-intermediate level) the standards for each language skill. For this study, students who did not meet mid-Intermediate level were referred to as low-intermediate, students who are average-achieving were considered mid-intermediate level, and students who are above average were described as high-intermediate in language proficiency. Students in the experimental and control groups were considered together (practicing with SI feedback versus traditional communicative instruction), then were treated and assessed in subgroups, based on existing language-proficiency levels (low-intermediate practice with SI feedback versus low-intermediate traditional communicative instruction, mid-intermediate practice with SI feedback versus mid-intermediate traditional communicative instruction, high-intermediate practice with SI feedback versus high-intermediate traditional communicative instruction) to further analyze the data. Treating individual participants based on proficiency level provided useful knowledge as to effectiveness of use of SI feedback with certain ability levels.

I used Mehnert's (1998) study as a reference for the determination of sample size. Therefore, the total sample size in this study was taken as 30 participants who were divided into two groups with 15 participants in the experimental and 15 participants in the control group. Even though a small sample size does not give high statistical power to a research study, the sample of 15 was considered large enough to get a significant result (Green, Salkind, & Akey, 2000).

The group of participants consisted of both male and female military students of different ethnicities ranging in age from 18 to 28 years. The majority of participants were White males. All participants currently serve in the military as soldiers and officers with

their length of service time varying from 2 years to more than 5 years. Students and 10 of their instructors were drawn from DLIFLC. The 30 students in the study were evenly divided between the two groups of the study (the experimental group and the control group). Data were collected in 4 days of 2-day immersion sessions (with a total of 32 hours). Participants were present from the start to the end of the study. They went as a group to the immersion facility during regular class time.

Students participating in this study were studying MSA at DLIFLC in Monterey, California and were purposively chosen because their ACTFL-intermediate proficiency level had been determined by certified OPI testers. Determining proficiency levels was considered necessary for this study. Communicative competence is fostered by the interactional instruction that structures input/feedback in accordance with the proficiency level of learners to make it more comprehensible (Long, 1996). I assessed these criteria for inclusion; all students were invited to participate because they met the specified criteria.

<div align="center">Protection of Human Subjects</div>

The research proposal was submitted and approved by the Institutional Review Board for the Protection of Human Subjects IRBPHS of the University of San Francisco (USF; see Appendix C). Permission was also obtained from the Institutional Review Board of DLIFLC, Monterey, California to collect the data (see Appendix D). The objectives and procedures of the study were explained to the immersion coordinator and other officials at DLIFLC to ask for their collaboration.

After being enrolled and randomly assigned to the experimental and the control groups, participants were informed of the objectives and procedures of the research study.

Time was spent, and activity was discussed, to ensure full understanding of participants.

Participants were assured of the confidentiality of the results. The data were

electronically saved and then deleted upon completion of the study. Data were treated

anonymously. For the control group, participants were informed they could receive SI

feedback after the data collection was complete. In addition, participants were informed

there was no physical risk involved in participating in this study. They were free to refuse

to participate at any time during the study. In addition, they were informed there would

be no charges for participation and neither would they receive any payment.

<div align="center">Instrumentation</div>

This research study was guided by the works of Mehnert (1998) and Kennedy

(2010). I used a method introduced by Mehnert (1998) to count and record the number of

grammatical errors as well as syllables (pauses or silences) in each utterance, to measure

speech accuracy and fluency of participants. Data were coded to reflect errors, and

student responses to input/feedback. The coding scheme (see Appendix E) used

categories based on Kennedy's (2010) work. These categories were originally designed

for feedback on students' errors of form (e.g., grammatical, lexical, phonological, and use

of first language) and errors of content.

As in Kennedy (2010), the working definition used to identify content errors was,

> The learner produces an utterance or word which is not similar to the target
> utterance or word, though potentially appropriate in other contexts, or the learner
> misunderstands a request or question and answers inappropriately. The inaccuracy
> of the answer is not due to lack of vocabulary or inaccurate word retrieval. (p. 37)

In other words, a content error is a type of error that occurs when the utterance content

deviates from the content directives set for the target utterance element. For lexical errors

of form the working definition used by Kennedy (2010) follows:

> The learner produces a word that is similar to the target word, or a word that is not similar, but whose referent is clearly the same as the target word. If it was not clear whether a speech was in fact inaccurate concerning lexicon or the substance dealt with, the speech was not coded as an error. (p. 37)

For the current study, I adopted this definition because the research focuses on determining whether the use of repeat practice (Small Talk) along with SI feedback has an effect on student communicative competence, as measured through results of an identical pretest and posttest administered to both groups of participants.

Validity and Reliability

To ensure validity of the results from this study, I was careful to use valid and reliable measuring instruments. The validity of a measuring instrument is an essential guarantee of its reliability (Gay & Airasian, 2003). The main variables measured in this study were speech accuracy and fluency. To determine speech accuracy and fluency achievement in intermediate MSA adult students, this research study used pretest–posttest and text typology provided by ACTFL as valid measures for these criteria.

The history and maturation factor was not a threat to validity. The longer a research study lasts, the more likely it will be threatened by history and maturation (Gay & Airasian, 2003). In this study, each of the 12 Small Talk sessions lasted between 15 and 20 minutes and the pretest and posttest were conducted subsequently for 4 days. The relatively short duration of the study helped minimize the threat of history and maturation.

Using a pretest/posttest measurement method allowed me to evaluate communicative-competence gains made among each of the groups after the posttest (post-Small Talk) in the control and experimental groups. The content of the evaluation

was based on proficiency guidelines provided by ACTFL (2012), which are used as OPI-rating criteria.

The content of the pretest and posttest was based on a short activity developed by Kagan Cooperative Learning (see Appendix F). The activity was used during the duration of the study to measure speech accuracy and speech fluency on the basis of the OPI criteria specified in ACTFL (2012) Proficiency Guidelines.

Expert validation was conducted on the pretest and posttest to increase the content-related validity of the instrument, which analyzed whether the repeat practice with SI feedback adequately represented the domain of the variables (speech accuracy and fluency) being measured (McKnight & Najab, 2010). Two certified OPI testers reviewed interlanguage audio recordings from the Small Talk sessions. These OPI reviewers are presently MSA instructors at DLIFLC.

Experimental instrument. I developed the SI strategy based on the ACTFL (2012) Proficiency Guidelines (see Appendix A). The content of the Small Talk and the SI feedback specifications were evaluated and validated by two certified OPI tester from DLIFLC, who were also instructors of MSA. To measure the two variables (speech accuracy and fluency), the SI feedback (or intervention) was selected to address the study's two research questions. The SI strategy is a strategy for deciding which language features to include in instruction as input or corrective feedback moves. The strategy was developed to help L2 teachers think more subtly about the features to be included in input/feedback moves. This can be the difference between input/feedback being effective or ineffective. Moreover, the SI strategy is expected to help language teachers provide input/feedback that will truly develop students' communicative competence.

Description of the Experimental Intervention

Based on the SI strategy, an input/feedback can have three types of elements (or features):

1. *Primary elements*: These are the basic text type features for each ACTFL proficiency level.

2. *Secondary elements*: These language features are not absolutely necessary, but can give students greater knowledge and understanding about a given communication context or situation.

3. *Sequent inputs*: These are the features students do not really expect, but which help them make progress when they receive them.

Primary elements affect students' communicative competence by their exclusion: If they are excluded, the development of communicative competence is impeded. Even when they are included, if no other features are included, students are not particularly knowledgeable and understanding about the given communication context or situation. Using the example at the sentence level (ACTFL-intermediate), the single independent clause is a primary element in the sentence (e.g. *the textbook is in the library*), whereas a sentence without this feature is meaningless.

It is on secondary elements that most speeches are ranked as low, mid, or high. When one assesses one speech against another, and decides what rank is appropriate, instructors are comparing secondary elements. In a sentence, a secondary element might be speech accuracy. The more the speech is accurate, the higher the rank of language proficiency, and vice versa.

Sequent inputs are language features that students do not really expect, but which help them make progress. The inputs in this category are considered "pushes," similar to Krashen's (1994) comprehensible language structure [i+1] that is ready to be acquired. These pushes, however, are key inputs to develop communicative competence. Even if only a few secondary elements are present, the presence of a sequent input is likely to lead to high communicative competence. For the right learner, a coordinating conjunction (for, and, nor, but, or, yet, so) might be a sequent input to help develop a simple sentence into a compound sentence (e.g. *she finished reading the textbook,* and *returned it to the library*). With the development toward a more advanced communicative competence, this tends to be a moving target as sequent inputs then become secondary elements, and then become primary elements. There is also a fourth type of language feature, which are *not relevant* at a given level of proficiency. The higher the proficiency level achieved by a learner by processing some input, the more relevant that input is to that learner at that time.

To use the SI strategy, it can be intuitively introduced in six spiral steps that are repeated as a student's communicative competence develops toward sustainability. Language instructors should follow these steps to sequence input/feedback:

1. Identify the developmental level and all possible elements and features of the input/feedback; do all one can to help students make progress.

2. Classify these features as primary, secondary, sequent, and not relevant.

3. Make sure the input/feedback has all appropriate primary elements. If necessary, the instructor has to eliminate secondary elements so that the

sentence can include primary elements: the development of communicative competence is likely to be impeded if primary elements are not present.

4. Where possible, eliminate features that are not relevant.

5. Look at the sequent features, and think how to include some of them into the input/feedback move. Again if necessary, the instructor has to eliminate some secondary elements, to provide more comprehensible sequent inputs.

6. Select the most appropriate secondary elements to provide, with minimum effort, an effective input/feedback that is not overly confounding for the student.

Procedure

As already mentioned, a randomized pretest–posttest design was used in the present study. The intervention (SI feedback) was used to influence a positive change in communicative competence. The common pretest–posttest design is used to find accurate and reliable ways to capture evidence that change has occurred (Allen & Nimon, 2007).

In this study a pretest (pre-Small Talk activity) was administered to measure the two variables (speech accuracy and fluency), the SI feedback (or intervention) was implemented, and then a posttest (post-Small Talk repeated activity) was administered to again measure the same two variables. The Small Talk sessions were audio recorded for later quantitative analyses to answer the research questions.

This research lasted 4 days in which participants spent between 15 and 20 minutes a day in Small Talk activities for this study. The first 2 days of the research were with the experimental group, and the last 2 days were with the control group. The research design timeline is provided in Table 2.

Table 2

The Research Design Timeline

Intervention group		Control group	
Day/Time	Theme	Day/Time	Theme
Day-1/Noon	Pretest	Day-3/Noon	Pretest
	Intervention		No Intervention
Day-2/Morning	Posttest	Day-4/Morning	Posttest

Note. Pretest = noon Small Talk session; Posttest = morning Small Talk session.

Prior to conducting the study, I obtained permission from the IRBPHS of USF. Once approval was granted, I secured permission from DLIFLC administration to use the DLIFLC immersion facility, teachers, and students for the study. The contact was through office meetings. Furthermore, I met with participating teachers to ensure I understood exactly what type of instruction would be provided for the control and experimental groups of students.

Once approvals were granted, I identified the sample of students that served as participants. As previously mentioned, the participants were all intermediate MSA adult students from DLIFLC. To increase validity, because I am an MSA instructor at DLIFLC, I was not an active teaching participant in the study.

Prior to data collection, the IRBPHS guidelines and procedures of USF were followed and completed. Data collection started as soon as details of sampling were worked out. I contacted the DLIFLC immersion coordinator and received the schedule of intermediate MSA immersion training for the month of May 2013. I then randomly selected 30 students from two MSA classes to participate in the study. I removed names of students and replaced them with numbers to uphold confidentiality.

Language proficiency levels were specified and used to classify students into low-intermediate, mid-intermediate, and high-intermediate. An OPI test predetermined the speaking proficiency levels of the participants, in accordance with ACTFL Proficiency Guidelines.

ACTFL low-intermediate level indicates that students did not meet the average set standards for the intermediate functional level and content area. According to the ACTFL Proficiency Guidelines, at the intermediate level, students performing at low-intermediate level have limited conceptual knowledge of the simple sentence structure. Mid-intermediate level indicates that students did meet the average standards to produce simple sentences, and are able to exhibit adequate knowledge of a compound sentence structure. High-intermediate level indicates that students not only met, but also exceeded the set standards for a compound sentence level and content area. Students at this level showed in-depth understanding of the complex sentence structure set forth in the text typology of ACTFL's intermediate level.

Participating instructors were chosen based on convenience, and their experience. All of them are certified language instructors with 3 or more years of experience teaching MSA, and are accustomed to traditional communicative instruction. The instruction topic and activity chosen for the Small Talk sessions of this research study were adopted from Kagan Cooperative Learning (see Appendix F).

<center>Data Collection</center>

This section includes a detailed description of the data-collection process, which consisted of two stages: preparation and experimentation. First, I describe data collection during the preparation stage, then review the process during the experimentation stage.

Preparation Stage

The preparation stage was subdivided into two phases—predata collection and continuing-preparation process. Data collection was started after the dissertation proposal was approved by the IRBPHS of USF. At the same time, permission was obtained from the IRB of DLIFLC in Monterey, California to collect data. During the second phase of preparation, I informed the MSA immersion coordinator, students, and instructors about the purposes of the research study, the protocol for data collection, and the framework of the study, before collecting demographic data of participating students.

Data-Collection Instruments

A researcher-developed demographic-data form was used to collect the demographic data. The data included details about participants' ages, different learning styles, and language-proficiency levels, indicating their individual developmental sublevels in the range of ACTFL intermediate level. A blank demographic data-collection form is provided in Figure 6.

Experimentation Stage

The intensity of speech inaccuracy was assessed by the OPI scale of ACTFL (2012), which ranges from *low-novice* to *superior*. Low-novice indicates "no accuracy" and superior indicates "best possible accuracy." All participants in this research study were at the ACTFL-intermediate level. The intensity of speech inaccuracy was assessed by tally scores recorded on the speech-inaccuracy collection form (see Figure 7).

Demographic Data Form

Code: ………………..
Date: …………………

1.   Age: ………. Years

   2.   Gender   ⬭ 1 Male   ⬭ 2 Female

  3.   Home location   ⬭ 1 In barracks   ⬭ 2 Off barracks

   4.   Marital status   ⬭ 1 Single   ⬭ 2 Married
                               ⬭ 3 Divorced   ⬭ 4 Widowed

     5.   Race   ⬭ 1 Black   ⬭ 2 White
                               ⬭ 3 Other

  6.   Length of military   ⬭ 1 Between 1 to 3 years   ⬭ 2 Between 3 to 5
          service   ⬭ 3 More than 5 years   years

   7.   Learning style   ⬭ 1 Global   ⬭ 2 Analytical
                               ⬭ 3 Other

 8.   Language proficiency ⬭ 1 Low-Intermediate ⬭ 2 Mid-
          level   ⬭ 3 High-Intermediate   Intermediate

Figure 6. The demographic-data collection form.

Speech Inaccuracy Collection Form		
Code: _____ ☐ Experimental group ☐ Control group		
Date: _____ ☐ Pretest ☐ Posttest		
Type of Error	Tally Count	Score
GRAM		
LEX		
PHONE		
Total Errors		

Figure 7. The speech-inaccuracy data-collection form.
GRAM = Grammatical inaccuracy; LEX = Lexical inaccuracy; PHONE = Phonological inaccuracy.

As shown in Figure 8, the speech-disfluency data-collection form included details about total pausing time, length of run, speech rates (A) and (B). I measured total pausing time, length of run, and speech rates with a stop watch.

Speech Disfluency Data Collection Form		
Code: _____ ☐ Experimental Group ☐ Control Group		
Date: _____ ☐ Pretest ☐ Posttest		
Type of Speech Disfluency	Number Count	Score
Total Pausing Time		
Length of Run		
Speech Rate (A)		
Speech Rate (B)		

Figure 8. The speech-disfluency data-collection form.

The experimentation stage included repeat practice (Small Talk activity) in each of the two groups (the experimental and control groups) provided through the traditional communicative instruction. The only difference existing at this stage was the experimental group received SI feedback in addition to repeat practice, whereas the control group did not receive any SI feedback. The steps and timing of a typical Small Talk activity are shown in Table 3.

Table 3

The Steps and Timing of a Small Talk Activity

Step	Action	Timing
1	The day before the session, I announced the Small Talk topic.	(3–5 minutes)
2	At the beginning of the session, I reintroduced the topic, clarified confusion, and then randomly assigned participants into groups of five and asked them to begin.	(3–5 minutes)
3	Groups discussed the topic and their conversations were audio recorded.	(15–20 minutes)
4	I asked the groups to end their conversations.	(3–5 minutes)
5	After about half an hour I invited each subgroup in the experimental group to receive SI feedback about the highlights of their conversation.	(30–40 minutes)
6	I thanked participants and reminded them of the next day Small Talk session.	(1 minute)

Note. The control group was excluded from Step 5.

The participating teachers, having no active role in or responsibility for the conversations, were able to observe the interactions and afterwards to suggested ways and remind quiet or nonfluent students to get their point across. They also reminded dominating talkers to be patient and to invite others to participate.

The procedure for carrying out the experiment differed due to differences between the experimental group and the control group. The data collection took 4 days, 2 for each group. The study began in the first 2 days with the experimental group, whereas the last 2 days were with the control group.

On the week prior to the immersion practice, potential participants who met the inclusion criteria were asked to participate in the study. I built trust and a good relationship with participants. I explained the objectives, the procedures for conducting the research study, the protection of human rights, and the outcomes of the study. When participants agreed to participate in this study, I gave them a consent form (see Appendix G) to sign, and they filled out the demographic data-collection form. Immediately after the pre-Small Talk session, participants were measured for speech-inaccuracy and speech-disfluency scores. These data were used as a baseline to compare later changes in speech-inaccuracy and speech-disfluency scores.

The control group received traditional communicative instruction similar to the experimental group, except that they were not provided with SI feedback. In traditional communicative instruction, the structure of the language is not discussed; all that remains for instructors is coaching students on how to get their message across (Hunter, 2012). The process of collecting data is shown in Figure 9.

With speech inaccuracy and disfluency measurements collected at the beginning and end of the research study, the effects of SI feedback were revealed by calculating the differences between the two measures. Establishing reliability for SI strategy was done by comparing the difference between pretest and posttest scores given by the researcher to those given by another two certified OPI testers (interraters) after listening to the Small Talk sessions recordings independently. There were no threats to internal validity because no changes existed in the calibration of the SI strategy or in the OPI rating standards.

```
┌──────────────┐                      ┌──────────────┐
│ Experimental │  ◄═══ Research ═══►  │   Control    │
│    Group     │       Protocol       │    Group     │
└──────────────┘                      └──────────────┘
        ▼                                     ▼
┌──────────────┐                      ┌──────────────┐
│    Day-1     │                      │    Day-3     │
│Pre-Small Talk│                      │Pre-Small Talk│
│   session    │                      │   session    │
│ 15-20 minutes│                      │ 15-20 minutes│
└──────────────┘                      └──────────────┘
        ▼          Immediately after the      ▼
┌──────────────┐     Small Talk session  ┌──────────────┐
│ Accuracy and │                      │ Accuracy and │
│  fluency are │                      │  fluency are │
│   measured   │                      │   measured   │
└──────────────┘   After half an hour  └──────────────┘
        ▼                                     ▼
┌──────────────┐                      ┌──────────────┐
│Students      │                      │  Students    │
│received SI   │                      │were reminded │
│feedback, and │                      │of the next   │
│were reminded │                      │ day session  │
│of the next   │                      │              │
└──────────────┘                      └──────────────┘
        ▼                                     ▼
┌──────────────┐                      ┌──────────────┐
│    Day-2     │                      │    Day-4     │
│ Post-Small   │                      │ Post-Small   │
│ Talk session │                      │ Talk session │
│  for 15-20   │                      │  for 15-20   │
└──────────────┘                      └──────────────┘
        ▼          Immediately after the      ▼
┌──────────────┐     Small Talk session  ┌──────────────┐
│Speech accuracy│                     │Speech accuracy│
│and fluency are│                     │and fluency are│
│   measured   │                      │   measured   │
└──────────────┘   After half an hour  └──────────────┘
        ▼                                     ▼
┌─────────────────────────────────────────────────────┐
│ Researcher thanked the participants and completed    │
│           the collection of data                     │
└─────────────────────────────────────────────────────┘
```
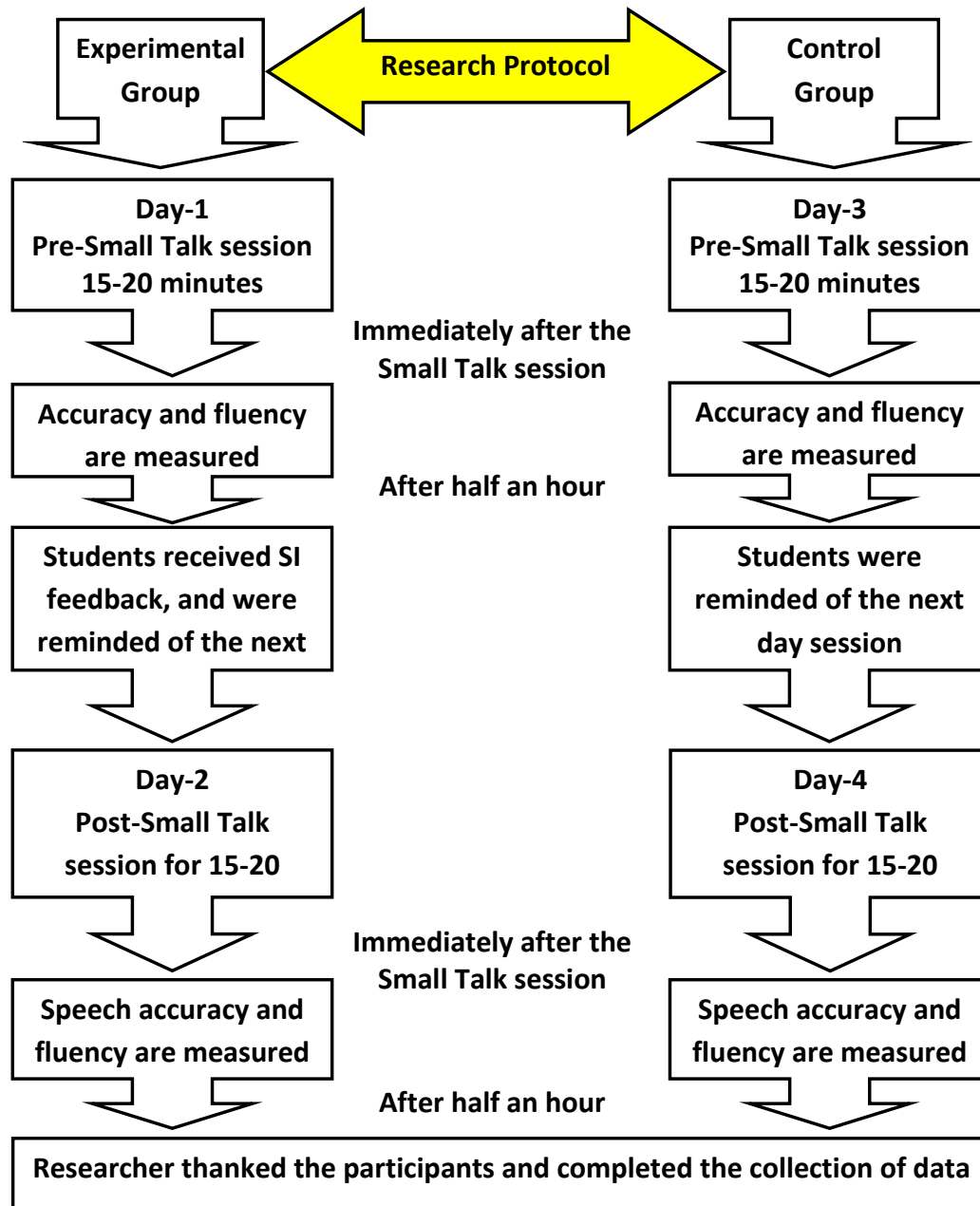
Figure 9. Research protocol.

I was guided by a method used by Mehnert (1998) to count and record the number of grammatical errors as well as syllables (pauses or silences) in each utterance, to measure communicative competence (speech accuracy and fluency) in participants. Exactly as in Mehnert's (1998) study, the percentage of error-free phrases and number of

errors per 100 words were used as general measures of speech accuracy in the present research study.

The analyses included two specific measures used by Mehnert: word order and lexical-choice error. Error analysis to establish number of errors included only syntactical, morphological, and lexical-choice errors. Errors that were repeated (i.e., forms based on wrong assumptions but consistent) were counted only once. Every shift between informal and formal references was counted as an error.

Speech fluency measurement was also guided by Mehnert's (1998) method. It was measured by number of pauses, total pausing time, mean length of run, and speech rate. The mean was taken after the length of all utterances was measured using a stop watch and rounded off to whole seconds. No distinction was made between unfilled pauses and pauses that included fillers such as "*uh*," "*ah*," and "*um*." Number of pauses was calculated by counting the number of pauses in 1 second or more that occurred in the first utterance. The total pausing time was calculated by counting all the pauses and expressing the total as a percentage of the total time used to produce the entire utterance. Mean length of run was determined by adding the syllable between pauses and calculating the mean number of syllables.

The next step was to identify the syllables, words, and phrases that were subsequently repeated with or without adaptation or omitted before windup. This step was followed by counting all syllables uttered and a syllable count excluding all syllables that were repeated. Speech rate (A) was calculated by dividing the number of syllables in an utterance by the time taken to produce them (measured in seconds) and multiplying the result by 60. Speech rate (B) was calculated the same way as speech rate (A), but all

syllables, words, or phrases that were subsequently repeated, reformulated, or replaced were not counted.

Data Analysis

As mentioned, this research study was based on a randomized pretest–posttest control-group design. All conditions were the same for the experimental and control groups, with the exception that the experimental group received SI feedback, whereas the control group did not. The purpose of this study was to compare the performance of intermediate MSA adult students who received SI feedback on speech accuracy and fluency with those who did not receive such feedback on this assessment.

During the study, SI feedback relevant to the Small Talk activity was provided to participants in the experimental group. SI feedback was based on the particular language-proficiency content and criteria provided in ACTFL (2012) Proficiency Guidelines. The control group received traditional communicative instruction and the experimental group received similar instruction including SI feedback. I then recorded posttest scores and data analysis began based on the pretest and posttest scores. A paired *t*-test and a Mann–Whitney *U test* were used to determine if there was a significant difference in pretest scores of the control and experimental groups. The paired *t*-test indicated preexisting group speech-accuracy differences between the entire control group and the entire experimental group. To analyze the second research question, a Mann–Whitney *U* test was used on each of the subgroup pretest scores to determine if there were initial speech-fluency differences based on performance level.

No significant differences resulted between the control and experimental participants. However, initial differences were found between mid-intermediate control

and mid-intermediate experimental participants. Each research question was considered individually to reveal results of the study.

To answer the two research questions, a quantitative data analysis of the pretest and posttest results was conducted. During the data-analysis phase, I used the research questions as guides when evaluating results and drawing conclusions. Each research question was considered individually.

Because the size of the sample was small ($n = 30$), normality tests were performed on the speech-accuracy and -fluency data to determine whether data were normally distributed; speech-fluency data were not normally distributed. Because of the normality issue and to keep testing consistent, even when data were normally distributed, a Mann–Whitney U test, which requires no specific distribution of the population or homogeneity of variance, is recommended to evaluate if there was a significant difference in pretest–posttest speech-fluency scores between the control and experimental group (McKnight & Najab, 2010).

Guided by Mehnert's (1998) study, I transcribed all utterances from the pretest and posttest with pauses indicated so that the mean pause length and the phonation/time ratio could be calculated. Nonverbal fillers such as "*uh*," "*ah*," and "*um*," were transcribed and treated as pauses. After pauses were determined, the phonation/time ratio was calculated by dividing the total time filled with speech (not including silent pauses and nonverbal fillers like "*uh*," "*ah*," and "*um*") by the total time spent speaking (time filled with speech, pauses, and nonverbal fillers). Also, I counted syllables to calculate the mean length of fluent runs. False starts were counted as syllables, but fillers such as "*uh*," "*ah*," and "*um*," were not.

At the beginning of the data analysis, the assumptions of normality and homogeneity of variance for inferential parametric-statistics variables (speech accuracy and fluency) were checked before performing the appropriate statistical analysis. Because those assumptions were not met with regards to speech fluency, a nonparametric statistics analog was used in place of parametric statistics.

Frequency, percentage, mean, and standard deviation were used to describe the participants' demographic data and language proficiency. A chi square test was used to compare the equivalence of the demographic data of the participants in the experimental and control groups.

In addition, the Fisher's exact test and the Monte Carlo technique were used as alternative statistics to undertake analysis of two-by-two contingency tables because expected frequencies were too small. In this study, the first analyzed statistic used was a parametric test for the intensity of speech inaccuracy; the second analyzed statistic used was a nonparametric test used for the intensity of speech disfluency. Normality of the assumption was made for a parametric test, but I found no assumptions for parametric tests, such as normal distribution and homogeneous variance. For that reason, I changed the analysis of the statistics from a parametric to a nonparametric analysis. A paired *t*-test was performed to answer Research Question 1. I used the *t*-test to compare the change in speech-accuracy scores before and after the SI treatment was applied.

To answer Research Question 2, the differences between the two groups were tested by the Mann–Whitney U test. Because of the normality issue and the small size of the sample ($n = 30$), nonparametric assumptions underlying the test remained valid (McKnight & Najab, 2010). For that reason the Mann–Whitney U test was mostly

employed for this type of analysis. In this research study, the Mann–Whitney *U* test was used to determine if there were any statistically significant differences in the speech fluency of intermediate MSA adult students in the experimental and control groups.

Summary

This chapter discussed research methodology, participants, procedures, and instruments that were used in data collection. The methods of data analysis showed it was a quantitative study. All data on the pretest and posttest assessments were collected in accordance with ACTFL Proficiency Guidelines. In the following chapter, I explain that data were collected, and results were analyzed and presented.

Background of the Researcher

My name is Salah Farah, and I am an L2 teacher. I began my career as an instructor of MSA at the DLIFLC in Monterey, California in 2004. My goal is to teach L2 in the classroom in a way that is practical and, to the degree that it can be, fun. My overall aim is to be more of a teacher than a researcher, because my strength lies not so much in producing research but instead in explaining that research in a manner that makes my students actually want to give close and thoughtful attention. Also, the body of research writing on L2 acquisition is much larger relative to demand than the supply of passionate L2 instructors, so I am simply responding to the need for improvement in L2 training.

My primary areas of interest are L2 writing and speaking skills. I am particularly interested in speech accuracy and fluency skills. I do not know of a greater pleasure than researching a subject of interest. It is also an experience you can share with your colleagues and friends. I was drawn to the topic of the study from a professional and

personal perspective. In my professional experience prior to my doctoral work, I worked and continue to work with adult language learners and saw, firsthand, the benefit of sequencing input/feedback to target language students differentially in response to their developmental levels. From a personal perspective, I have held a lifelong interest in the development of students' communicative competence. To understand and reflect on the possible influence of these perspectives on the data collection and analysis in the present study, I used a reflective diary following the Small Talk sessions. This diary helped me become as aware as possible of my own biases.

CHAPTER IV

FINDINGS

Introduction

A randomized pretest–posttest control-group design was used in this study to investigate the effect of SI feedback on speech accuracy and fluency achievements of adult language learners and to determine the usefulness of feedback specifications put into practice by SI strategy. In this chapter I present and discuss the research findings, which were based on 30 participants studying MSA. The results are presented in four parts: demographic characteristics, data analysis, and research questions. The study was guided by two research questions about the intensity of speech inaccuracy and disfluency between and within the two groups, and the results of these research questions are organized, presented, and discussed. In this chapter I explain the results of the study.

Demographic Characteristics and Language-Proficiency Data

Data related to demographic characteristics and language learning of participants is shown in Table 4. The results showed that the majority of participants were men (80%). The mean age of participants in the experimental group was 22.33 years ($SD = 2.89$), and in the control group, it was 23.13 years ($SD = 3.14$). More than half of participants in both groups were White (66.7% in the experimental group and 73.3% in the control group). Most participants in both groups were analytic learners (66.7% in the experimental group and 93.3% in the control group). Most participants in both groups lived off barracks. There were no statistically significant differences in the demographic characteristics between the experimental and control group (see Table 4).

Table 4

Frequency and Percentage of Demographic and Language Proficiency Characteristics

(N = 30)

Characteristics	Experimental (*n* = 15)		Control (*n* = 15)		Total (*n* = 30)		χ²	*p* value
	N	%	*N*	%	*N*	%		
Gender							0.00[a]	1.00
Men	12	80.0	12	80.0	24	80.0		
Women	3	20.0	3	20.0	6	20.0		
Race							0.38[b]	1.00
Black	2	13.3	1	6.7	3	10.0		
White	10	66.7	11	73.3	21	70.0		
Other	3	20.0	3	20.0	6	20.0		
Learning style							3.67[c]	0.16
Global	3	20.0	1	6.7	4	13.3		
Analytical	10	66.7	14	93.3	24	80.0		
Other	2	13.3	0	0.0	2	6.7		
Proficiency level							1.24[c]	0.68
Low–intermediate	5	33.3	5	33.3	10	33.3		
Mid–intermediate	7	46.7	9	60.0	16	53.3		
High–intermediate	3	20.0	1	6.7	4	13.3		

Note. a = chi square; b = Monte Carlo; c = Fisher's exact test.

Data Analysis

Pretest and posttest scores of intermediate MSA adult students were analyzed. Participants were from a junior military college in California who practiced MSA immersion using two different instructional methods for communicative instruction. The two research questions, defined in Chapters 1 and 3, were addressed. Pretest data were tested for normality prior to statistical testing. Some datasets were normally distributed. For this reason, the statistical test performed on the second research question was a Mann–Whitney *U* test. Participants' pretest scores were used to reveal any initial group

differences that may have existed prior to the intervention. The statistical data gathered from the study are shown below each research question.

Research Questions

Research Question 1: Will there be a significant difference in speech-accuracy achievement of intermediate MSA adult students based on the instructional method used (repeat practice with SI feedback versus traditional communicative instruction) to develop communicative competence? This question evaluated the two methods used in the study—repeat practice with SI feedback versus repeat practice with traditional communicative instruction—in reference to speech inaccuracy of participants.

The Intensity of Speech Inaccuracy

The data related to the intensity of speech inaccuracy (mean and standard deviation) before and after the SI feedback in the experimental and control groups, are presented in Table 5. The mean of the intensity of word-order errors with SI feedback in the experimental group dropped from 5.13 to 4.40 in the experimental group and remained the same in the control group at 5.93. ($SD = 0.83$) and 5.93 ($SD = 0.70$) in the control group, whereas the mean of the intensity of word-order error after SI feedback in the experimental group was 4.40 ($SD = 1.06$) and 5.93 ($SD = 0.70$) in the control group. In contrast, the mean of lexical-choice error intensity before SI feedback in the experimental group was 6.07 ($SD = 0.80$) and 6.73 ($SD = 0.70$) in the control group, whereas the mean of the intensity of lexical-choice errors after SI feedback in the experimental group was 5.40 ($SD = 1.06$) and 6.73 ($SD = 0.70$) in the control group. These descriptive statistics are presented in Table 5.

Table 5

Mean and Standard Deviation of the Intensity of Speech Inaccuracy Before and After SI

Feedback in the Experimental and Control Groups

Variables	Experimental ($n = 15$)		Control ($n = 15$)	
	M	*SD*	*M*	*SD*
Word-order errors				
Before	5.13	0.83	5.93	0.70
After	4.40	1.06	5.93	0.70
Lexical-choice errors				
Before	6.07	0.80	6.73	0.70
After	5.40	1.06	6.73	0.70

Note. SI = sequent input; Before = pretest results; After = posttest results.

A comparison of relative change of the intensity of speech inaccuracy between the experimental and control groups is shown in Table 6. The intensity of speech inaccuracy before and after SI feedback was compared by subtracting the intensity of speech inaccuracy after SI feedback from the intensity of speech inaccuracy before SI feedback.

Table 6

Comparison of Relative Change in the Intensity of Speech Inaccuracy Before and After SI

Feedback Between the Experimental and Control Groups as Tested by Paired t-Test

(N = 30)

Mean difference	Experimental		Control		
	D	*SD*	*D*	*SD*	*t*
Word-order errors	0.67	0.49	0.00	0.00	5.29**
Lexical-choice errors	0.73	0.59	0.00	0.00	4.79**

Note: SI = sequent input; **$p < 0.01$; $df = 14$.

In the experimental group, I found that the relative change in intensity of word-order errors was 0.67 ($SD = 0.49$). In the control group, it was 0.00 ($SD = 0.00$). The statistics, using the paired *t*-test, showed there was a significant difference in the relative

change in the intensity of word-order errors between the groups ($t_{14} = 5.29$, $p < .01$; see

Table 6).

A similar comparison was made on lexical-choice errors. I found that the relative

change in the intensity of lexical-choice errors in the experimental and control group was

0.73 ($SD = 0.59$) and 0.00 ($SD = 0.00$) respectively. The paired t-test showed there was a

significant difference in the relative change in the intensity of lexical-choice errors

between the two groups ($t_{14} = 4.79$, $p < .01$; see Table 6).

The data related to the intensity of speech inaccuracy (mean and SD) before and

after SI feedbacks in the experimental group tested by paired t-test is presented in Table

7. The mean of the intensity of speech inaccuracy before and after SI feedback in the

experimental group was 6.07 ($SD = 0.80$) and 5.40 ($SD = 1.06$) respectively.

A statistical analysis of the paired t-test showed a significant difference in the

intensity of speech inaccuracy before and after SI feedback in the experimental group

($t_{14} = 5.29$, $p < .01$). These descriptive statistics are presented in Table 7.

Table 7

Mean and Standard Deviation of the Intensity of Speech Inaccuracy Before and After SI

Feedback in the Experimental Group Tested by Paired t-Test

Variables	Before ($n = 15$)		After ($n = 15$)		Paired t-test
	M	*SD*	*M*	*SD*	
Word-order errors	6.07	0.80	5.40	1.06	5.29**
Lexical-choice errors	5.13	0.83	4.40	1.06	4.79**

Note. SI = sequent input; $p < .01$; $df = 14$.

Research Question 2: Will there be a significant difference in speech-fluency

achievement of intermediate MSA adult students based on the instructional method used

(repeat practice with SI feedback versus traditional communicative instruction) to

develop communicative competence? This question evaluated the two methods used in the study—repeat practice with SI feedback versus repeat practice with traditional instruction—in reference to speech disfluency in participants.

<div align="center">*The Intensity of Speech Disfluency*</div>

The intensity of speech disfluency in the experimental and control groups, measured before and after SI feedback, includes total pausing time, length of run, and speech rates. There was no significant difference in the intensity of speech disfluency between the two groups. The descriptive statistical results of the Mann–Whitney *U* test are shown below.

The results of the Mann–Whitney *U* test show no initial group differences in the total pausing time when comparing control-group participants to experimental-group participants. These descriptive statistical results are shown in Table 8.

Table 8

The Mean Rank of the Total Pausing Time Before and After SI Feedback of the Experimental and Control Groups as Tested by Mann–Whitney U test (N = 30)

Total pausing time	Experimental (*n* = 15)	Control (*n* = 15)	z	*p* value
Before	14.37	16.63	-0.71	.48
After	13.77	17.23	-1.08	.28

Note. SI = sequent input; Total pausing time = percentage of the total time taken to produce the text.

The results of the Mann–Whitney *U* test show no initial group differences in the length of run when comparing control-group participants to experimental-group participants. These descriptive statistical results are shown in Tables 9.

Table 9

The Mean Rank of the Length of Run Before and After SI Feedbacks of the Experimental

and Control Group as Tested by Mann–Whitney U Test (N = 30)

Length of run	Experimental (*n* = 15)	Control (*n* = 15)	*z*	*p* value
Before	17.13	13.87	-0.03	.30
After	17.17	13.83	-1.04	.30

Note. SI = sequent input; Length of run is measured in seconds.

The results of the Mann–Whitney *U* test show no initial group differences in the speech rate (A) when comparing control-group participants to experimental-group participants. These descriptive statistical results are shown in Tables 10.

Table 10

The Mean Rank of the Speech Rate (A) Before and After SI Feedbacks of the

Experimental and Control Group as Tested by Mann–Whitney U Test (N = 30)

Speech rate (A)	Experimental (*n* = 15)	Control (*n* = 15)	*z*	*p* value
Before	18.13	12.87	-1.646	.10
After	18.10	12.90	-1.626	.10

Note. SI = sequent input; Speech rate (A) = total syllables divided by the time taken to produce the text.

The results of the Mann–Whitney *U* test show no initial group differences in the speech rate (B) when comparing control-group participants to experimental-group participants. These descriptive statistical results are shown in Tables 11.

Table 11

The Mean Rank of the Speech Rate (B) Before and After SI Feedbacks of the

Experimental and Control Group as Tested by Mann–Whitney U Test (N = 30)

Speech rate (B)	Experimental (*n* = 15)	Control (*n* = 15)	*z*	*p* value
Before	16.03	14.97	-0.339	.73
After	15.93	15.07	-0.276	.78

Note. SI = sequent input; Repeated or reformulated syllables, words, or phrases are not counted.

Summary

In summary, the SI feedback helped members of the experimental group decrease their speech-inaccuracy intensity more significantly than participants in the control group who only received traditional communicative instruction during the research study. The SI feedback also helped participants in controlling their speech-inaccuracy intensity, which did not lead to change in the disfluency intensity after the intervention.

CHAPTER V

SUMMARY, DISCUSSION, CONCLUSIONS, IMPLICATIONS, AND

RECOMMENDATIONS

Introduction

The purpose of this study was to investigate the effects of SI strategy on

participants' communicative competence, and to determine the usefulness of the feedback

specifications put into practice by SI's pretest and posttest assessments. The study

examined the effect of SI feedback on communicative competence (speech accuracy and

fluency achievements) of intermediate MSA adult students. The results reported in the

Chapter 4 indicated that the SI strategy significantly affected participants' communicative

competence. These results offer insight as to how to interpret and use some SI features.

Summary

This section will be divided into subsections including an overview and the

answers to the research questions. The section will also include the strengths and

limitations of the study.

Overview

Over time, L2 education has changed, as policymakers and academics strive to

produce more individuals with proper L2 expertise to work on important national-

security and foreign-policy issues. A common view is that there is a mismatch between

current L2 training and national economic and security need. Academics play a critical

role in answering this call for improvement by the way they provide L2 instruction and

information to students.

The review of literature revealed that academics are aware of factors that contribute to L2 communicative competence and explore what types of instruction methodologies influence learners' performance. One of the factors that are likely to influence the effectiveness of instruction methodologies is the student's developmental level (Ammar & Spada, 2006; Havranek & Cesnik, 2001; Mackey & Philip, 1998). In other words, a strategy that may be effective for an individual learner may not prove successful for another learner. Furthermore, a strategy that produces positive results with a particular learner may not have the same effect on other learners. Here I assert that effective strategy has to follow a set of specifications that represent basic criteria for the development of communicative competence.

This experimental research study was designed to investigate the effect of SI feedback on communicative competence in students, and to determine the usefulness of the input/feedback specifications put into practice by SI's pretest and posttest assessments. I randomly selected 30 participants for this study, 15 for the experimental and 15 for the control group. All participants were military personnel and were randomly assigned. The majority of participants in both groups maintained an ACTFL mid-intermediate language-proficiency level.

Frequency, percentage, mean, and standard deviation were used to describe participants' demographic data. A chi square test was used to compare the equivalence of the demographic data of participants in the experimental and control groups. In addition, the Fisher's exact test and the Monte Carlo technique were used as alternative statistical tools to undertake analysis of two-by-two contingency tables when expected frequencies

were too small. Detailed data representing participants' demographic characteristics are summarized in Table 4.

The Answers to the Research Questions

The broad research question, "How does one develop communicative competence?" was posited to investigate the effects of SI feedback on speech performance. The research study was concerned with two research questions:

Research Question 1: Will there be a significant difference in speech-accuracy achievement of intermediate MSA adult students based on the instructional method used (repeat practice with SI feedback versus traditional communicative instruction) to develop communicative competence?

Speech-inaccuracy results of the experimental group (participants receiving SI feedback) showed statistically significant differences in the intensity of speech inaccuracy before and after the SI feedback. Results were similar to those of previous studies (Foster & Skehan, 1996; Mehnert, 1998). These results may be due to the fact that the error pattern was intense during the pre-Small Talk sessions, and then decreased continuously during the postsessions because participants gained experience from repetitious practice discussing the same topic as in previous sessions and planned accordingly for their postsessions (Foster & Skehan, 1996; Mehnert, 1998). Therefore, time for planning proved to strengthen the accuracy skill that in turn helped participants in the control group reduce the intensity of speech inaccuracy during the post-Small Talk sessions. The intensity of speech inaccuracy in the experimental group was significantly lower than that of the control group because the experimental group received SI feedback whereas the control group did not receive SI feedback.

Regarding the intensity of speech inaccuracy in the control and experimental groups, participants who received SI feedback had a lower mean difference in error scores than those who did not receive SI feedback. Participants receiving SI feedback showed a significant difference in the intensity of speech inaccuracy (see Table 6). Thus, this study further supported that the SI strategy can reduce errors, consistent with the findings of the study of other individualized error treatments, such as a learner-driven syllabus (Hunter, 2012) and error categorizations (Bitchener, 2008).

Research Question 2: Will there be a significant difference in speech-fluency achievement of intermediate MSA adult students based on the instructional method used (repeat practice with SI feedback versus traditional communicative instruction) to develop communicative competence?

Overall, results from this research study showed that there was no significant difference between the two groups in the intensity of speech disfluency after the intervention. Speech disfluency included total pausing time, length of run, and speech rates. They were measured before and after SI feedbacks (see Tables 8, 9, 10, and 11). Thus, the study found no relationship between SI feedback and fluency in participants.

The speech-disfluency results from this study, including total pausing time, length of run, and speech rates, were not similar to those found in previous studies. Previous studies (e.g., De Jong, & Perfetti, 2011; Ferman, Olshtain, Schechtman, & Karni, 2009) reported that repeat practice developed speech fluency. Gatbonton and Segalowitz (2005) also argued that when students had structured error treatment, the low level of the intensity of speech inaccuracy triggered automaticity which, in turn, stimulated speech fluency, although they reported no data that supported this argument.

Strengths and Limitations

In the present study, there was no difference in the demographic data of the control and experimental groups. Despite this strength, the study had several limitations. First, some participants in the experimental group were overwhelmed by the Small Talk practice and could not concentrate fully when receiving SI feedback. Therefore, the assessed intensity of speech inaccuracy might not represent the real intensity of participants' speech inaccuracy. Second, the number of participants in this study was small, 15 participants per group. Therefore, the results from this study cannot be generalized to other groups of learners producing comparable interlanguage errors. Thus, the effect of SI feedback on reducing the intensity of speech inaccuracy and speech disfluency calls for further exploration.

There are many factors that can affect change in speech inaccuracy and disfluency achievements of students, which are limitations to this study. Only some of these factors are within the control of the language instructor: Environmental factors such as availability of resources outside the classroom and students' motivational levels play a role in students' speech performance, but are variables that cannot be controlled by instructors. Factors related to performance such as instructional strategies, classroom management, instructor attitude toward students and performance, and years of experience can all impact students positively and negatively. Factors such as program management and guidance, and adequate supplies and facilities relate to the classroom atmosphere, but not directly to instructors. It can be difficult to conclude if there is a particular one that had the most impact or can be determined as the cause of the change.

The sample chosen could have been a limitation to the study. This study was limited to intermediate MSA adult students from DLIFLC. Though the number of participants produced a representative sample of the local population, it may not accurately represent intermediate-proficiency level students from other schools of DLIFLC. In addition, to make generalizations about language students, other proficiency levels would need to have been represented in the sample. A much larger sample would be needed to fully support the findings.

Other limitations to the study could have been the duration of the study and the traditional communicative approach used for instruction. The duration of the study could limit it, as more time may have yielded a better representation of the effectiveness of use of repeat practice with SI feedback. For the traditional communicative approach, the quality of instruction used in the study could also be a limitation, as some traditional communicative approaches may be more useful and effective than others.

The focus of this study was to determine if the use of a particular communicative instructional method affected student speech performance, based on proficiency levels. Although the instructional method may have played a large role in any change that may have occurred, many other factors that cannot necessarily be measured can lead to student speech accuracy and fluency achievements. Learning styles play a significant part in speech accuracy and fluency achievements of students. Learning=style differences or similarities between the control and experimental group could have been a factor.

Additional specific threats to the internal and external validity of this research study included maturation and selection threat due to nonequivalent groups (Gay & Airasian, 2003). Though these threats cannot be completely eliminated, the study was

designed to minimize these threats. Internal threats of concern included maturation and selection threat due to nonequivalent groups. Maturation likely occurred as participants underwent physical and psychological changes during the research period (Gay & Airasian, 2003). In addition, participants may have matured intellectually through remediation and additional feedback during the period between the 2 days of the study. Although uncontrollable, the treatment occurred and data were collected in a limited amount of time to reduce the number of developmental changes participating students may have undergone during the study to help lessen the maturation threat. A period of 2 days with each group was needed for me to properly perform assessments. Furthermore, a control group consisting of students of the same age was used.

The use of nonequivalent groups posed a threat because there was a possibility that group differences on the posttest are the result of preexisting differences rather than the treatment (Gay & Airasian, 2003). To minimize this threat, similar populations of students were used for the control and experimental groups. In addition, pretest data were collected and a Mann–Whitney U test was used to determine if there were initial differences between the two groups.

In summary, the findings from this research study have important implications for the communicative language-instruction practice despite the above limitations. Language instructors can combine the SI method with traditional communicative instruction to develop communicative competence in students. This study aimed to examine whether SI feedback would result in improved communicative competence for intermediate MSA adult students. Because this intervention was successful, it could be adopted in similar language courses to assist students to develop communicative competence.

Discussion

This experimental study was guided by two research question. After the initial Small Talk sessions, the experimental group was given SI feedback whereas the control group received no feedback from me. On one hand, participants receiving SI feedback had lower mean differences in error scores than did those in control group. On the other hand, there was no statistically significant difference between the two groups in the speech-fluency achievements on the posttest (post-Small Talk sessions).

These findings indicate that SI feedback strengthened speech accuracy in participants that, in turn, helped them focus on reducing the intensity of error during post-Small Talk sessions. Thus, the intensity of speech disfluency was controlled and has not changed, neither increased nor decreased, before or after intervention.

The speech-fluency achievements included the total pausing time, length of run, speech rate (A), and speech rate (B). These achievements were measured before and after SI feedback (Tables 8, 9, 10, and 11). No change in speech disfluency would imply that the design of SI strategy would find a way of helping language learners achieve more speech fluency in a shorter period of time.

With regard to speech accuracy, the significant difference between pretest and posttest results indicated that SI feedback had a significant effect on experimental participants' performance. In other words, the SI strategy and students' speech performance are all functioning very well. This is true because participants performed poorly at the pre-Small Talk sessions on the same discussion topic.

In general, findings indicated that participants who received SI feedback before the repeat practice performed significantly better than those who did not receive SI

feedback. One explanation for the higher speech performance by the SI group versus the control group was that each participant in the experimental group received sequenced input/feedback commensurate with his or her individual needs, according to developmental level of proficiency.

Even though the findings of this research study support previous studies (e.g., Hunter, 2012; Mehnert, 1998; Riggenbach, 1991; Skehan & Foster, 1997) of higher speech accuracy at the expense of fluency, this study differs with other previous studies (Gatbonton & Segalowitz, 2005; Lynch & Maclean, 2001) that showed higher speech fluency is associated with increased familiarity with language through repeat practice.

Prior research studies (Gatbonton & Segalowitz, 2005; Lynch & Maclean, 2001; Riggenbach, 1991) revealed mixed findings in the effectiveness of using repeat practice to foster students' communicative competence. Two of these studies showed a direct relationship between repeat practice and speech performance in traditional communicative teaching classrooms.

Lynch and Maclean (2001), in their study of the effects of repeat practice on speech performance, found that learners' fluency, grammar, phonology, and lexical access and selection were developed with repetition and responses to classmates' questions. In the Gatbonton and Segalowitz (2005) study, repetition improved speech fluency for L2 learners who were in traditional communicative teaching classrooms; the authors suggested that instructors do not provide the repetition necessary for learners to achieve automatic fluency. Lynch and Maclean (2001) found a positive correlation between the use of repeat practice and speech accuracy and fluency achievements. Gatbonton and Segalowitz (2005) maintained that participants who were exposed to

repeat practice also showed greater speech fluency than peers who were not exposed to repeat practice.

The major difference between the current study and previous studies (Gatbonton & Segalowitz, 2005; Lynch & Maclean, 2001) is that the previous studies took place in a classroom environment where instructor's assistance was used as a supplement to traditional communicative teaching, whereas the current study was conducted in an immersion environment and the SI strategy was the primary source of input/feedback.

It is possible that, in these two studies (Gatbonton & Segalowitz, 2005; Lynch & Maclean, 2001), the assistance of the instructor in the classroom kept students on task and provided instant feedback, thereby helping students achieve more speech fluency in a shorter period of time. In contrast, in the immersion environment of the present study, students would only receive delayed feedback when linguistic problems arose. Therefore, comparing previous studies and this study, it would appear that the repeat practice with SI feedback correlates to higher speech-fluency achievement when SI is integrated with other methodologies, for example, in a traditional communicative classroom environment.

Other research findings are considered contradictory to the findings of the Gatbonton and Segalowitz (2005) and Lynch and Maclean (2001) studies. Riggenbach's (1991) findings indicated that repeat practice may not be the answer to improving communicative instruction and student communicative competence. Riggenbach presented evidence that repeat practice could decrease speech inaccuracy which, in turn, did not show any significant difference in speech disfluency between the control and experimental group. The result was not surprising, given that fluency is likely to be

partially context dependent. Based on Riggenbach's (1991) findings, it is unlikely to develop speech fluency equally for everyone in a shorter period of time through repeat practice with SI feedback. This may explain the findings of the present study in speech fluency.

When considering the groups as a whole, experimental versus control, there were students of various speech-performance levels in the present study. With past studies, the uses of repeat-practice approaches had different effects on speech performance, depending on the type of student involved in the study. Repeat practice may be useful for individual students, as many students in the two group showed positive gain between pretest and posttest scores, possibly due to the exposure they had to repeat practice. The result of no significant difference in posttest scores referred to a comparison of whole groups and could be explained by various existing proficiency levels that were represented in each group.

The results of this study also implied that one instruction strategy was not better than the other in teaching students of various proficiency levels (low-intermediate, mid-intermediate, and high-intermediate). Although the use of SI feedback may be beneficial for some students, results from the study did not show a significant difference in overall achievement of the experimental group who received this type of instruction. As mentioned previously, with low and mid-intermediate students, repeat practice with SI feedback has proven to be both effective and a possible hindrance in speech performance and achievement.

The no significant differences in speech disfluency of participants in the control versus the experimental group may have been a result of the quality and type of the

traditional communicative instruction used in this study. Particular types of communicative instruction may have served participants best, depending on the area in which they struggle cognitively. For instance, if a student struggles with comprehension and reasoning, particular instruction may not make a difference in their performance because it does not address the weakness in their learning.

Conclusion

Repeat practice mixed with SI feedback could help language learners decrease the intensity of their speech inaccuracy. However, decreasing the intensity of speech inaccuracy with SI feedback may not lead to change in the intensity of speech disfluency. As derived in a study published by Mackey, Polio, and McDonough in 2004, which indicated that a mixed approach to communicative instruction may lend the greatest benefit, the results of the present study support this idea of differentiation.

All language learners have different needs to maximize their communicative competence, and one type of instruction can be as effective as another. The speaking topic, time frame, type of student being trained, and final learning objectives can all be factors that play a role in student communicative competence. Mixing multiple approaches of communicative instruction reaches more students and makes instruction more effective.

Through the individual's developmental level, SI strategy combined with repeat practice guaranteed that students were presented with information they were ready to learn. Hence, this result means SI-feedback specifications were effective in assessing and providing language-learning paths for participants. It also means that targeting language

learners differentially in response to their developmental levels leads to developed communicative competence.

Hattie and Timperley (2007) described analyzing and responding to student language as the dominant influence on the way a student processes inputs. In their view, targeting students differentially in response to their individual developmental levels is a process of assessing and specifying the kind of information one expects a student to know and perform.

The main set of SI feedback specifications used in the present study to facilitate communicative competence was the text typology of the ACTFL-intermediate-proficiency level, which is known as the sentence level. There was a significant and positive relationship between SI feedback specifications and speech accuracy. The results showed that ACTFL text types are predictors of communicative competence when learning with SI strategy. This would mean that students improved their communicative competence between the pretest and posttest assessments, thanks to the SI feedback specifications. Accordingly, it can be said that communicative language instructors could use ACTFL text types to guide students' performance.

In summary, the results from this study showed that students in the experimental group made greater improvement in communicative competence than those in the control group. The inclusion of SI feedback specifications in instruction was superior to the traditional communicative teaching approach.

<div align="center">Implications</div>

Communicative competence has been and continues to be a focus area in U.S. L2 training that is held to a high standard and is pinpointed in national security and

economic welfare in a growing international economy. With increased demand on language instructors and administrators to provide high-quality instruction in communicative language, this study shows that the SI strategy may be necessary to be most effective with L2 learners.

With the new demands of high-quality L2 training, the job of all instructors will become more challenging, especially for communicative language. It will be even more critical for instructors to find teaching approaches and instruction methodologies that develop communicative competence in students. Research in communicative teaching must continue for instructors to gain insight into effective teaching methodologies.

The results from this research study show there is no single effective strategy in communicative instruction in an immersion environment. Therefore, the sequenced input/feedback approach must be implemented to provide the greatest achievement for today's L2 learners. Increasing numbers of learners at many different proficiency levels will have various learning styles. From the results of this study, L2 instructors can discern that one particular instructional approach is not the answer to develop communicative competence.

Research studies (e.g., Bitchener, 2008; Guenette, 2007; Harley et al., 1990; Hunter, 2012; Mackey et al., 2004; Scheffler, 2008) have concluded that for student communicative competence to improve, a substantial change must occur in L2 teaching. As L2 training administrators and instructors consider changes to develop communicative competence in students, results such as those provided by this study can be informative in the decision-making process.

This study provides competent empirical evidence and increases awareness among L2 instructors for the use of ACTFL Proficiency Guidelines as complementary input/feedback specifications to develop communicative competence. The ACTFL text typology is expected to help L2 instructors determine explicitly what students need to demonstrate communicative competence. This study contributes to the existing body of knowledge by identifying whether SI is a viable strategy to develop communicative competence; and by providing instructors with insights on appropriate input/feedback specifications to teach languages.

ACTFL (2012) recognized the significance of improvement and expansion of the teaching and learning of all languages at all levels of instruction. Although the value of ACTFL Proficiency Guidelines has long been recognized in major language institutions such as the DLIFLC in California, heated debates continue about how input/feedback should be provided to students. This issue is not limited to DLIFLC, but is one of the most debated issues in the field of communicative teaching. Some theorists approve an input/feedback that focuses on grammatical form (Schmidt, 2001), whereas others prefer to emphasize meaning (Krashen 1982). This study recognized the need to bring about a balance of meaning and form in interlanguage.

In summary, the SI strategy should be included in communicative language training to allow instructors to better serve students. Thus, it can be combined with pedagogical strategy to have more positive effect on communication impairment. This study provided evidence of the positive effect of SI feedback on communicative competence in adult MSA students who have experienced communication impediment. However, the results of this study cannot be extended to all such students because the

numbers of participants studied were too limited. Any future study on the effect of SI feedback on communicative competence should be conducted with more participants, thereby reducing the occurrence of bias.

Recommendations to the Profession

The findings from this study have important implications for L2-acquisition profession despite the previously mentioned limitations. Communicative instructors can combine the SI strategy with the traditional communicative teaching approach to more positively affect communication impairment. The SI strategy should be included in the communicative teaching curriculum to teach student teachers how to use it to reduce interlanguage errors and develop communicative competence. It could also be included in professional training workshops for in-service L2 teachers.

Recommendations for Future Research

There are a few recommendations for future research on using SI strategy as communicative teaching tool. First, a larger sample should be used to represent all ACTFL proficiency levels. Other proficiency levels should be considered, and a greater number of participants should be used to be able to generalize findings. Furthermore, inclusion of many languages in a study would give better insight into the effectiveness of the use of the SI strategy. In addition to a larger sample, a greater duration of study could also be beneficial, as more SI input/feedback would be provided during a longer period of time. This could help identify if the effectiveness of SI strategy as a teaching tool is more helpful when teaching certain language knowledge over a longer period of time.

The above general recommendations for further research are based on the findings from this study. To clarify them directly and simply, they are detailed bullets below:

- To validate the findings of this study further, future studies should replicate this study in a controlled environment and with a larger sample and in other introductory language courses.

- Additional research should be conducted comparing SI with other input/feedback methodologies. In part, such studies would add to what is known about the effect of structured input/feedback on communicative competence while providing insight to the knowledge base about the role of SI input/feedback strategy in language teaching and learning.

- To clarify the role of instructors in developing communicative competence, this study should be replicated in a controlled environment with and without instructors' instant feedback. The findings of such a study would provide insight to the role of instructor in developing communicative competence.

- This study did not consider the role students' learning style plays in immersion-learning environments. As a result, a study that examines the effect of learning style on communicative competence in immersion environments would provide a stronger model for predicting and thus developing communicative competence.

- Because this study supports previous research evidence of communicative competence achievement shown in the review of literature, there should be a study to compare the achievement level of a class taught with SI strategy and another class taught without SI strategy in an immersion environment. Such a study would not only show whether there is achievement, but the level of achievement.

- Because instructors' interruption has been shown to affect speech performance in the traditional communicative classroom, a study on the effect of instructors' interruption on the development of communicative competence in an immersion environment using SI strategy is also recommended.

In summary, the results of this study revealed that the SI strategy could develop communicative competence in students. In addition, the findings suggest important topics for conducting further research on the use of the ACTFL text typology as SI input/feedback specifications to develop communicative competence, as no such studies have been conducted in the field of communicative teaching. Additional studies should be carried out with different language skills and developmental levels to confirm the actual benefits of the SI strategy.

Concluding Thoughts

Calls for language instruction to become more efficient and more successful are not exclusively modern exhortations. In 1967 Gold, a mathematician, spoke of the need for a strategy whereby "teachers present the student with both grammatical and ungrammatical strings instead of grammatical sentences only." Three years later, in 1970, linguists R. Brown and Hanlon published a research paper addressing how adults respond to deviant utterances produced by child first-language learners. They found that both grammatical and ungrammatical utterances received approval in about the same ratio. They presented further evidence that approvals were primarily linked with the truth value of the child's proposition, not the syntactic form. This view would indicate that current disquiets are longstanding.

There should be reflection on communicative teaching practice. Reflection on teaching and how to improve student communicative competence should be important aspects of every language teacher's work. The aim of improving student communicative competence invites the question of the extent to which new teaching strategies aid this process. This seems a fair question to be raised, particularly because the typical teaching plan is not always efficient and often does not consider individual aptitude and interest. Any new teaching strategy, to be effective, must improve the teaching and the learning experience.

My review of recent developments in research on L2 acquisition has identified a number of important issues that merit further consideration. There is growing professional disquiet about excessive use of the traditional communicative teaching method as the exclusive means of L2 acquisition. There is also recognition that the traditional communicative teaching strategies have served the interests of teachers more than they have served the interests of students. Generally speaking the learning needs of students have not been sufficiently acknowledged in L2 classrooms. These issues require reflection on a personal level regarding one's own practice and one's commitment to student learning.

REFERENCES

Ahmadian, M. J., & Tavakoli, M. (2011). The effects of simultaneous use of careful online planning and task repetition on accuracy, complexity, and fluency in EFL learners' oral production. *Language Teaching Research, 15,* 35–59. doi:10.1177 /1362168810383329

Allen, J. M., & Nimon, K. (2007). Retrospective pretest: A practical technique for professional development evaluation. *Journal of Industrial Teacher Education, 44*(3), 27–42. Retrieved from http://scholar.lib.vt.edu/ejournals/JITE/v44n3/pdf /allen.pdf

Alptekin, C. (2002). Towards intercultural communicative competence in ELT. *ELT Journal, 56,* 57–64. doi:10.1093/elt/56.1.57

American Council on the Teaching of Foreign Languages. (2012). *Proficiency guidelines*. Retrieved from http://www.actfl.org/publications/guidelines-and-manuals/actfl -proficiency-guidelines-2012

Ammar, A., & Spada, N. (2006). One size fits all? Recasts, prompts, and L2 learning. *Studies in Second Language Acquisition, 28,* 543–574. doi:10.1017 /S0272263106060268

Bitchener, J. (2008). Evidence in support of written corrective feedback. *Journal of Second Language Writing, 17,* 101–118. doi:10.1016/j.jslw.2007.11.004

Breiner-Sanders, K. E., Lowe, P., Miles, J., & Swender, E. (2000). ACTFL Proficiency Guidelines—Speaking: Revised 1999. *Foreign Language Annals, 33,* 13–18. doi: 10.1111/j.1944-9720.2000.tb00885.x

Brown, H. D. (2000). *Principles of language learning and teaching.* New York, NY: Longman.

Brown, R., & Hanlon, C. (1970). Derivational complexity and the order of acquisition in child speech. In J. R. Hayes (Ed.), *Cognition and the development of language* (pp. 37–46). New York, NY: John Wiley & Sons.

Brumfit, C. J. (1984). *Communicative methodology in language teaching: The roles of accuracy and fluency*. Cambridge, England: Cambridge University Press.

Burt, M. (1975). Error analysis in the adult ESL classroom. *TESOL Quarterly, 9,* 53–63. doi:10.2307/3586012

Celce-Murcia, M. (1991). Language and communication: A time for equilibrium and integration. In J. E. Alatis (Ed.), *Georgetown University round table on language and linguistics 1991* (pp. 223–237). Washington, DC: Georgetown University Press.

Chamot, A. U. (2005). Language learning strategy instruction: Current issues and research. *Annual Review of Applied Linguistics, 25,* 112–130. doi:10.1017 /S0267190505000061

Chandler, J. (2003). The efficacy of various kinds of error feedback for improvement in the accuracy and fluency of L2 student writing. *Journal of Second Language Writing, 12,* 267–296. doi:10.1016/S1060-3743(03)00038-9

Corder, S. P. (1967). The significance of learner errors. *International Review of Applied Linguistics, 5*(4), 161–169.

Corder, S. P. (1973). *Introducing applied linguistics*. Middlesex, UK: Penguin.

Cornett, C., (1983). *What you should know about teaching and learning styles*. Bloomington, IN: Phi Delta Kappa.

Creswell, J. W. (2013). *Research design: Qualitative, quantitative, and mixed methods approaches*. Thousand oaks, CA: Sage.

Defense Language Institute Foreign Language Center. (2013). *About DLIFLC*. Retrieved from http://www.dliflc.edu/about.html

De Jong, N., & Perfetti, C. A. (2011). Fluency training in the ESL classroom: An experimental study of fluency development and proceduralization. *Language Learning, 61,* 533–568. doi:10.1111/j.1467-9922.2010.00620.x

DeKeyser, R. (1998). Beyond focus on form: Cognitive perspectives on learning and practicing second language grammar. In C. Doughty & J. Williams (Eds.), *Focus on form in classroom second language acquisition* (pp. 42–63). Cambridge, UK: Cambridge University Press.

Dupuy, B. C. (2000). Content-based instruction: Can it help ease the transition from beginning to advanced foreign language classes? *Foreign Language Annals, 33,* 205–223. doi:10.1111/j.1944-9720.2000.tb00913.x

Ellis, N. (2005). At the interface: Dynamic interactions of explicit and implicit language knowledge. *Studies in Second Language Acquisition, 27,* 305–352. doi:10.1017 /S027226310505014X

Ellis, R. (1997). *Second language acquisition*. Oxford, UK: Oxford University Press.

Ellis, R. (2001). Introduction: Investigating form-focused instruction. *Language Learning, 51,* 1–46. doi:10.1111/j.1467-1770.2001.tb00013.x

Ellis, R. (2006). Current issues in the teaching of grammar: An SLA perspective. *TESOL Quarterly, 40,* 83–107. doi:10.2307/40264512

Ellis, R. (2009). Corrective feedback and teacher development. *L2 Journal, 1*(1), 3–18. Retrieved from http://escholarship.org/uc/item/2504d6w3

Erdogan, V. (2005). Contribution of error analysis to foreign language teaching. *Mersin University Journal of the Faculty of Education, 2,* 261–270. Retrieved from http://efd.mersin.edu.tr/dergi/meuefd_2005_001_002/pdf/meuefd_2005_001_002_0261-0270_erdogan.pdf

Ferman, S., Olshtain, E., Schechtman, E., & Karni, A. (2009). The acquisition of a linguistic skill by adults: Procedural and declarative memory interact in the learning of an artificial morphological rule. *Journal of Neurolinguistics, 22,* 384–412. doi:10.1016/j.jneuroling.2008.12.002

Foster, P., & Skehan, P. (1996). The influence of planning and task-type on second language performance. *Studies in Second Language Acquisition, 18,* 299–323. doi:10.1017/S0272263100015047

Gass, S. (2003). Input and interaction. In C. Doughty & M. Long (Eds.), *Handbook of second language acquisition* (pp. 224–255). Oxford, England: Blackwell.

Gatbonton, E., & Segalowitz, N. (1988). Creative automatization: Principles for promoting fluency within a communicative framework. *TESOL Quarterly, 22,* 473–492. doi:10.2307/3587290

Gatbonton, E., & Segalowitz, N. (2005). Rethinking communicative language teaching: A focus on access to fluency. *Canadian Modern Language Review, 61,* 325–353. doi:10.3138/cmlr.61.3.325

Gay, L. R., & Airasian, P. (2003). *Educational research: Competencies for analysis and application* (7th ed.). Upper Saddle River, NJ: Merrill Prentice Hall.

Gifford, C., & Mullaney, L. (1999). From rhetoric to reality: Applying the communication standards to the classroom. *NECTFL Review, 46,* 12–18. Retrieved from http://files.eric.ed.gov/fulltext/ED435190.pdf

Gold, E. M. (1967). Language identification in the limit. *Information and Control, 10,* 467–474. doi:10.1016/S0019-9958(67)91165-5

Green, S. B, Salkind, N. J., & Akey, T. M. (2000). *Using SPSS for windows analyzing and understanding data* (2nd ed.). Upper Saddle, River, NJ: Prentice Hall.

Guenette, D. (2007). Is feedback pedagogically correct? Research design issues in studies of feedback on writing. *Journal of Second Language Writing, 16,* 40–53. doi:10.1016/j.jslw.2007.01.001

Hadley, A. (2001). *Teaching language in context*. Boston, MA: Heinle and Heinle.

Harley, B., Cummins, J., Swain, M., & Allen, P. (1990). The nature of language proficiency. In B. Harley, P. Allen, J. Cummins, & M. Swain (Eds.), *The development of second language proficiency* (pp. 7–25). Cambridge, England: Cambridge University Press.

Harris, R. (1998, March). *Making grammar instruction relevant through student-run conversations*. Paper presented at the TESOL Annual Convention, Seattle, WA.

Hattie, J., & Timperley, H. (2007). The power of feedback. *Review of Educational Research, 77,* 81–112. doi:10.3102/003465430298487

Havranek, G., & Cesnik, H. (2001). Factors affecting the success of corrective feedback. *Eurosla Yearbook, 1*(1), 99–122. doi:10.1075/eurosla.1.10hav

Housen, A., & Kuiken, F. (2009). Complexity, accuracy, and fluency in second language acquisition. *Applied Linguistics, 30,* 461–473. doi:10.1093/applin/amp048

Hunter, J. (2012). 'Small talk': Developing fluency, accuracy, and complexity in speaking. *ELT Journal, 66,* 30–41. doi:10.1093/elt/ccq093

Kennedy, S. (2010). Corrective feedback for learners of varied proficiency levels: A teacher's choices. *TESL Canada Journal, 27,* 31–50. Retrieved from http://www .teslcanadajournal.ca/

Krashen, S. D. (1982). *Principles and practice in second language acquisition*. Oxford, England: Pergamon.

Krashen, S. D. (1994). The input hypothesis and its rivals. In N. Ellis (Ed.), *Implicit and explicit learning of languages* (pp. 45–77). London, England: Academic Press.

Krashen, S. D., & Seliger, H. W. (1975). The essential contributions of formal instruction in adult second language learning. *TESOL Quarterly, 9,* 173–183. doi:10.2307 /3585484

Larsen-Freeman, D. (1990). On the need for a theory of language teaching. In J. E. Alatis (Ed.), *Georgetown University round table on language and linguistics 1990* (pp. 261–270). Washington, DC: Georgetown University Press.

Lee, J., & VanPatten, B. (1995). *Making communicative language teaching happen.* New York, NY: McGraw-Hill Education.

Lee, S.-Y., Moon, J., & Long, M. H. (2009). Linguistic correlates of proficiency in Korean as a second language. *Language Research, 45,* 319–348. Retrieved from http://www.international.ucla.edu/media/files/proficiency_04-h2-mql.pdf

Lennon, P. (1991). Error: Some problems of definition and identification. *Applied Linguistic, 12,* 180–195. doi:10.1093/applin/12.2.180

Lightbown, P., & Spada, N. (2006). *How languages are learned*. Oxford, England: Oxford University Press.

Liu, Q., & Shi, J. (2007). An analysis of language teaching approaches and methods: Effectiveness and weakness. *US-China Education Review, 4*(1), 69–71. Retrieved from http://files.eric.ed.gov/fulltext/ED497389.pdf

Locke, E. A., & Latham, G. P. (1990). *A theory of goal setting and task performance*. Englewood Cliffs, NJ: Prentice Hall.

Long, M. (1988). Instructed interlanguage development. In L. Beebe (Ed.), *Issues in second language acquisition: Multiple perspectives* (pp. 115–141). Rowley, MA: Newbury House.

Long, M. (1996). The role of the linguistic environment in second language acquisition. In W. C. Ritchie & T. K. Bhatia (Eds.), *Handbook of language acquisition. Vol. 2: Second language acquisition* (pp. 413–468). New York, NY: Academic Press.

Long, M. (2007). *Problems in SLA*. Mahwah, NJ: Erlbaum.

Lynch, T., & Maclean, J. (2001). 'A case of exercising': Effects of immediate task repetition on learners' performance. In M. Bygate, P. Skehan, & M. Swain (Eds.), *Researching pedagogic tasks: Second language learning, teaching and testing* (pp. 140–162). Harlow, England: Pearson Education.

Mackey, A., & Philip, J. (1998). Conversational interaction and second language development: Recasts, responses, and red herrings? *Modern Language Journal, 82,* 338–356. doi:10.1111/j.1540-4781.1998.tb01211.x

Mackey, A., Polio, C., & McDonough, K. (2004). The relationship between experience, education and teachers' use of incidental focus-on-form techniques. *Language Teaching Research, 8,* 301–327. doi:10.1191/1362168804lr147oa

Maicusi, T., Maicusi, P., & Lopez, M. (2000). The error in the second language acquisition. *Encuentro Revisita de Investigacion e Innovacion en la Clase de Idiomas, 11,* 23–40. Retrieved from http://www.encuentrojournal.org/textos/11.17.pdf

McKnight, P. E., & Najab, J. (2010). Mann–Whitney *U* Test. *Corsini Encyclopedia of Psychology*. doi:10.1002/9780470479216.corpsy0524

Mehnert, U. (1998). The effects of different lengths of time for planning on second language performance. *Studies in Second Language Acquisition, 20,* 83–108. doi:10.1017/S0272263198001041

Michel, M. C., Kuiken, F., & Vedder, I. (2007). The influence of complexity in monologic versus dialogic tasks in Dutch L2. *International Review of Applied Linguistics in Language Teaching, 45*(3), 241–259. doi:10.1515/IRAL.2007.011

Mitchell, R. (2000). Applied linguistics and evidence-based classroom practice: The case of foreign language grammar pedagogy. *Applied Linguistics, 21,* 281–303. doi:10.1093/applin/21.3.281

Mitchell, R., & Myles, E. (2004). *Second language learning theories*. London, England: Arnold.

Nostrand, H. L. (1970). The foreign culture: What do we do about it now? In E. Reichman (Ed.), *The teaching of German: Problems and methods* (pp. 73–75). Philadelphia, PA: National Carl Schurz Association.

Nunan, D. (1995). Closing the gap between learning and instruction. *TESOL Quarterly, 29,* 133–158. doi:10.2307/3587808

Pienemann, M. (1998). *Language processing and second language development*. Amsterdam, The Netherlands: John Benjamins.

Raymond, E. (2000) *Cognitive characteristics: Learners with mild disabilities*. Needham Heights, MA: Allyn & Bacon.

Riggenbach, H. (1991). Toward an understanding of fluency: A microanalysis of nonnative speaker conversations. *Discourse Processes, 14,* 423–441. doi:10.1080/01638539109544795

Robinson, P. (2001). Task complexity, cognitive resources, and syllabus design: A triadic framework for examining task influences on SLA. In P. Robinson (Ed.), *Cognition and second language instruction* (pp. 287–318). Cambridge, England: Cambridge University Press.

Rodriguez, A. (2009). *Teaching grammar to adult English language learners: Focus on form.* Retrieved from http://www.cal.org/caelanetwork/pdfs/TeachingGrammarFinalWeb.pdf

Sadler, R. (1989). Formative assessment and the design of instructional systems. *Instructional Science, 18,* 119–144. doi:10.1007/BF00117714

Salaberry, R. (2000). Revising the revised format of the ACTFL Oral Proficiency Interview. *Language Testing, 17,* 289–310. doi:10.1191/026553200676435691

Savignon, S. J. (1990). Communicative language teaching: Definitions and directions. In J. E. Alatis (Ed.), *Georgetown University round table on language and linguistics 1990* (pp. 205–217). Washington, DC: Georgetown University Press.

Scheffler, P. (2008). The natural approach to adult learning and teaching of L2 grammar. *International Review of Applied Linguistics in Language Teaching, 46,* 289–313. doi:10.1515/IRAL.2008.013

Schmidt, R. (1991). Input, interaction, attention, and awareness: The case for consciousness-raising in second language teaching. *Anais do X Encontro de Professores Universitários de Língua Inglesa, 1.2*, 1–23. Rio de Janeiro, Brazil: PUC/RJ.

Schmidt, R. (2001). Attention. In P. Robinson (Ed.), *Cognition and second language instruction* (pp. 3–32). New York, NY: Cambridge University Press.

Schorr, J. L. (2000). A generation of business foreign languages. *Global Business Languages, 5*(2). Retrieved from http://docs.lib.purdue.edu/gbl/vol5/iss1/2

Selinker, L. (1972). Interlanguage. *International Review of Applied Linguistics in Language Teaching, 10,* 209–231. doi:10.1515/iral.1972.10.1-4.209

Skehan, P. (1996). A framework for the implementation of task-based instruction. *Applied Linguistics, 17,* 23–62. doi:10.1093/applin/17.1.38

Skehan, P. (1998). *A cognitive approach to language learning.* Oxford, England: Oxford University Press.

Skehan, P. (2002). A non-marginal role for tasks. *English Language Teaching Journal, 56,* 289–295. doi:10.1093/elt/56.3.289

Skehan, P. (2009). Modeling second language performance: Integrating complexity, accuracy, fluency, and lexis. *Applied Linguistics,* 1–23. doi:10.1093/applin /amp047

Skehan, P., & Foster, P. (1997). Task type and task processing conditions as influences on foreign language performance. *Language Teaching Research, 1,* 185–211. doi: 10.1177/136216889700100302

Spada, N., & Lightbown, P. M. (1999). Instruction, first language influence, and developmental readiness in second language acquisition. *Modern Language Journal, 83,* 1–22. doi:10.1111/0026-7902.00002

Swain, M. (1985). A critical look at the communicative approach (2). *English Language Teaching Journal, 39,* 76–87. doi:10.1093/elt/39.2.76

Swain, M. (1995). Three functions of output in second language learning. In G. Cook & B. Seidlhofer (Eds.), *Principle and practice in applied linguistics* (pp. 125–144). Oxford, England: Oxford University Press.

Swain, M. (2005). Legislation by hypothesis: The case of task-based instruction. *Applied Linguistics, 26,* 376–401. doi:10.1093/applin/ami013

Truscott, J. (1996). The case against grammar correction in L2 writing classes. *Language Learning, 46,* 327–369. doi:10.1111/j.1467-1770.1996.tb01238.x

Van Beuningen, C. (2010). Corrective feedback in L2 writing: Theoretical perspectives, empirical insights, and future directions. *International Journal of English Studies, 10*(2), 1–27. Retrieved from http://files.eric.ed.gov/fulltext/EJ936908.pdf

VanPatten, B. (2002). Processing instruction: An update. *Language Learning, 52,* 755–803. doi:10.1111/1467-9922.00203

VanPatten, B. (2007). Input processing in adult second language acquisition. In B. VanPatten & J. Williams (Eds.) *Theories in second language acquisition: An introduction* (pp. 115–135). Mahwah, NJ: Lawrence Erlbaum.

VanPatten, B., & Benati, A. (2009). *Key terms in second language acquisition*. London, England: Continuum Press.

VanPatten, B., Williams, J., & Rott, S. (2004). *Form-meaning connections in second language acquisition*. Mahwah, NJ: Lawrence Erlbaum.

Vygotsky, L. (1962). *Thought and language*. Cambridge, MA. MIT Press.

Vygotsky, L. (1978). *Mind in society: The development of higher mental processes*. Cambridge, MA: Harvard University Press.

Widdowson, H. G. (1990). *Aspects of language teaching*. Oxford, England: Oxford University Press.

Wong, W. (2009). Rethinking a focus on grammar: From drills to processing instruction: Data from the French subjunctive. In J. Watzinger-Tharp & S. Katz (Eds.), *Conceptions of L2 grammar: Theoretical approaches and their application in the L2 classroom* (pp. 72–92). Boston, MA: Heinle Cengage Learning.

APPENDICES

APPENDIX A: AMERICAN COUNCIL ON THE TEACHING OF FOREIGN

LANGUAGES ASSESSMENT CRITERIA—SPEAKING

Assessment Criteria-Speaking

Proficiency Level	Global Tasks and Functions	Context/ Content	Accuracy/ Comprehensibility	Text Type
Superior	Discuss topics extensively, supports opinions and hypothesize. Deal with a linguistically unfamiliar situation.	Most formal and informal settings/ *Wide range of general interest topics and some special fields of interest and expertise*	No pattern of errors in basic structures. Errors virtually never interfere with communication or distract the native speaker from the message	Extended discourse
Advanced	Narrate and describe in major time frames and deal effectively with unanticipated complication.	Most informal and some formal settings/ *Topics of personal and general interest*	Understood without difficulty by speakers unaccustomed to dealing with non-native speakers	Paragraphs
Intermediate	Create with language, initiate, maintain, and bring to a close simple conversations by asking and responding to simple questions.	Some informal settings and limited number of transactional situations/ *Predictable, familiar topics related to daily activities.*	Understood, with some repetition, by speakers accustomed to dealing with non-native speakers.	Discrete sentences
Novice	Communicate minimally with formulaic and rote utterances, list and phrases.	Most common informal settings/ *Most common aspects of daily life.*	May be difficult to understand, even for speaker accustomed to dealing with non-native speakers	Individual words and phrases

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APPENDIX B: SENATE RESOLUTION 28

III

109TH CONGRESS
1ST SESSION **S. RES. 28**

Designating the year 2005 as the "Year of Foreign Language Study".

———————

IN THE SENATE OF THE UNITED STATES

FEBRUARY 1, 2005

Mr. DODD (for himself, Mr. COCHRAN, Mr. AKAKA, Mr. BAUCUS, Mr. BINGA-MAN, Mr. DURBIN, Mr. FEINGOLD, Mr. HAGEL, Mr. KENNEDY, Mr. LAU-TENBERG, Mr. LIEBERMAN, Mr. LUGAR, Mr. ISAKSON, Ms. LANDRIEU, and Mr. SARBANES) submitted the following resolution; which was re-ferred to the Committee on the Judiciary

FEBRUARY 17, 2005

Committee discharged; considered and agreed to

———————

RESOLUTION

Designating the year 2005 as the "Year of Foreign Language Study".

Whereas according to the 2000 decennial census of the popu-lation, 9.3 percent of Americans speak both their native language and another language fluently;

Whereas according to the European Commission Directorate General for Education and Culture, 52.7 percent of Eu-ropeans speak both their native language and another language fluently;

Whereas the Elementary and Secondary Education Act of 1965 names foreign language study as part of a core cur-

2

riculum that includes English, mathematics, science, civics, economics, arts, history, and geography;

Whereas according to the Joint Center for International Language, foreign language study increases a student's cognitive and critical thinking abilities;

Whereas according to the American Council on the Teaching of Foreign Languages, foreign language study increases a student's ability to compare and contrast cultural concepts;

Whereas according to a 1992 report by the College Entrance Examination Board, students with 4 or more years in foreign language study scored higher on the verbal section of the Scholastic Aptitude Test (SAT) than students who did not;

Whereas the Higher Education Act of 1965 labels foreign language study as vital to secure the future economic welfare of the United States in a growing international economy;

Whereas the Higher Education Act of 1965 recommends encouraging businesses and foreign language study programs to work in a mutually productive relationship which benefits the Nation's future economic interest;

Whereas according to the Centers for International Business Education and Research program, foreign language study provides the ability both to gain a comprehensive understanding of and to interact with the cultures of United States trading partners, and thus establishes a solid foundation for successful economic relationships;

Whereas Report 107–592 of the Permanent Select Committee on Intelligence of the House of Representatives concludes that American multinational corporations and nongovern-

3

mental organizations do not have the people with the foreign language abilities and cultural exposure that are needed;

Whereas the 2001 Hart-Rudman Report on National Security in the 21st Century names foreign language study and requisite knowledge in languages as vital for the Federal Government to meet 21st century security challenges properly and effectively;

Whereas the American intelligence community stresses that individuals with proper foreign language expertise are greatly needed to work on important national security and foreign policy issues, especially in light of the terrorist attacks on September 11, 2001;

Whereas a 1998 study conducted by the National Foreign Language Center concludes that inadequate resources existed for the development, publication, distribution, and teaching of critical foreign languages (such as Arabic, Vietnamese, and Thai) because of low student enrollment in the United States; and

Whereas a shortfall of experts in foreign languages has seriously hampered information gathering and analysis within the American intelligence community as demonstrated by the 2000 Cox Commission noting shortfalls in Chinese proficiency, and the National Intelligence Council citing deficiencies in Central Eurasian, East Asian, and Middle Eastern languages: Now, therefore, be it

1 *Resolved,* That—

2 (1) it is the sense of the Senate that foreign

3 language study makes important contributions to a

4

1 student's cognitive development, our national econ-

2 omy, and our national security;

3 (2) the Senate—

4 (A) designates the year 2005 as the "Year

5 of Foreign Language Study", during which for-

6 eign language study is promoted and expanded

7 in elementary schools, secondary schools, insti-

8 tutions of higher learning, businesses, and gov-

9 ernment programs; and

10 (B) requests that the President issue a

11 proclamation calling upon the people of the

12 United States to—

13 (i) encourage and support initiatives

14 to promote and expand the study of for-

15 eign languages; and

16 (ii) observe the "Year of Foreign Lan-

17 guage Study" with appropriate ceremonies,

18 programs, and other activities.

○

APPENDIX C: UNIVERSITY OF SAN FRANCISCO INSTITUTIONAL REVIEW

BOARD FOR THE PROTECTION OF HUMAN SUBJECTS APPROVAL

Gmail by Google

Salah Farah <salahfarah@gmail.com>

IRB Application #12-146 - Exempt
1 message

USF IRBPHS <irbphs@usfca.edu>   Tue, Nov 27, 2012 at 12:24 PM
To: salahfarah@gmail.com
Cc: taylorb@usfca.edu

November 27, 2012

Dear Salah Farah:

The Institutional Review Board for the Protection of Human Subjects (IRBPHS)
at the University of San Francisco (USF) has reviewed your request for human
subjects approval regarding your study. Your study has been deemed to be exempt
from IRB review based on the following conditions:

Unless otherwise required by department or agency heads, research activities
in which the only involvement of human subjects will be in one or more of the following
categories are exempt from this policy:

1) Research involving the use of educational tests (cognitive, diagnostic, aptitude,
achievement), survey procedures, interview procedures or observation of public behavior,
unless: (i) information obtained is recorded in such a manner that human subjects can be
identified, directly or through identifiers linked to the subjects, and (ii) any
disclosure of the human subjects' responses outside the research could reasonably place
the subjects at risk of criminal or civil liability or be damaging to the subjects'
financial standing, employability, or reputation.

This application does not require IRB review.

On behalf of the IRBPHS committee, I wish you much success in your research.

Sincerely,

Terence Patterson, EdD, ABPP
Chair, Institutional Review Board for the Protection of Human Subjects
----
IRBPHS – University of San Francisco
Counseling Psychology Department
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APPENDIX D: DEFENSE LANGUAGE INSTITUTE FOREIGN LANGUAGE

CENTER INSTITUTIONAL REVIEW BOARD APPROVAL

DEPARTMENT OF THE ARMY
·DEFENSE LANGUAGE INSTITUTE FOREIGN LANGUAGE CENTER
AND PRESIDIO OF MONTEREY
MONTEREY CA 93944-3236

November 1, 2012

Institutional Review Board (IRB)
U.S. Army Assurance: DOD A20209

Institutional Review Board for the Protection of Human Subjects
University of San Francisco (USF)
2130 Fulton Street
San Francisco, CA 94117

Dear Members of the USF IRB:

On behalf of the U.S. Army Defense Language Institute Foreign Language Center (DLIFLC), I am writing to formally indicate our awareness of a research project proposed by Mr. Salah A. Farah, a graduate student in the School of Education at USF.

This research project, tentatively entitled *The Effect of Sequent Input on L2 Accuracy and Fluency in Adults at Intermediate Proficiency Level*, has been reviewed by Dr. Donald Fischer (DLIFLC Provost), and he has approved the use of DoD personnel as participants in this research project.

I have been informed that the USF IRB will conduct the review and maintain institutional oversight of this project. Once the USF IRB has completed its review of the project, I ask that a copy of the outcome of that review (and approval number) be send to me so we may maintain a file on this project in our folder of current research projects.

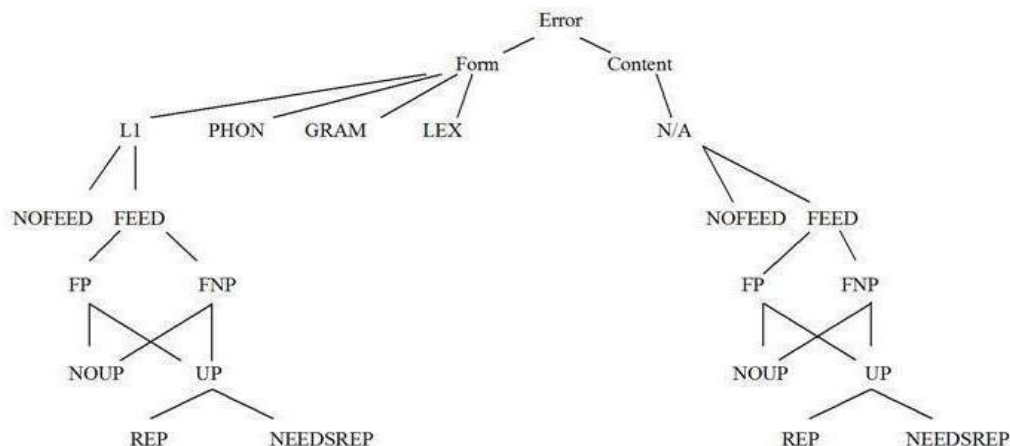If you have any questions or concerns, please feel free to contact me.

Sincerely,

J. Jeffrey Crowson, Ph.D.
IRB Chair
Professor, Educational Research
(831) 242-3788
jeffrey.j.crowson.civ@mail.mil

APPENDIX E: CODING SCHEME AND EXAMPLES

Sara Kennedy's (2010) Coding Scheme and Examples

Descriptions of Category Codes

Six hierarchical category levels, showing possible corrective feedback sequences.
Feedback sequences are shown only for L1 and content errors, same sequences apply to other form errors (PHON, GRAM, LEX).
Only one option can be selected at each category level.
Solid lines represent possible paths for corrective feedback sequences.

Errors of Form

L1　　　　Use of first language

Errors of Content

N/A　　Not applicable (placeholder category to ensure that the same categories are at the same hierarchical levels)

PHON　　　Phonological inaccuracy
GRAM　　　Grammatical inaccuracy
LEX　　　　Lexical inaccuracy

Error treatment

NOFEED　　Teacher does not provide corrective feedback
FEED　　　Teacher provides corrective feedback

Corrective feedback

FP　　　　Teacher supplies correct form in corrective feedback
FNP　　　Teacher does not supply correct form in corrective feedback

Learner response

NOUP　　　Learner does not attempt to repair error
UP　　　　Learner attempts to repair error

Attempted error correction

REP　　　　Learner repairs error successfully
NEEDSREP　Learner does not repair error successfully

APPENDIX F: YOU HAVE TO HAVE A HEART ACTIVITY

You Have to Have a Heart

Instructions. You are one of the members of the City Hospital Judicial Board and must make a crucial decision. Individually, you assign priority numbers to 5 patients on a waiting list for a heart transplant. Next, the Judicial Board (your team) meets to achieve consensus (1 = first in line; 5 = last in line).

Step 1.

Individual Ranking. Working alone, you make a priority ranking of the 5 patients waiting for a heart transplant.

Step 2.

Board Meeting. After you and the remainder of the Judicial Board (your teammates) have completed your own priority ranking, you have a meeting. You work together to finalize the priority ranking. The rule is before you can express your opinion, you must validate the thoughts or feelings of another member, even if they differ from your own.

①
Johnny Jaberg
♥ Age: 35
♥ Occupation: Famous actor
♥ Description: Divorced, wife has custody of both children, donates to create shelters for the homeless
Rank:
1 2 3 4 5

②
Howard Wilkinson
♥ Age: 55
♥ Occupation: California State Senator
♥ Description: Married, 1 child, recently elected, financially well-to-do
Rank:
1 2 3 4 5

③
Ann Doyle
♥ Age: 45
♥ Occupation: Housewife
♥ Description: Widow, supports 3 children, small income, no savings
Rank:
1 2 3 4 5

④
George Money
♥ Age: 61 ♥ Occupation: Suspected of underworld involvement
♥ Description: Married, 7 children, extremely wealthy, will donate a very large sum to the hospital following the operation
Rank:
1 2 3 4 5

⑤
Peter Santos
♥ Age: 23
♥ Occupation: "B" average student
♥ Description: Single, studies hard, helps support poor family, aspires to be a policeman when he graduates
Rank:
1 2 3 4 5

Sponge Activity As a team, create a list of factors and fair decision rules for determining priority for a transplant.

APPENDIX G: INFORMED-CONSENT FORM

Informed Consent Form

My name is Salah A. Farah. I am a doctoral student in the School of Education, University of San Francisco, California. I am conducting a research project to examine the effect of sequenced input (SI) on speech accuracy and fluency among adult students studying modern standard Arabic in Monterey, California. Hence, it is expected that the results of this study will contribute good evidence and increase awareness among teachers and students as a complementary treatment to reduce speech inaccuracy and disfluency. This research study will be undertaken for 4 days. In this study, you will be randomly assigned into one of two groups, either a control group which you will receive standard immersion instruction from our teachers or an experimental group which similar to the control group plus SI feedbacks form the researcher.

You are being asked to participate in this study. If you decide to participate in this study voluntarily, I will ask you to provide your personal information. Altogether you will spend approximately 30to 40minutes participating in this study. Your contribution will be valuable for the development of the language teaching profession, particularly in giving error treatment for adult students to reduce speech inaccuracy and disfluency. This study has no known risk related to your well-being.

All information will remain confidential and anonymous, and will only be accessible bythe researcher. Your participation is voluntary. It willdepend on you whether you participate or not. You may withdraw from this study at any time andno penalty. Your signature in this form will indicate that you understand this form and you are willing to participate in this study.

....	....	....
Participant	Signature	Date

At any later time, if you need to ask or inquire about anything regarding your participation in this study, I may be reached by telephone at (831) 521 2937, or by letter or email at the addresses shown below.

Home address: 405 Harcourt Avenue, Seaside, CA 93955

Email address: salahfarah@gmail.com