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Exploring the Effectiveness of Collaborative Assessment Preparation with Immediate Feedback in an Intensive Adult English as a Second Language Classroom

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FLORIDA STATE UNIVERSITY
COLLEGE OF EDUCATION

EXPLORING THE EFFECTIVENESS OF COLLABORATIVE ASSESSMENT
PREPARATION WITH IMMEDIATE FEEDBACK IN AN INTENSIVE ADULT
ENGLISH AS A SECOND LANGUAGE CLASSROOM

By

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I dedicate this work to my students. The inspiration for my research comes from the young men and women who have set foot in my language classrooms over the years. First, in my German classrooms at the Air Force Academy in Colorado Springs, Colorado; then, in my English classrooms half a world away at Camp Taji and FOB Warrior, Iraq. It was through them that I found my calling; my love for language instruction.

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ABSTRACT

Learning to speak a foreign language can be a difficult and time-consuming endeavor, involving verbal exchanges in a target language. It is a process that includes learning about, understanding, and to some extent identifying with members of another culture who speak a different language. The inclusion of collaborative activities in the language classroom provides a natural setting for conversation and increases the learners' opportunity to use the target language. When working in small groups or in pairs, students are practically forced to communicate to accomplish a learning task. Students learn together so they are subsequently able to perform better individually.

The primary purpose of the current study was to examine if a collaborative assessment preparation strategy with immediate feedback used in an intensive adult English language program at the Defense Language Institute English Language Center (DLI) had an effect on achievement, confidence and satisfaction with the learning experience. A secondary purpose was to examine the relationships among students' entry proficiency level, language anxiety, confidence, satisfaction and achievement in this setting. DLI provides English language training to members of foreign militaries from over 100 countries. This quasi-experimental study included 76 participants from 21 different countries, enrolled in upper-intermediate General English courses at DLI. The instructional intervention used by participants in the experimental group included individual and pair completion of practice quizzes using immediate feedback assessment technique (IF AT) answer sheets. Participants in the control condition went through the same lesson plans as their experimental group peers but without completing any of the practice quizzes. Data were collected over the course of one week using test scores, survey instruments, interviews and classroom observations.

Results showed that there was no significant difference between control group and experimental group on the outcome measures. However, the relationship between confidence and achievement was significant. Analysis of learner perceptions of the instructional strategy revealed three overarching themes: (1) students valued collaborating and discussing with peers during quiz completion; (2) the feedback they received; and (3) learning from their mistakes. Students perceived making mistakes and disagreements with their partners as less enjoyable. Instructors mentioned the immediate feedback learners received, the active learner engagement, and learner confidence as the most beneficial attributes of the intervention. The overarching concern of instructors was the time it took to complete the quizzes, due to the already limited time available to cover course content.

Limitations of the study include the short data collection period resulting in limited exposure to the intervention, the uniqueness of the participants, and the inclusion of only upper-intermediate level books in the experiment. Future research should include all levels of the General English curriculum, participant scores from practice quizzes, and learner perceptions by culture group.

CHAPTER 1

INTRODUCTION

In any educational endeavor, the overarching goal is to impact learning and performance in some way. The field of foreign language education is no exception. Millions of people all over the world engage in language acquisition practices to communicate with members of other language communities. Globalization and a broad access to world markets now make it possible for people from diverse linguistic and cultural backgrounds to interact socially and professionally in a variety of face-to-face and online settings. However, unless a person is fortunate enough to have grown up in a bilingual or even multilingual environment, learning to communicate effectively in another language is a difficult and time-consuming effort that requires life-long commitment (Dörnyei, 1997).

Background

Over the years, a variety of language teaching and learning strategies have emerged. The classical method of language instruction is referred to as the Grammar-Translation method, and focuses on adherence to rules, text memorization, and the completion of written activities (Defense Language Institute English Language Center, 2008). This method resulted in students who knew grammar rules well, but had few communicative skills (Huang, 2010.) Another strategy, the Direct Method, functions the same way a learner acquires his or her native language with extensive oral interaction and a natural unscripted use of the target language. During World War II, the Audio-lingual Method was developed to quickly train members of the military in foreign languages. This method uses a sequence of grammatical structures increasing in difficulty, and is based on an overlearning of the material with 100 percent error correction. The Cognitive Code Method enables the learner to relate to the lesson material in meaningful ways.

Errors are considered inevitable and the teacher facilitates peer and self-correction. In the Natural Approach of language instruction the learners' language production is delayed until the student is prepared to speak, emphasizing a relaxed classroom atmosphere (Defense Language Institute English Language Center, 2008).

The communicative approach is now being advocated by many scholars, and is widely used by practitioners in the field. Collaborative dialog among peers during communicative activities that include reading, writing, listening and speaking in a target language facilitates language acquisition (Swain, Brooks & Tocalli-Beller, 2002). While scholars generally agree that the best way to learn a language is to use it, this strategy can also bring with it certain anxieties that are specifically associated with language learning. Research findings show that the relationship between language anxiety and achievement in the language classroom has been fairly consistent, pointing to a moderate negative relationship (Horwitz, 2001). In recent years, small group and pair activities have shown promising results in attempts to counter anxiety and some of the other negative emotions that learners sometimes experience when trying to learn another language. Apart from language anxiety, particular motivational factors such as low levels of confidence and satisfaction have also been associated with limited foreign language achievement (Dörnyei, 1994).

Many studies have addressed collaborative strategies in a language learning context. As learners communicate with their language learning peers in small groups, they must talk to each other to achieve assigned task goals (Swain, 1999). Language learning involves verbal exchanges in a target language. It is a process that could be labeled a global adventure which involves learning about, understanding, and at times identifying with members of another culture who speak a different language, sometimes even halfway around the world (Oxford, 1997). Real

benefit is obtained during high quality interactions (Pandey & Kapitanoff, 2011). The ability to explain the rationale for one's decisions to others has been shown to enhance learning (Michaelsen, 1992; Kapitanoff, 2009). This may be particularly true when learners succeed in making themselves understood in another language. The ability to respond freely is an excellent measure of communicative competence (Huang, 2010). In doing so, their language anxiety decreases (Long & Porter, 1985). Research suggests that learners also gain self-confidence (Imai, 2010) and become more motivated to persist in language learning (Dörnyei & Malderez, 1997).

In collaboration, peers draw on each other's language resources as they attempt to resolve language-related problems (Storch, 2002). In the language classroom this also means increased use of new vocabulary and grammar concepts as learners prepare for upcoming exams. Here, the use of practice quizzes, completed in collaboration with others, can serve as a powerful motivator for students to remain focused on learning goals (Sibley & Parmalee, 2008). True learning is demonstrated when students are able to explain content and teach their classmates (Yelcur, 2005); and by doing so students may also develop more positive relationships among classmates and create a more constructive learning environment (Rao, Collins & DiCarlo, 2002).

Context

Under the umbrella of the U.S. Defense Department, the Defense Language Institute English Language Center (DLIELC or DLI) provides general and specialized English language training to military personnel from over 100 countries. A recently published RAND study (2012) states that DLI may be considered an enabler to the U.S. security cooperation mission by helping to build partner capacity in many countries around the world. Advanced technical training at the various U.S. military training locations is not possible without the appropriate level of English language skills (Manacapilli et al., 2012). Enrollment duration in DLI's language courses

depends largely on how quickly students are able to attain the required minimum level of proficiency. Students are placed in courses based on an in-house developed proficiency test called the English Comprehension Level (ECL) exam. This is a standardized, computer-based multiple-choice test and a passing ECL score is a key graduation requirement at DLI. Limited availability of funding for language training or hard start dates for students' formal follow-on training courses sometimes adds pressure for students to obtain the required level of English language proficiency in a short amount of time. Apart from the current strategies employed in the DLI classroom, the level of intensity, and the overall academic stakes associated with the language program may also have an effect on learning outcomes. For example, researchers have found significant negative relationships between language anxiety and standardized proficiency tests (MacIntyre, 1995).

Statement of the Problem

Surprisingly, the use of collaborative practice strategies to improve learner achievement in the foreign language classroom has only received limited attention in the literature to date. Furthermore, there are very few studies that have included the completion of practice quizzes, either for individual completion or in collaboration. The majority of existing studies have taken place in lab settings that were specifically created for them, rather than in a naturally occurring language learning environment. More research is needed to determine the effect of collaborative practice strategies in an existing language learning setting. The results of this study will add to what is currently known about the effect of collaborative practice strategies on achievement, learner confidence and satisfaction; as well as the role anxiety plays in a naturally occurring language learning context.

Purpose of the Study

The primary purpose of the current study was to examine if a collaborative assessment preparation strategy with immediate feedback used in an intensive adult English language program at the Defense Language Institute (DLI) has an effect on learner achievement, confidence and satisfaction with this learning experience. I also examined if language anxiety and the participants' English Comprehension Level (ECL) exam scores were related to achievement, confidence and satisfaction in this context. This collaborative assessment preparation strategy included individual completion of multiple-choice practice quizzes followed by pair completion of the same quiz using a particular answer sheet called the Immediate Feedback Assessment Technique (IF AT) that is based on the Readiness Assurance Process, a key component of the Team-based Learning model developed by Michaelsen (1992). Achievement in this study was measured by performance on a standardized, in-house developed, multiple-choice proficiency test. Language anxiety, confidence and satisfaction with the learning experience were measured using survey instruments.

Research Questions and Hypotheses

The research questions and hypotheses that guided this study were:

- 1.) What is the effect of Collaborative Assessment Preparation on learner confidence, satisfaction and achievement, as compared to the traditional learning strategy used in an intensive adult ESL classroom at DLI?
- 2.) How does language anxiety relate to learner confidence, satisfaction and achievement in this setting?
- 3.) How do participant scores on the English Comprehension Level exam relate to learner confidence, satisfaction and achievement in this setting?

4.) What is the relationship between learner confidence and achievement in this setting?

Research Hypotheses

1.) Using Collaborative Assessment Preparation in an intensive adult ESL classroom at DLI will have a significant positive effect on learner confidence, satisfaction and achievement.

2.) Language anxiety will have a significant negative relationship with confidence and achievement.

3.) English Comprehension Level exam scores will have a significant positive relationship with confidence and achievement.

CHAPTER 2

REVIEW OF THE LITERATURE

The inherent communicative nature of foreign language education can make collaborative learning strategies very effective in the language classroom. In this literature review I examine some of the key elements associated with collaborative learning, discuss related research on small group learning, and show how this approach relates to the affective variables of language anxiety, confidence and satisfaction, as well as achievement in the foreign language classroom.

Collaboration

The effectiveness of collaborative learning strategies in classroom settings is well documented in the literature. Educational scholars like Kagan (1989), Johnson, Johnson and Smith (1998) and Slavin (1991) have been researching and advocating the merits of group learning for decades. Two of the early proponents of collaborative strategies in the foreign language classroom (Long & Porter, 1985) highlighted five pedagogical reasons for the suitability of group activities in the second language learning classroom: (1) Increased language practice opportunities because students normally don't have much chance to use the new language in a traditional language classroom; (2) Better quality of student discourse because face-to-face interaction in small groups provides a natural setting for conversation; (3) Better individualized instruction because small groups can work on particular class materials at their own pace; (4) Promotion of a more positive affective climate because of lower levels of anxiety among shy or linguistically less confident students; and (5) The variety introduced in group activities is more motivating to students.

Building on Long and Porter's rationale, McGroarty (1989) added that cooperative learning is superior to traditional whole-class instruction because it allows students to develop

academic as well as interpersonal skills. It increases peer cooperation and promotes the development of teamwork skills (Russo & Warren, 1999). Language proficiency is considered a major factor in the students' ability to contribute to the group effort. By working in small groups or with a partner, students are practically forced to communicate to accomplish a task (Swain, 1999). When students have to provide information or clarify a point, less proficient students feel motivated to persist in communicating and will use a variety of strategies to do so. In collaborative settings, learners expand and solidify their own foreign language vocabulary (Göleksiz, 2007). What is expected of all students in a group setting is that everyone contributes ideas, encourages participation and helps to create divergent ideas. Students in bilingual classroom settings are also able to draw from their native language in small groups to promote comprehension of the assigned task (McGroarty, 1989).

Even so, assignment to a learning group and the directive to work together is no guarantee that learning will improve (Michaelsen, 1992), nor does the process naturally produce cooperative efforts (Johnson, Johnson & Smith, 1998; Donato, 2004). Instructors sometimes include collaborative activities without adding any learning value (Jeffrey, 2010). As is the case in any classroom environment, the instructor plays a key role in the successful implementation of collaborative learning strategies. In many cases, students get the opportunity to work through information or practice a skill after the teacher has presented new information (Slavin, 1991). Language learners approach verbal challenges not unlike native speakers would by using their existing knowledge to build on when they are creating new knowledge. This social interaction makes it necessary for the learner to use strategies like asking for clarification, asking for assistance, and working with others via language (Hsiao & Oxford, 2002).

What makes this collaborative learning approach so attractive in the foreign language learning classroom is the necessary interdependence among group members, group accountability, group formation, interpersonal skills and classroom structures that the students are experiencing in a variety of ways (Oxford, 1997). Here is where Oxford actually makes a formal distinction between cooperative and collaborative learning. According to Oxford, cooperative learning is highly organized with very specific goals, rigorously prescribed, and designed to lead to a particular skill development such as fluency or accuracy. Extensive research exists that uses both terms to describe small group learning. In contrast, collaborative learning is based on the construction of knowledge in a social context, and for language learners linguistic ideas are best developed in reflective exchanges with other people (Oxford, 1997). Language input and output takes place in social interactions, and learners have the opportunity to negotiate meaning with each other during small group, or partner activities (Huang, 2010).

Collaboration includes the recognition of each individual as part of a group and accepting group members' contributions in the attainment of a greater goal. This mutuality of learning is the reason for and the result of goal directed, mediated social relationships (Donato, 2004). Collaborative learning is defined as "social interaction where learners work together to achieve task goals" (Imai, 2010, p.283). In communicating with their peers, students have the opportunity to actively use the target language and likely increase awareness of their own language gaps that they can work through with a partner (Swain, 2001). Small groups can also be a source of language learning motivation and have a positive influence on the learning effort (Dörnyei & Malderez (1997). The learners' use of language learning strategies does not occur in isolation, and students often use different ones in combination to successfully communicate with one another (Foster & Ohta, 2005). The increase in language practice opportunities and the

associated variety of language production are two very attractive features that make a collaborative learning approach appealing to teachers from a variety of educational backgrounds (Long & Porter, 1985).

Working together in a classroom setting implies action, that learners are actively doing something, instead of being passive recipients of information. In their small groups, students have vast resources of their own that they can tap into for more efficient language learning (Dörnyei, 1997). Many times students accomplish tasks that they may not have been able to solve on their own (Swain 1999). Students learn together so each person is subsequently able to perform better individually (Johnson et al., 1998) as this process helps students think about the questions and answers during discussions (Pandey & Kapitanoff, 2011). Collaborative dialog among peers during second language learning activities that include reading, writing, listening and speaking in the target language mediates language acquisition (Swain, Brooks & Tocalli-Beller, 2002). Some researchers have claimed that language study may actually be unlike any other school subject due to its strong social and cultural aspects (MacIntyre, 2007), and more complex than merely learning new things (Dörnyei, 1994). For many learners it is also the most anxiety-provoking, conjuring up feelings of dread in language classes (Horwitz, 2000). Phillips (1992) speaks of language anxiety as having an obstructive influence on language learning.

Language Anxiety

Research findings indicate that the correlation between language anxiety and achievement has been relatively consistent, pointing to a moderate negative relationship (Horwitz, 2001). Studies have also shown significant negative relationships between language anxiety and standardized proficiency tests (MacIntyre, 1995). In her chapter published in the *Annual Review of Applied Linguistics*, Horwitz (2001) points out that this negative relationship

can be observed at different instructional levels and also holds true with a multitude of target languages. Of note to Horwitz is that language anxiety levels may vary among different culture groups. Tasks that may be comfortable for some learners, such as small group discussions or pair-work, may be judged stressful by others. According to Horwitz (2001), it may be difficult to determine if learning achievements are actually curtailed by anxiety or if more anxious language learners are simply unable to demonstrate their attained language competencies. MacIntyre (1995) speaks of a cyclical relation regarding anxiety and task accomplishment. As students experience failure due to having learned less, they will experience an even greater level of anxiety.

The emergence of anxiety can have an influence on the quality of performance and also the amount of effort a student invests in the learning process (MacIntyre, 1995). When a task is conceivably easy, anxiety doesn't appear to have much negative effect, and may actually improve the learners' performance with increased effort. In this context we often speak of an optimal level of anxiety that helps learners focus on and work through a given task. MacIntyre argues that one should also consider the possibility that anxiety has an influence on specific language activities such as listening and comprehension. He also points out that the social factors in language learning cannot be ignored, such as the interactions with teachers and fellow students, and inter-group relations. Regardless of the classroom environment or the specific learning activities, research indicates that language learners may experience unusually elevated levels of anxiety when participating in speaking activities (Horwitz, 2001).

A questionnaire distributed to participants in a study conducted by Young (1990) asked students about their general foreign language classroom anxiety and perceptions about in-class language activities. Primarily, students felt more anxious when speaking in front of others, and

less so when working in pairs or small groups. Other sources of increased anxiety were unpreparedness for class and error correction. While students reported feeling more relaxed when given practice opportunities to speak, they did not feel comfortable being called on in class, or being “put on the spot” (p. 550) in front of others. Interestingly, students reported the same level of anxiety when having to write their answers on the board. Even though no speaking was involved, the common denominator seemed to be having to perform a language task in front of a larger group of others. Based on these findings, Young suggested having students work in pairs or small groups to minimize their anxiety, and to encourage preparedness by administering short quizzes.

Another key variable tied to learner anxiety in relation to language performance, learner confidence, was emphasized in a study conducted by Matsuda and Gobel (2004). These researchers examined the relationship between specific components of language anxiety, gender, overseas experience and performance in the foreign language classroom. Participants completed the Foreign Language Classroom Anxiety Survey (FLCAS) developed by Horwitz, Horwitz and Cope (1986) to elicit students’ self-reports about their general classroom anxiety in a foreign language class. The FLCAS specifically relates to language learning experiences (MacIntyre, 1995). In Matsuda and Gobel’s study, low self-confidence in speaking English emerged as a key influence on learner’s language anxiety and also showed a significant connection to learners’ overseas experiences. The most anxiety provoking activities among the participants in this study were speaking in class and being called on by the instructor, which corroborate the findings of Young’s (1990) study. The researchers reported self-confidence measures as significant predictors of performance in both general and content-based language classrooms and called on

instructors to foster a supportive classroom environment that enhances learners' self-confidence and minimizes anxiety.

Giving learners a sense of accomplishment in the classroom by allowing them to practice in an unthreatening environment and working in small groups or in pairs should become a primary strategy for language learning (Matsuda & Gobel, 2004). A cooperative goal structure is more powerful in that it leads to less anxiety and greater task involvement (Dörnyei, 1994). Matsuda and Goble (2004) argued that student self-perceptions about what they can do relate to self-confidence which appeared to be closely related to performance in their study.

Confidence

Confidence in the language learning environment includes two components: language-use anxiety as the affective aspect, and self-evaluation of foreign language proficiency as the cognitive aspect (Dörnyei, 1994). Both aspects are captured in the FLCAS (Horwitz et al., 1986) which puts an emphasis on the strong relationship between anxiety and learner confidence. Confidence is also a major component in learner motivation models, particularly in the language classroom. Based on Keller's (1987) ARCS model of motivational design, Cookes and Schmidt (1991) proposed four motivational factors that describe foreign language learning motivation: interest, relevance, expectancy and satisfaction.

Expectancy in this context refers to the learner's perceived likelihood of goal attainment, his or her self-confidence, perceived difficulty of the learning task, the required level of effort, available support in the classroom, and the learners' familiarity with the task at hand (Dörnyei, 1994). Studies reporting on collaborative learning strategies in language classrooms regularly highlight improvements in learner confidence (Dörnyei, 1997). Students often realize that they can succeed, particularly when their class or team mates in the same learning group are also

motivated to achieve, which creates a positive interdependence between them (Kohonen & Bedley, 2006).

In a collaborative environment, students with varying levels of proficiency can benefit from their peers' responses, increase their language awareness and ultimately gain self-confidence (Swain, Brooks & Tocalli-Beller, 2002). Students are sometimes able to translate the teacher's instructions into a form of kid language in their learning groups (Kohonen & Bedley, 2006). Therefore, the learning group is generally richer in resources than the individual learner (Oxford, 1997). Development of linguistic ability occurs as the gap between individual and joint performance decreases, and learners develop increased independence (Foster & Ohta, 2005), which leads to more confidence in their own individual language abilities.

In order to build and sustain a healthy level of confidence, learners need to experience success in the learning environment and a sense of accomplishment in the attainment of learning tasks. The achievement of proximal sub-goals, indicators of progress (Dörnyei, 1994), improve the quality of the learning experience (Bernaus & Gardner, 2008). Learners are encouraged to persist (Smith, 2009), and self-confidence is increased through their own demonstration of what and how much they can already do, even at a very basic level of language proficiency (Kohonen & Bedley, 2006). Discussions during group assignments require students to explain their rationale for a particular answer and learners can receive individual feedback from peers, which further broadens their understanding. Having to articulate an answer also promotes learning (Michaelsen, 1992). In the collaborative environment, groups work toward a single product, or goal, like a single answer sheet for a given learning task, or group preparation for an exam (Dörnyei, 1997). However, our ability to influence student learning is limited if learners do not experience satisfaction related to their work (Michaelsen, 1992; Kohonen & Bedley, 2006).

Satisfaction

Learners sometimes demonstrate fluctuating levels of commitment, even within a single class period, which points to the significance of the quality of learning tasks in shaping learner enthusiasm and attitudes toward the learning situation (Dörnyei, 2003). Findings suggest that the learning situation must be valued (Tremblay & Gardner, 1995) and rewarding to the learner (Gardner, 1999). Research has demonstrated that learners will work harder and they are much more productive in group activities if they have a sense of buy-in regarding the importance of teamwork dynamics (Sibley & Parmalee, 2008). Satisfaction with group work and group processes often determine the successful implementation of collaborative strategies over time (Reining, Horowitz & Whittenburg, 2011).

Learner perceptions of the benefit of small group activities in the language classroom were the focus of a study conducted by Ewald (2004). Using a collaborative forum, students in an accelerated Spanish course and their teachers reflected on the effect of small group activities in their language classrooms. Through discussions, and after participating in a series of exploratory group activities, most students reported changing not only their initially less enthusiastic perceptions of small group work, but also their behavior. Learners reported an increased sense of community, feeling more at ease in their groups, and most expressed the desire to continue to work more productively in their groups.

Contrary to the positive perceptions found by Ewald (2004), learners enrolled in English classes at a Thai university saw little benefit to using pair or small group activities in the classroom (McDonough, 2004). The purpose of the study was to investigate learners' improved language production after pair and small group language activities. Participants' opinions about the usefulness of the activities were solicited via a short survey. Here, analysis pointed to high

and low-participation groups, where the high-participation learners clearly outperformed the low-participation group on two subsequent posttests. Despite the improved test scores, survey results indicated that learners did not deem the activities useful for language learning. They did, however, welcome the increased speaking opportunities that the pair and small group activities presented. The desire for and appreciation of speaking opportunities in small group peer interactions are consistent with an earlier study conducted by Young (1990).

This willingness to communicate in the language classroom is many times mediated by interactional contexts (Cao & Philip, 2006). These two researchers examined factors that are thought to have an influence on learners' communicative behavior in the language classroom; particularly related to whole class, small group, and pair interactions. Participants came from a small, university-based language school in New Zealand, and were observed during in-class activities. From the analysis emerged four main factors that influenced their communicative behavior: group size, confidence level, familiarity with the conversation partner, and the conversation partner's level of participation. Perceived suitability of the learning context enhanced the students' level of communication in this study. Smaller numbers of communication partners, rather than whole class discussions made participants feel more comfortable.

In a quantitative longitudinal study, Liang (2004) investigated perceptions of group learning among adult Chinese English language learners. Liang obtained mixed results and referred to them as a complex picture of group learning in the English language classroom. Participants acknowledged that their groups had come up with more ideas than they would have had they been working alone. Furthermore, working together made finding the answers faster and that results were usually better. Participants also enjoyed helping each other and liked having increased opportunities to practice English. On the flip side, participants felt that it was

sometimes difficult to come to a consensus in their groups, and that some members didn't share in the work. Many participants reported both positive and negative feelings toward group learning and found it difficult to choose between helping their team mates and demonstrating individual skill to the teacher, or sharing versus withholding information for better individual grades. These sentiments were also felt by freshmen in an introductory English course in Texas who had been given the opportunity to collaborate on part of an exam they were taking. Mostly students from Asian countries chose to work alone since they had grown up in a different learning environment. When asked about their preferences, these students stated that they felt awkward discussing answers with their classmates (Russo & Warren, 1999).

Achievement

Collaborative dialog is considered particularly beneficial in language learning (Swain et al., 2002). In these communicative settings, students engage in problem-solving and knowledge co-construction to achieve learning goals. Most notably, learners do this in the language being acquired (Foster & Ohta, 2005). These researchers argued that break-downs in communication as a result of comprehension difficulties are actually valuable in these situations, since learners repeat, check, clarify or attempt to modify their language output to make themselves understood. The learners' noticing of mismatches between their own and their communication partners' language production, and the resulting interactional feedback, have been shown to facilitate learning (Mackey, 2006). Peers draw on each other's language resources to resolve language-related problems (Storch, 2002).

While examining interaction patterns in ESL pair work, Storch (2002) found four distinct communicative groupings: collaborative, dominant/dominant, dominant/passive, and expert/novice. In her study, university students were asked to complete three different grammar-

based language tasks in pairs. Interaction patterns were relatively stable across the different tasks, and the collaborative dyads showed far more instances that suggested a transfer of knowledge took place (22 versus 15 for expert/novice, and 6 each for dominant/dominant and dominant/passive). Looking at the lower end of the spectrum, these results confirm other researchers' findings that assignment to teams or pairs alone won't necessarily always produce the desired learning outcomes (Long & Porter, 1985; Mc Groarty, 1989; Michaelsen, 1992; Donato, 1994). In the collaborative and expert/novice dyads, learners seemed to be more positively disposed to working in pairs and were actively scaffolding, or assisting, each other, leading to the "co-construction of knowledge about language" (p.148) which would subsequently be internalized by the members. In contrast, the dominant/dominant and dominant/passive dyads sought little input from each other, nor did they negotiate potential solutions to reach a consensus. These results suggest that other factors beyond proficiency differences may also have an impact on the nature of collaborative dialogue.

In a study conducted by Watanabe and Swain (2007), researchers investigated the effect of proficiency differences and patterns of pair interactions on language learning among a small group of Japanese college-level English language learners. Core-participants, who were the focus of the study, interacted with two other participants that had higher and lower proficiency levels than themselves. Language tasks included pair writing, a pair comparison and an individual writing assignment. The initial pair writing was considered the pretest and the individual assignment the posttest. Researchers referred to the collaborative dialogue that occurred between participants as language related episodes (LREs), a term commonly used in the second language acquisition literature to describe instances where learners discuss their language use. Posttest results showed that core participants actually achieved slightly better scores when working with

their lower-proficiency partners. Modeling Storch's (2002) patterns of pair interaction, Watanabe and Swain identified collaborative, expert/novice, dominant/passive and expert/passive pairings in their study. Participants with some of the highest posttest scores were actually in the expert/novice dyads. These findings add credibility to the assertion that successful scaffolding occurs not only between teacher and student, but also between fellow language learners (Long & Porter, 1985; Kohonen & Bedley, 1992; Donato, 1994). Learning activities in the language classroom should therefore encourage such language production among peers.

Participants from an ESL program at a university in Australia worked through grammar-focused exercises individually and in pairs in a study conducted by Storch (1999). The researcher examined whether students working in pairs discussing their answer choices led to more accurate language output than when they were completing similar tasks individually. During two separate sessions, Storch used three different activities that are commonly used in the language classroom. Findings indicated that in each one, participants produced overall more accurate language output in collaboration than they did individually. Of note here is that the time it took participants to complete the activities almost doubled during collaboration, which may also have had an influence on the accuracy of the participants' responses. Transcripts of the participants' pair interactions, as well as observation notes indicated that learners appeared to be more focused on grammatical accuracy when working through the activities together, as a team.

The learners' focus on accuracy also becomes critical during the assessment process, which is still very much a reality in the classroom environment. One of the most important influences of the learners' experiences in higher education is academic achievement, and the greater the achievement, the more committed students tend to be (Johnson, Johnson & Smith, 1998).

Practice Quizzes

The assessment process can be very effective in student learning when certain conditions are in place. The trick is to engage students in the learning tasks, and to focus their efforts to help maximize the grades they achieve in class (Gibbs & Simpson, 2004). Practice tests, or short quizzes appear to be particularly effective in providing learners with up-to-date feedback about their content knowledge without the added pressure of having to obtain high scores. As such, the quizzes take on the role of formative assessments, and can be used as a learning opportunity (Pandey & Kapitanoff, 2011), since not all assessment of student learning has to be graded (Whetten, 2007). These assessments also give students the opportunity to practice dealing with similar situations they will encounter at a later time (Michaelsen, Watson & Black, 1989; Michaelsen, 1992), and it simulates an actual testing experience, particularly when questions are conceptually related to those in an upcoming exam (Pillotti, Chodorow & Petrov, 2009). Completing these practice tests in collaboration with others can lead to one's own recognition of knowledge gaps through discussions with team mates, and can serve as a powerful motivator for students to remain focused on learning goals (Sibley & Parmalee, 2008). It is a sign of true learning when students are able to explain content and teach their classmates, while being engaged in meaningful discussions (Yelcur, 2005; Philip & Cao, 2006). Having to articulating their rationale using new vocabulary and lesson content during discussions may present important retrieval cues for students to help them remember information during an actual exam (Kapitanoff, 2009).

Taking the argument for the benefit of practice exams a step further, Karpicke and Roediger (2007) asserted that multiple retrieval practice opportunities that are part of the learning process facilitate retention. Research has repeatedly demonstrated that testing

instruments themselves not only measure learning, but also enhance it (Gibbs & Simpson, 2004; Shute, Hanson & Almond, 2008). Over time, this phenomenon leads to improved academic performance. Testing at the college level often includes a variety of multiple-choice formats (Roediger & Marsh, 2005; Pilotti et al., 2009). Multiple-choice tests, referred to by Whetten (2007) as an “assessment workhorse” (p. 349), are easy to grade, but in most cases the only feedback students receive about their test performance is an overall score, hence potentially leading to fossilization of incorrect information (Epstein, Brosvic, Calvano, Epstein, Hendel, Lazarus & Matthews, 2002).

One way to capitalize on the user-friendliness of multiple-choice tests, and to maximize the learning effect of this type of exam in a collaborative setting, is to provide immediate feedback to students. Researchers have argued that some of the pedagogical value of quizzes is lost because students often do not receive immediate feedback (Rao, Collins and DiCarlo, 2002). In traditional multiple-choice tests, one answer is sometimes related to another earlier or later question on the test, so an incorrect response to one question would likely lead to another incorrect response later. As such, this process neither facilitates learning nor does it promote retention (Epstein et al., 2002). Students are often unsure about whether the thought process behind an answer was correct or not (Rao, Collins and DiCarlo, 2002).

By using an immediate feedback assessment technique (IF AT) (Epstein, Epstein & Brosvic, 2001), following an answer-until-correct format, retention of repeated items is enhanced, particular for those questions that were initially answered incorrectly. This technique includes special answer sheets that function similar to traditional multiple choice Scantrons, but the individual answer choices on an IF AT sheet are covered by a thin gray film, much like a lottery scratch-off ticket. Learners choose an answer, and scratch off the corresponding letter,

either a, b, c or d. If learners scratch off a field and find a star, the answer is correct; if not, learners try again, until they find the star and thus the correct answer.

Immediate Feedback Assessment Technique

The availability of immediate feedback using the IF AT emerged as a superior test preparation strategy in a study conducted by Dihoff, Brosvic, Epstein and Cook (2004). Undergraduate students completed six multiple choice practice quizzes and six classroom exams in preparation for a final test. Students in a control group received no immediate feedback, using Scantrons only. Results showed that the likelihood of responding correctly to initial and subsequent exam questions was greater when feedback was provided during each practice test. Through immediate feedback, participants were able to remember more of their earlier correct and incorrect responses. Recurrence of incorrect responses during subsequent tests was lowest when immediate feedback was provided during each practice quiz.

Error correction leading up to a final exam was examined in a laboratory setting using Esperanto vocabulary (Brosvic, Epstein, Dihoff & Cook, 2006). Undergraduate participants enrolled in liberal arts and science courses completed five instructional units consisting of formal lectures, small group activities, lesson reviews and quizzes, culminating with a cumulative multiple choice final exam. Feedback conditions included traditional Scantrons, 24-hour delayed feedback, end of test feedback, and the Immediate Feedback Assessment Technique (IF AT) answer sheets. Based on the accuracy of participants' initial responses during lesson quizzes, final exam results showed that immediate feedback, coupled with the availability of iterative responding, was superior to the other feedback methods.

In a business course at an Australian university, students completed multiple choice quizzes individually and retook the same quiz again, collaborating with their assigned teams

using IF AT answer sheets. Blackman (2012) observed active student engagement with deep discussions during the group task, and the teams' scores were higher than the individual ones. The course's pass/fail rate had dropped from 5 percent to 1 percent after the implementation of this testing process. In an end-of-course survey, students pointed to the assessment approach as the best feature of the course, and attributed the success of this approach to their positive group dynamics and the immediate feedback they received. Acceptance of the IF AT format is largely independent of test performance (DiBattista, Mitterer & Gosse, 2004), and this format has shown a positive effect on learners' anxiety (DiBattista & Gosse, 2006). Learners have reported repeatedly that one of the most attractive features of this answer sheet is the fact that they find out the right answer to every question instantly, which directly contributes to their learning (DiBattista, Gosse, Sinnige-Egger, Candale & Sargeson, 2009).

Summary

Collaborative learning strategies have been researched extensively in a variety of academic disciplines, including the language classroom. Many scholars consider language learning a complex and unique challenge, primarily due to the inherent social and cultural aspects associated with it. The development of strong interpersonal skills and the ability to work together effectively to accomplish a shared task are two of the main goals collaborative strategies seeks to achieve. These two traits have been identified as potentially beneficial to language learners from a variety of educational and cultural backgrounds, far beyond the language classroom. Previous research on the subject has largely been conducted in laboratory settings, and combining collaboration with practice exam strategies in an attempt to enhance performance has only received limited attention in language learning research. The results of the current study will add to the literature about collaborative practice strategies in a language learning context.

The research questions and hypotheses that guided this study were:

- 1.) What is the effect of Collaborative Assessment Preparation on learner confidence, satisfaction and achievement, as compared to the traditional learning strategy used in an intensive adult ESL classroom at DLI?
- 2.) How does language anxiety relate to learner confidence, satisfaction and achievement in this setting?
- 3.) How do participant scores on the English Comprehension Level exam relate to learner confidence, satisfaction and achievement in this setting?
- 4.) What is the relationship between learner confidence and achievement in this setting?

Research Hypotheses

- 1.) Using Collaborative Assessment Preparation in an intensive adult ESL classroom at DLI will have a significant positive effect on learner confidence, satisfaction and achievement.
- 2.) Language anxiety will have a significant negative relationship with confidence and achievement.
- 3.) English Comprehension Level exam scores will have a significant positive relationship with confidence and achievement.

CHAPTER 3

METHOD

Participants and Setting

There were 100 students from 16 different General English classes who volunteered to participate in this study. The group included 98 males and 2 females from 21 different countries. Traditionally, the number of male students enrolled at DLI is far greater than the number of female students, so this gender difference was not surprising. Scheduling conflicts like flight physicals, meetings with Country Program Managers, and other military training priorities resulted in 25 volunteer participants missing key events in the data collection process. Therefore, data from a total of 76 participants were included in the final subject pool. Of these, 37 were officers and 39 were enlisted members. English language proficiency levels at the beginning of the study varied, but all participants had taken DLI's comprehensive English Comprehension Level (ECL) exam prior to implementation of the instructional intervention. Upon arrival at DLI, students are usually placed in a particular class based on their entry English Comprehension Level scores.

Most of the participants were in the U.S. for the first time and continued on to follow-on occupational specialty training upon graduation from DLI. The majority of participants in the current study (76%) were native Arabic speakers, which was a reflection of the overall student demographic make-up at DLI. At the time of my data collection, 74% of students enrolled at DLI were from Arabic-speaking countries. Other prevalent native languages among participants were Dari (6%) and Russian (5%). The length of time each participant had been enrolled at the Center varied from less than a week to several months, as there are no set start dates for General English courses.

Participating General English instructors (n = 16) were native English speakers, U.S. government civilian employees, and had been teaching at DLI from 4 months to 5 years. All instructors had degrees in education-related disciplines and completed formal training as English as a Second Language teachers. Instructors also had extensive overseas English teaching experience in Europe, the Middle East and Far East Asia.

Materials

The instructional materials I used in this study were part of the American Language Course (ALC), a book series developed in-house at the language center. All students and instructors at DLI are required to use these books in their General English classrooms. The entire course consists of 34 different books (1 – 34), ranging from an Elementary to an Advanced Professional level of instruction (Defense Language Institute English Language Center, 2008). Each book has four lesson sections, consisting of vocabulary and grammar activities, as well as homework assignments and evaluation exercises. Books are taught over the course of either one or two weeks, culminating with a comprehensive, standardized, computer based multiple-choice book quiz. In this study, I used six different intermediate-level, one-week books (20, 22, 23, 24, 28 and 29). Books used in the treatment group corresponded with the books in the control group.

Other materials included the Foreign Language Classroom Anxiety Scale (FLCAS) to measure participants' level of language anxiety at the beginning of the study, the English Comprehension Level exam, practice quizzes, the Immediate Feedback Assessment Technique (IF AT) answer sheets for the practice quizzes, standardized book quizzes, and the Confidence and Satisfaction scales of Keller's (1987) Instructional Materials Motivation Survey (IMMS).

Foreign Language Classroom Anxiety Scale

The Foreign Language Classroom Anxiety Scale (Horwitz, Horwitz & Cope, 1986) is a 33-item, five-point Likert-type survey that asks participants to respond to statements like “In language class, I can get so nervous I forget the things I know,” or “It embarrasses me to volunteer answers in my language class” (see Appendix A). The alpha reliability value for this scale was reported as .96 (Panayiotis & Walker, 2013).

English Comprehension Level exam

The English Comprehension Level (ECL) exam is an in-house developed, computer-based, multiple-choice proficiency exam that students have to pass in order to graduate from DLI, or to be able to enroll in one of the many specialized English courses DLI offers. This exam is also used as a placement test for new arrivals at the Language Center. The test consists of listening and reading comprehension questions that are based on vocabulary and grammar covered in the American Language Course. The time it takes students to complete this test varies, as questions adapt to the students’ answer patterns. In a comparison study of the equivalence of different forms of the ECL, internal consistency reliability ranged from .96 to .97 (Henning, Johnson, Boutin & Rice, 1994).

Practice Quizzes

Practice quizzes that I gave to participants in the experimental group contained 25 multiple choice questions that were based on existing evaluation exercises in the back of each book (see Appendix B for a sample). I took the verbiage of the quiz questions and the answer choices verbatim from each respective book, but re-arranged them to match the IF AT answer sheets that participants in the treatment group used to answer the questions. Each practice quiz included questions from every section of the book, but I did not reuse any questions from the

first quiz in subsequent practice quizzes for any of the book. Each quiz began with six listening questions that the instructors read to their classes. The question format of all practice quiz questions mirrored that of the respective standardized book quizzes. Following the listening portion, students continued answering the remaining questions. They did so individually at first, then again with an instructor-assigned classmate using a special multiple choice answer sheet called the Immediate Feedback Assessment Technique.

Immediate Feedback Assessment Technique

The Immediate Feedback Assessment Technique (Epstein, 2012) answer sheets are similar to the traditional multiple choice answer formats, prompting students to select either a, b, c or d. What makes these answer sheets different is that the answer choices are covered by a thin gray film that learners have to scratch off (see Appendix C). The purpose behind this scratch-off process is that students get instant feedback about the correctness of their answers. If a small star appears in the letter column after they have removed the thin film, the answer is correct. If there is no star, the answer is incorrect and the student can try again. For example, even if it takes someone four tries to get the right answer, students never move on the next question without knowing the correct answer.

Book Quizzes

Book quizzes I used in this study were Language Center-developed, computer-based assessments consisting of 50 multiple choice questions covering only book content (25 listening and 25 reading comprehension questions). Students took these book quizzes individually in a centralized computer lab after they had gone through the entire book.

Confidence and Satisfaction Scales

The Confidence and Satisfaction scales were adapted from Keller's (1987) Instructional Materials Motivation Survey and together consisted of 14 five-point Likert-type survey questions that asked students to rate to what extent statements like "The activities in this book were too difficult" or "Completing the in-class activities this week gave me a satisfying feeling of accomplishment" were true or not true (see Appendix D). In previous research, the reliability of these confidence and satisfaction scales was reported as .77 and .87 respectively (Klein, 1988; Klein & Keller, 1990).

Procedures

One week prior to the beginning of data collection, I solicited volunteers from the General English instructor population at the English Language Center via e-mail through DLI's Chief of General English. Participating instructors and attended a 30-minute introductory workshop where I explained their responsibilities during data collection and the associated steps in the process. This workshop took place in a DLI conference room one week before the beginning of in-class activities, at the end of a teaching day, during regularly scheduled duty hours. During this workshop I demonstrated the use of the IF AT answer sheets with the practice quizzes so that the instructors could familiarize themselves with the process before administering the practice quizzes to their students in their respective classrooms.

Using a current enrollment report, I identified the number of potentially available classes for my study and assigned those classes randomly to either the control or experimental group. Classes taught by participating instructors were randomly assigned to the treatment or control groups. Nine classes were assigned to the treatment and seven classes were assigned to the control condition. After all classes were assigned, I built a schedule for classroom visits to introduce myself to the students, and to ask them if they were interested in participating in the

study. At that time, those students who were interested signed their respective informed consent forms and completed the Foreign Language Classroom Anxiety Survey (FLCAS).

In order to minimize the chance of misunderstandings, I had survey instruments and informed consent forms translated into Arabic, Dari, Russian, Spanish and French and made them available for the students to use as a reference. These are the most prevalent native languages spoken by students at the Language Center. Documents were, however, completed in English. A break-down of the different classes, the final participant numbers, and the different books I used is presented in Table 1.

Table 1

List of Books, Number of Classes, and Number of Participants by Group

Book	Number of Classes	Number of Participants	
		Experimental	Control
20	4	9	9
22	2	6	6
23	3	12	4
24	2	4	5
28	3	9	5
29	2	3	4
Total	16	43	33

In-class data collection took place over a period of one week. Figure 1 shows a diagram of the different data collection events.

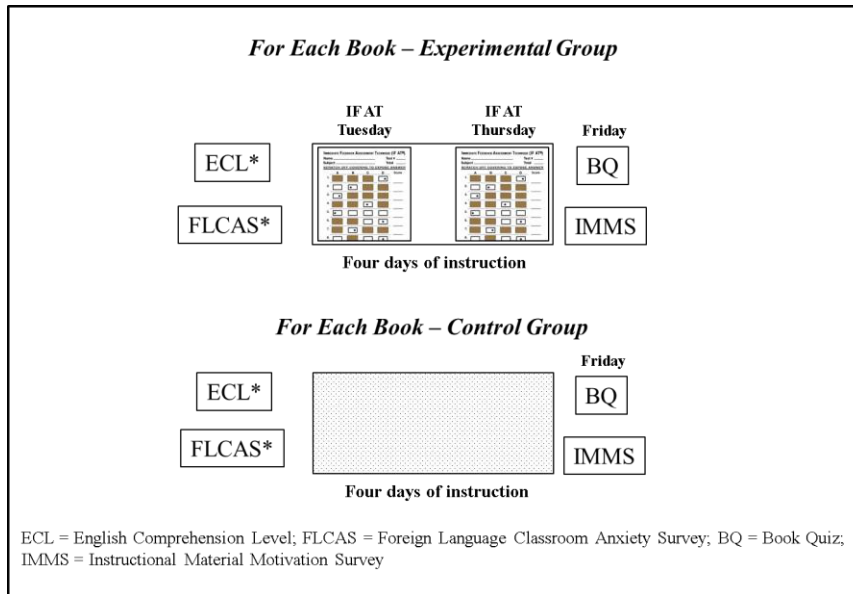


Figure 1. Data Collection Events

On day one of in-class activities, Monday, students in all treatment and control group classes received regularly scheduled lessons for their assigned ACL books. All students began the week with a new book. Instructors in both groups started by introducing new vocabulary in the first section of the book. Instructors worked through grammar and vocabulary exercises by demonstrating examples and explaining concepts. Students took turns answering exercise questions in the book. The goal was to get through the first of the four lessons on day one, since the entire book had to be covered during that week. Homework exercises in the back of the book were assigned at the end of each day and were reviewed by the instructors the following day. Figure 2 shows a side-by-side comparison of classroom activities in both the experimental and control groups. The chart shows that the only difference between the two groups was the

administration and completion of the practice quizzes and receiving immediate feedback using the IF AT answer sheets.

Table 2

Side-by-side Comparison of Classroom Activities

	Control Group	Experimental Group
• Six class periods per day (Mon – Thu); four class periods on Fri.	x	x
• Two class periods of language lab per week	x	x
• Homework activities assigned from the book	x	x
• Homework reviewed and corrected in class	x	x
• Book exercises completed by students	x	x
• Students took turns reading and answering exercise questions from the book; instructor feedback either verbal or via SMART board	x	x
• Book Quiz in the language lab on Friday	x	x
• 25-question practice quizzes; immediate feedback		x
○ Completed individually and with a partner		x
○ Students get immediate feedback with IF AT		

On day two, Tuesday, students in the treatment group took their first practice quiz, while the control group continued with their regular lesson plans. Treatment group instructors told participants that they were going to complete the quiz individually, marking their answers directly on the quiz forms. This took faster students about 10 minutes, but everybody was able to complete the individual quizzes in less than 25 minutes. Upon completion of this activity, the instructor collected all individual quizzes without discussing any of the answers. Instructors randomly assigned student pairs and told students to sit with their partners during the collaborative activity. If student numbers in class were uneven, there would be one student team of three. This was the case in 8 of the nine experimental group classrooms.

Once partners were in place, each team received one copy of the same quiz again. Student teams also received one IF AT answer sheet and instructions from the teacher on how to complete it. Teams collaborated to complete the quiz again, which took up the remainder of the first class period. The instructors collected the IF AT answer sheets and allowed students to go on their regularly scheduled break. Instructors kept all quiz materials in a dedicated folder containing class rosters, blank and completed quiz forms, and answer sheets. Instructors continued with their lesson plans as scheduled for the remainder of the day. Participants were assigned codes and their quizzes, scores and survey data tracked in this way to protect the identity of each student. One example of a participant code was W29C1, where W was the first initial of the instructor's last name, 29 was the book that was taught during that week, the C identified the control group, and number 1 represented the participant's place on the course roster.

On the third day, Wednesday, classes in both the control and experimental groups again followed the regular lesson plans for that particular day. On day four of the study, Thursday, participants in the treatment group took their second practice quiz, following the same procedure as before. Since the administration of the practice quizzes did not have to be completed during the first class period, instructors had the flexibility to do it at any time throughout the day. This way I was also able to observe each instructor one time during the administration of one of the practice quizzes. In addition to classroom lectures, all students are scheduled for two language lab periods during the week, but the exact days and lesson periods varied. The language lab schedule during this particular week remained as it normally would have been for both the experimental as well as the control group students. Table 2 shows an overview of class start times and an example of scheduled activities during the data collection period.

Table 3

Class Schedule and Activities

Times	<u>Day of the Week</u>				
	Monday	Tuesday	Wednesday	Thursday	Friday*
0730 – 0825	Lecture	Lecture	Lecture	Lecture	Survey
0835 – 0935	Lecture	<i>Practice Quiz</i>	Lecture	Lecture	Review
0955 – 1050	Lab	Lecture	Lab	Lecture	Book Quiz
1100 – 1155	Lecture	Lecture	Lecture	<i>Practice Quiz</i>	Lecture
1155 – 1255	Lunch	Lunch	Lunch	Lunch	Lunch
1255 – 1335	Lecture	Lecture	Lecture	Lecture	No Class
1345 – 1435	Lecture	Lecture	Lecture	Lecture	No Class

* Class period start times on Fridays differ slightly because of the administration of the book quizzes. There are no classes scheduled on Friday afternoons.

On day five, Friday, participants in both the treatment and control group completed the Instructional Materials Motivation Survey sub-scales prior to taking their book quizzes. All participants then completed their book quizzes in the centralized computer lab, as scheduled. To ensure academic security, all students taking the same book always take the quiz at the same time. The computer lab is located in the same building as the General English classrooms, and students are assigned individual computer terminals to complete their book quiz. Results were available to the instructors after completion of everyone's test, and they shared them with their students in accordance with DLI policies.

I solicited three volunteers from among the instructors in the experimental group to interview after the last day of data collection. We agreed to conduct the interview as a group in

one of the classrooms behind closed doors and the instructors gave me permission to record it. Questions I asked the instructors to comment on included, whether they perceived a change in their students' level of engagement in the classroom during the week; what would make them want to continue using this collaborative strategy in their classrooms; and what they may have perceived as less effective regarding the use of this strategy in the General English classroom (see Appendix E). I also sent my interview questions to all participating experimental group instructors asking for their feedback in writing. I received comments from six instructors, including one that I had also interviewed in person.

Design and Data Analysis

This study followed a quasi-experimental design with treatment and control groups in a natural classroom setting. My independent variable was the instructional strategy with two levels: the traditional DLI approach used in the control group, and the collaborative preparation approach used in the experimental group. The participants' level of foreign language classroom anxiety and their English Comprehension Level exam scores functioned as status variables. My three dependent variables were: confidence and satisfaction (as measured by the IMMS subscales) and the participants' individual book quiz scores.

Power Analysis

I conducted a power analysis of a one-tailed exact test of the correlation between learner confidence and book quiz scores, which were normally distributed. I used an effect size of $\rho = .3$ which is considered a medium effect, and set α to .05. Using the program G*Power 3.1.3 (Faul et al., 2007), the analysis indicated that the power of .80 can be obtained with a sample size of $n = 67$. Allowing for a non-response rate of 10%, I needed a sample size of 75 participants (see

Appendix F). The same minimum sample size would be necessary to achieve a power of .80 for the correlation test between learner satisfaction and book quiz scores.

I also conducted a power analysis for an F test of the differences between the treatment and control group in a multiple analysis of variance (MANOVA). I used a medium effect size of $f = .25$ and set α at .05, with two groups. To obtain a power of .80 I needed a sample size of $n = 48$. Allowing for unusable data from about 10% of participants, a sample size of 53 participants would have been sufficient for this F test.

A power analysis for a t-test of the mean differences between two independent means, using an allocation ratio of 1, showed a required total sample size of $n = 102$ ($n_1 = 51, n_2 = 51$) to obtain a power of .80. I used a medium effect size of $f = .25$ and set α at .05. Allowing for about 10% of unusable participant data, I had aimed for a total sample size of 110 participants for this study.

Data Analysis

I calculated the mean scores of all participants' most recent English Comprehension Level exam and the Foreign Language Classroom Anxiety score for each group before implementation of the treatment. I also conducted a t-test of mean differences between these two independent group means to determine if the two groups were statistically equal on these two measures before the treatment.

After implementing the treatment, I used multiple analysis of variance (MANOVA) to compare mean scores of my outcome variables confidence, satisfaction and achievement between the two groups. I computed the correlation values for my outcome variables learner satisfaction and achievement, as well as the correlation values for my outcome variables learner confidence and achievement for participants in both the treatment and control group.

I standardized my participants' book quiz scores by turning them into z-scores. In this study I used six different American Language Course textbooks with accompanying book quizzes, so not all book quizzes covered the same course material. By standardizing the quiz scores I was able to compare quiz performance of my experimental and control groups as a whole, as well as obtain achievement values I could use for my correlation calculations.

I identified themes among the participants' responses to the open-ended questions that are part of the IMMS sub-scales. I also identified themes among the instructor responses to the interview questions. This helped me to determine perceptions toward the use of this collaborative assessment preparation strategy in the General English classroom at DLI.

To get a better understanding of what occurred in the classroom during lecture time, I conducted classroom observations in both control and experimental group classes for each book, focusing on student engagement, on-task behaviors and feedback to student questions. I also kept track of the time it took for students to complete the quizzes individually and with their partners, as well as the amount of time spent on homework review, and new vocabulary/grammar concepts. Observations in experimental group classrooms were limited to the two days when instructors were administering the experimental treatment. I pre-arranged these observations so I could ensure that I visit the classrooms during the period when participants completed the activity. Classroom observations in the control group classes occurred throughout the week, and instructors only knew that I was coming to observe, but not during which period. (see Appendix G for the observation protocol.)

CHAPTER 4

RESULTS

In this chapter I present the results of my study. I have included general descriptive statistics of my outcome measures of confidence, satisfaction and achievement, as well as my status variables, the English Comprehension Level (ECL) exam and the Foreign Language Classroom Anxiety Survey (FLCAS). For all my statistical analysis I used SPSS version 20, and set the alpha level at .05. I conducted a multivariate analysis of variance (MANOVA) to answer research question 1, and I calculated the Pearson product-moment correlation to answer research questions 2 – 4. Qualitative elements of my results include student responses to the three open-ended IMMS survey questions, instructor perceptions obtained in writing and during face-to-face interviews, as well as classroom observations.

General Descriptive Statistics

I collected complete sets of data from 76 student participants, 43 in the experimental group and 33 in the control group. Table 4 shows a summary of means, standard deviations and ranges for test scores and survey results. An independent sample t-test of mean differences between the control group and the experimental group showed that there was no statistically significant difference for ECL score, $t(74) = -.87, p > .05$, and no statistically significant difference for FLCAS, $t(74) = 1.55, p > .05$. Therefore, on these two pre-treatment measures, both group means were statistically equal.

Table 4

Descriptive Statistics for Experimental and Control Groups

Group	Measure	N	Mean	Range	Std. Deviation
Treatment	ECL	43	68	39 - 89	11.05
	FLCAS	43	2.69	1.66 - 4.06	.50
	Book Quiz	43	86	62 - 98	8.23
	Confidence	43	3.65	2 - 5	.67
	Satisfaction	43	3.74	1.67 - 5	.94
Control	ECL	33	71	49 - 93	10.12
	FLCAS	33	2.52	1.82 - 3.52	.44
	Book Quiz	33	87	72 - 100	7.55
	Confidence	33	3.72	2.38 - 5	.65
	Satisfaction	33	3.76	2.17 - 5	.93

Note: The maximum and minimum scores: ECL (0 - 100); FLCAS (1 - 5); Book Quiz (0 - 100); Confidence (1 - 5); Satisfaction (1 - 5)

Since I used six different text books in my study, participants didn't all take the same book quizzes. The format of the book quizzes was the same; however, the content was based on each different textbook, which made the comparison of book quiz scores between treatment and control group impossible. To remedy this, I standardized book quiz scores by converting them to z-scores. In the Pearson product-moment correlation calculations, I used only z-score values when including achievement measures. Examination of histograms of my data points suggested that an underlying assumption of the Pearson correlation significance test, normal distribution of the data, had been met. I interpreted the correlations as follows: weak (< .29), moderate (.30 to .49), and strong (> .50), (Laerd Statistics, 2013).

Research Question 1

What is the effect of Collaborative Assessment Preparation on learner confidence, satisfaction and achievement, as compared to the traditional learning strategy used in an intensive adult ESL classroom at DLI?

I ran a multivariate analysis of variance (MANOVA) to examine the main effect of instructional strategy with my two levels, Collaborative Assessment Preparation versus DLI's traditional instructional strategy, on my three outcome variables of confidence, satisfaction and achievement. Three assumptions have to be met for this type of analysis: (1) normal distribution of the data within the groups; (2) equality of variance of the outcome variables, and independence of data points across the groups. Examination of the histograms showed that the dependent measures appeared to be normally distributed. A Levene's test of equality of error variance, shown in Table 5, confirmed that the second assumption had also been met. I confirmed the independence of my data points and ran my MANOVA.

Table 5

Levene's Test of Equality of Error Variance

	F	df1	df2	Sig.
Confidence	.113	1	74	.738
Satisfaction	.018	1	74	.893
z-score (Book Quiz)	.113	1	74	.738

Results of the MANOVA showed that there was no significant main effect for the between-subjects variable of instructional strategy on my outcome measures, $F(3, 72) = .20$, $p = >.05$; Wilk's $\lambda = .992$, $\eta^2 = .008$, $power = .09$. Research hypothesis one proposed that Collaborative Assessment Preparation in an intensive adult ESL classroom at DLI would have a

significant positive effect on learner confidence, satisfaction and achievement. Results of the MANOVA did not support this hypothesis.

Research Question 2

How does language anxiety relate to learner confidence, satisfaction and achievement in this setting?

Examination of the overall relationship between language anxiety and confidence, satisfaction and achievement revealed that there appeared to be moderately strong and significant negative relationships between language anxiety and confidence, $r(74) = -.41, p < .01$, as well as language anxiety and satisfaction, $r(74) = -.31, p < .01$. The correlation between anxiety and achievement was weak and not significant, $r(74) = -.14, p > .05$ (see Table 6). Table 6 shows the correlation matrix for language anxiety, confidence, satisfaction and achievement for all participants. Research hypothesis two proposed that foreign language anxiety would have a significant negative relationship with confidence and achievement. This hypothesis was confirmed for the outcome measure confidence, but not for achievement.

Table 6

Overall Correlations between Anxiety and Confidence, Satisfaction and Achievement

		Confidence	Satisfaction	Achievement
Anxiety	Pearson Correlation	-.411**	-.314**	-.143
	P-value	.001	.006	.216
	N	76	76	76

** Correlation is significant at the .01 level (2-tailed).

Research Question 3

How do participant scores on the English Comprehension Level exam relate to learner confidence, satisfaction and achievement in this setting?

When I examined the relationship between the ECL and learner confidence, I found that the correlation between these variables was weak and not significant, $r(74) = .20, p > .05$. The correlation between ECL score and satisfaction was also weak and not significant, $r(74) = .05, p > .05$. However, the correlation between ECL score and achievement was moderately strong, $r(74) = .43, p < .05$. Table 7 shows the correlation matrix for ECL score, confidence, satisfaction and achievement when participants used the collaborative (treatment), as well as traditional (control) activities in the classroom. Research hypothesis three proposed that English Comprehension Level scores would have a significant positive relationship with confidence and achievement. Results did not support this hypothesis for the confidence measure, but the results for the achievement measure confirmed this relationship.

Table 7

Correlations between ECL and Confidence, Satisfaction and Achievement

		Confidence	Satisfaction	Achievement
ECL,	Pearson Correlation	.196	.046	.428**
Treatment	P-value	.090	.695	.001
Group	N	76	76	76

** Correlation is significant at the .01 level (2-tailed).

Research Question 4

What is the relationship between learner confidence and achievement in this setting?

Examining the Pearson correlation for my variables of confidence and achievement, I found that the relationship was moderately strong, $r(74) = .33, p < .05$. Table 9 shows the correlation matrix for the variables confidence, satisfaction and achievement when learners worked through the collaborative (treatment), as well as the traditional (control) classroom activities.

Table 8

Correlations between Confidence, Satisfaction and Achievement

		Satisfaction	Achievement
Confidence, Treatment Group	Pearson Correlation	.623**	.327**
	P-value	.001	.004
	N	76	76

** Correlation is significant at the .01 level (2-tailed).

Additional Findings

Learner Perceptions. I obtained qualitative data from students in the experimental group by asking them three open-ended questions on the IMMS. The first question was - *What was the most enjoyable part about working through the quizzes with your partner?* A total of 36 responses were obtained and analyzed and three themes emerged: (1) Collaboration/Discussion; (2) Feedback; and (3) Learning from Mistakes. The second open-ended question asked - *What was the least enjoyable part about working through the quizzes with your partner?* A total of 34 responses were obtained and analyzed and two themes emerged: (1) Making Mistakes; and (2) Disagreements. However, many participants (N = 14) responded to this question with answers

such as “Nothing” or “Everything was good.” The last open-ended question asked - *How did working through the practice quizzes help you prepare for the book quiz?* A total of 33 responses were obtained and analyzed and two themes emerged: (1) Content Reinforcement; and (2) Learning from Mistakes. Table 9 shows examples of participant comments by theme and question. The coding scheme I developed for participant responses is in Appendix H.

Table 9

Participant Comments by Question and Theme

Question	Theme	Example of Participant Comments
<i>What was the most enjoyable part about working through the quizzes with your partner?</i>	Collaboration/ Discussion	Explain to each other how to solve the question It was interesting when we discuss with each other When I discussed with my partner about our answers To have some answer and to discuss another answer Discussing and comparing the answers We discuss together; also work like a team You can get ideas from your partner in the quizzes Discuss with your partner which answer is correct Share ideas and opinions to get the answer
	Learning from Mistakes	To know what was error and why Reasons to choose the answer Opinion and discussion why that one is correct We correct each other When we talk about the mistakes It's good to correct myself or my friend and know the right answer
	Feedback	When we scratch off the correct answer Knowing the correct answer from the answer sheet I was eager to find the correct answer to see my level The anticipation of knowing the correct answer Finding the correct answer

Table 9 - continued

Question	Theme	Example of Participant Comments
<i>What was the least enjoyable part about working through the quizzes with your partner?</i>	Making Mistakes	When my answer is wrong and my partner is wrong I think when I'm wrong When I make a mistake When we scratched off the wrong answer
	Disagreements	Discuss which answer was correct, we argue about that The disagreement in solving the answers When our answers were different from each other
<i>How did working through the practice quizzes help you prepare for the book quiz?</i>	Content Reinforcement	Help me in the processing of some of the words By repeating the questions over and over It makes me remember the vocabulary and grammar Helps strongly to acquire grammar and vocabulary It makes me review the vocabulary Lots of practice quizzes are helping to save vocabulary and practice for grammar It helped me in everything because it is easy to learn and memorize It helped me to brush up my mind
	Learning from Mistakes	It shows me my mistakes and how to understand the question easily Learned my mistakes so I can avoid them on the test I learn from my mistakes to improve We found out the mistakes and corrected each other When you make a mistake you will remember this mistake and you will remember the correct answer Knowing my mistakes and getting to know my shortcomings to prepare well for the test

Note: Corrected spelling errors of participant comments

Instructor Perceptions. I also obtained qualitative data about instructor perceptions by asking seven questions to nine different instructors who implemented the experimental treatment in their classes. A summary of these findings is presented below.

- *How did you perceive the pair/team interaction during the partner activity (practice quizzes)?* Analyses of instructor responses to this item revealed two themes:

(1) Collaboration & Discussion; and (2) Students Having to Justify Answers. The following examples represent these two themes:

- Students had a chance to exchange their opinions.
- It required them to verbalize and justify their responses.

- *What were some of the desirable or undesirable features of this Collaborative Assessment Preparation in your classrooms?* Analysis of the responses addressing desirable features revealed three themes: (1) Immediate Feedback; (2) Active Engagement; and (3)

Confidence. The following examples represent these themes:

- Checking their comprehension with the instant feedback
- Class stayed focused the entire time
- Students seemed more confident in their vocabulary knowledge

Analysis of undesirable features instructors mentioned revealed one theme: More time.

The following examples represent this theme:

- The length of time it took to complete a very short test
- Students finished the quiz at different times, waiting around with nothing to do
- Took away from class time that we needed to prepare

- *What would make you want to continue using this preparation strategy in your classroom?* Analysis of the instructor responses revealed one theme: More time. The

following examples represent this theme:

- Would like to use it but during one-week books time is constrained
- Might work best for two-week books.

- *How would you describe your students' level of engagement this week?* Analysis of instructor responses revealed two themes: (1) Active Engagement; and (2) Little Interest. The following examples represent these two themes:
 - They were highly engaged; 80% participation
 - Students close to graduating didn't have much investment in learning the material
- *How could this strategy be modified to better fit the DLI classroom environment?* Analysis of instructor responses revealed two themes: (1) Games; and (2) Content. The examples given below represent these two themes:
 - Competition among pairs to see who had the least number of scratch-offs
 - As a study instrument with a little more variety of mixed levels
- *How could the strategy be improved in general?* Analysis of responses suggesting strategy improvements revealed two themes: (1) Time; and (2) Content. Examples of responses representing these themes are given below:
 - A set time each day, or twice per week
 - Don't use the same wording as the questions from the book
- *How would you describe your students' reaction to the immediate feedback they received during the partner activity?* Analysis of instructor responses revealed one theme: High-level receptiveness. Examples of instructor comments that represent this theme are:
 - Students were pleased to know the correct answers right away
 - The activity worked well because students learned from their mistakes
 - They were very receptive of this activity

Classroom Observations

I also conducted classroom observations in all nine experimental classrooms and all seven control group classrooms. The observation protocol I used included six different focus areas in the experimental group: (1) Behavior during individual quiz completion; (2) Discussion of quiz content to find answers; (3) Dominance, or reluctance of partner during quiz completion; (4) Use of English during quiz completion; (5) Student enjoyment of the activity; and (6) Time to complete the individual/pair quizzes. A summary of my observations in the experimental group classrooms, by focus area, is presented below.

- **Behavior during individual quiz completion.** Analysis of observations for this focus area revealed two predominantly favorable behaviors:

- Students began marking the answers on their quiz sheets immediately
- No one was talking or looking around the room during quiz completion

In three of the nine classes I observed occurrences of behavior that was not conducive to the prompt completion of the assigned task:

- Students hesitated to mark their answers during the initial reading of the questions
- Students were looking around the room at their classmates during the reading of the questions

- **Discussion of quiz content to find answers.** Analysis of observations in this area revealed favorable student behavior. Three examples are presented below.

- Students are calling out answer choices to team mates
- Students are using their native language to confirm the meaning of words
- Student rubs his hand on the table to demonstrate the meaning of “friction”

- **Dominance or reluctance of partner during quiz completion.** Analysis of observations regarding this focus area did not reveal any noticeable themes. Only two teams displayed this behavior:
 - One student in a triad was repeatedly over-ruled when making a suggestion
 - One triad was extremely reluctant to decide on quiz answers
- **Use of English during quiz completion.** Analysis of my observations revealed favorable student behavior. Examples of this behavior are presented below.
 - Students were calling out the question numbers in Arabic and team mates responded with their answer choice in English
 - Teams with the same native language were discussing quiz content in English
- **Student enjoyment of the activity.** Observation analysis of this focus area revealed positive student behavior. The examples below represent this behavior.
 - Several teams shouted “yes” when they got the correct answers
 - There was laughter during team discussions
 - Students were making bets about team and individual quiz scores
- **Time to complete the individual/pair quizzes.** Analysis of observations revealed timely completion of the individual and team activities during the assigned lesson period, as illustrated below:
 - Every class had at least one student who completed his quiz within 10 minutes
 - All students completed the pair/team quizzes before the end of the lesson period

In the control group classrooms, my observation protocol included eight different focus areas: (1) Student-teacher interactions; (2) Level of instructor feedback provided during

classroom activities; (3) Amount of collaboration during book exercises; (4) Student enjoyment of the activities; (5) Student use of English; (6) Student engagement; (7) Time spent reviewing homework; and (7) Time spent on collaborative activities. A summary of my observations in the control group classrooms, by focus area, is presented next.

- **Student-teacher interaction.** Observation analysis revealed favorable classroom behavior. The following examples represent this behavior:
 - The instructor was addressing and referring to the students by rank and name
 - The instructor initiated small talk about casual matters at the beginning of the lesson period
 - Students readily participated in all instructor directed class activities
 - The instructor reminded students to talk to each other during an activity
 - The instructor clarified a grammar point using an example of the students' first language

- **Level of instructor feedback provided during classroom activities.** The analysis of my observations revealed mostly favorable occurrences of feedback in the classrooms. Examples of these occurrences are presented below:
 - Use of SMART board to show answers to book exercises in all classes
 - Asking content questions about passages students read in the book
 - The instructor gave students time to correct themselves before helping
 - Ensuring that students write out the entire sentence in book exercises
 - The instructor reiterated the rationale behind correct and incorrect answers

My observations also included occurrences of no feedback in two of the control group classrooms. Examples of these occurrences are:

- Pronunciation errors during reading activities were not corrected
- Grammar mistakes in practice sentences remained unresolved
- **Amount of collaboration during book exercises.** Observation analysis revealed that collaboration during book exercises was prevalent. The following examples represent this behavior:
 - Before calling on students to come up to the board to write the answers, the instructor asked them to pair up to work through the activity together
 - Students were instructed to work in pairs to come up with sentences in passive voice
 - Students completed exercise individually and then briefly checked answers with a partner

My observations in this focus area also included occurrences where no collaboration took place during the completion of book exercises. An example of this is presented below:

- Students completed the activities individually and the instructor called on each one to answer a question
- **Student enjoyment of the activities.** Analysis of my observations in this area revealed largely favorable student behavior in most of the classrooms. Examples are presented below:
 - Students were smiling and joking while completing answers on the board
 - Students readily volunteered to participate in a demonstration activity
 - Students were encouraging each other (“We work as a team.”)

Observation analysis in this focus area also revealed some less favorable student behaviors in two of the classrooms. The following examples represent this behavior.

- Students were doodling in their notebooks while the instructor went over examples
- Students were checking messages on their phones during class
- **Student use of English.** Analysis of my observation revealed excellent use of English throughout. Examples of this are presented below.
 - Students were asking questions in English
 - Students were talking to each other in English
 - Students gave alternative explanations of meanings of words
- **Student engagement.** My observation analysis revealed mostly high levels of student engagement in the control group classrooms. The following examples represent this behavior:
 - Students volunteered responses to teacher questions
 - Students were discussing exercise questions
 - Students asked for additional vocabulary words related to the lesson

Analysis of my observations also revealed some less favorable student behavior in this area in two classes. Examples of this behavior are presented below.

- Students not paying attention; blank stares during book exercises
- While students were discussing an activity on the board, others were carrying on personal conversations

- **Time spent reviewing homework.** Analysis of my observations revealed largely less favorable occurrences. Examples of these occurrences are presented below:
 - Answers were pulled up on the SMART board only briefly for students to check
 - Comparing answers with classmates for just a few minutes
 - No actual review of assigned homework in three of the classes

CHAPTER 5

DISCUSSION

The main purpose of this study was to examine if a collaborative assessment preparation strategy used in an intensive adult English language program at the Defense Language Institute English Language Center (DLI) had an effect on learner achievement, confidence and satisfaction with this learning experience. A key component of this assessment preparation strategy was the immediate feedback learners received on the accuracy of responses to practice quiz questions. I also examined if language anxiety and the participants' English Comprehension Level (ECL) exam scores were related to confidence, satisfaction and achievement in this context.

This quasi-experimental study included 76 student participants enrolled in one of 16 General English classes at the Defense Language Institute English Language Center (DLI) at Lackland Air Force Base in San Antonio, Texas. A secondary data source included 16 English language instructors who taught the classes assigned to either the treatment or control condition. In-class data collection took place over the period of one week and included survey instruments, practice quizzes, Immediate Feedback Assessment Technique (IF AT) answer sheets, standardized book quizzes, instructor interviews, as well as classroom observations. Neither students nor instructors had prior experience with the IF AT answer sheets.

Below I discuss my findings as they relate to each research question. Then I address the limitations of my study, followed by some implications for practitioners in the ESL classroom. The chapter closes with suggestions for future research.

Research Question 1: What is the effect of Collaborative Assessment Preparation on learner confidence, satisfaction and achievement, as compared to the traditional strategy used in an intensive adult ESL classroom at DLI?

Results of this study did not show a significant difference in student perceptions and achievement between the collaborative practice quiz and traditional instructional strategies. The main reason for this may have been that learners completed the treatment only two times during the week. There may not have been enough time for the strategy to have an effect on student achievement, since language learning usually is a very time-consuming effort. Furthermore, the environment in the experimental and control group classrooms was very similar. Instructors in most of the control group classrooms I visited made collaborative activities part of their daily lesson plans, and the student-teacher interactions were very casual and friendly. Discussing answers with classmates, an activity highlighted by experimental group students as very beneficial, was also a strategy employed in the control group, so this element of the strategy was a reality in nearly all General English classrooms. Other similarities included a friendly, non-threatening learning environment, feedback given on student responses, active participation in class activities, and student-student encouragement.

My presence in the classroom may have been a contributing factor in the nature of my observations, as well. Knowing that I was there to observe their interactions may have prompted students in both conditions to alter their behavior. Even instructor behavior may have been slightly different during the time I was in the classroom, changing the overall classroom dynamics. For example, students as well as instructors in both groups may have felt compelled to participate more or interact more with one another.

Research Question 2: How does language anxiety relate to learner confidence, satisfaction and achievement in this setting?

Findings revealed that foreign language anxiety had a significant negative relationship with confidence and satisfaction in this setting. This result was expected since previous research suggests that less anxious students have more positive attitudes than anxious students in collaborative, foreign language classrooms (Dörnyei, 1994). The moderately strong negative correlation between anxiety and confidence in the current study ($r = -.41$) may have been due to the similarity of items on the FLCAS and the IMMS. Sparks and Ganschow (1991) and MacIntyre (1995) pointed out that the FLCAS is not limited to linguistic variables; it includes a many anxiety-inducing situations that students were asked to rate. My own assessment of the FLCAS suggests at least 11 items are related to confidence, one of the subscales on the IMMS. As such, the FLCAS may have captured many of the same sentiments related to confidence that are measured by the IMMS.

While language anxiety was significantly related to affective outcome measures, it was not related to achievement in this study. This result is not consistent with previous research findings that generally point to a moderate negative relationship between language anxiety and achievement (Bernaus & Gardner, 2008; Horwitz, 2001; MacIntyre, 1995). However, anxiety has been examined from many different angles. For example, existing research clearly distinguishes between language and test anxiety (Sarason, 1980; Horwitz et al., 1986). Even though participants in the current study reported a moderate level of language anxiety, this type of anxiety, as measured by the FLCAS, may not have played a role in student performance.

About two-thirds of the statements in the language anxiety survey specifically addressed speaking situations in the language classroom, and how students felt about them. However, the book quizzes I used in this study did not include a speaking component. Furthermore, researchers have found that overseas experience, and exposure to the target language outside of class lowers language anxiety levels (Matsuda & Goble, 2004). For most DLI students, living in the U.S. is new experience, and students have ample opportunities to use English when they are out and about in the local community. This many have contributed to the non-significant finding regarding the relationship between language anxiety and achievement. Students had repeatedly commented that it was the general proficiency test (ECL) that everyone was afraid of, and not the book quizzes they take every week. This leads me to believe that a more suitable anxiety measure may have been a test anxiety scale, like the one developed by Sarason (1980), to examine the relationship between anxiety and achievement.

Research Question 3: How do participant scores on the English Comprehension Level exam relate to learner confidence, satisfaction and achievement in this setting?

Results of the current study indicated that entry English proficiency had a moderately strong relationship with achievement. This relationship seems plausible since greater language proficiency should lead to better test performance (Mahon, 2006). The ECL is comprised of general language topics with various levels of difficulty. The American Language Course (ALC) textbooks that are used in General English are sequenced by topics and increase in difficulty. When students arrive at DLI, they are placed in classes based on their entry ECL scores. The lowest book I used in my study was book 20, a high intermediate level, so participants already had a demonstrated fairly high level of language proficiency.

While language proficiency was significantly related to achievement, it did not significantly relate to confidence or satisfaction in this setting. The reason for this weak relationship may be attributed to the nature of the IMMS, which contained very specific statements related to student perceptions about the period of instruction leading up to the book quiz. Furthermore, this survey was administered right after the students had completed the associated in-class activities. However, the ECL contains questions about material the students may not have seen before. Test questions in the ECL test bank can come from any book in the American Language Course series. For example, sometimes only one or two vocabulary words that students covered in class the week before an ECL are actually included in the test.

Research Question 4: What is the relationship between learner confidence and achievement in this setting?

Findings indicated that the relationship between confidence and achievement was moderately strong and statistically significant. The practice quizzes that students in the collaborative condition took were based on the entire book covered during the experiment and as such provided them with real-time information about their grasp of the material on two separate occasions. This self-evaluation is a key component of the language learning environment, improving the learner's familiarity with the task at hand (Dörnyei, 1994), which appeared to play a role in learner confidence. Instructors also commented on students being more confident in their vocabulary knowledge after completing these collaborative activities. Students attributed their content knowledge to the discussions with their partners about the answers, and learning from their mistakes through the immediate feedback they received using the IF AT answer sheets.

Another possible explanation for these findings may be the instructors' positive attitude towards the collaborative strategy implemented in the experimental classrooms. Based on my observations, instructors responded positively during this experiment, which may have had an influence on student perceptions, as well. The role of the teacher in the implementation of learning strategies is critical. It seemed as though the teachers enjoyed a high level of credibility among the students. Students may have trusted their instructors' judgment about the effectiveness of the learning intervention, and may therefore have applied themselves more during the practice quizzes. Then, during collaboration, students may actually have felt a sense of accomplishment when they were able to explain the rationale for their answer choices, or were reassured that their answers were in fact correct.

All participants were very engaged during the completion of the practice quizzes, possibly driven by their own demonstration of how much they already knew (Kohonen & Bedley, 2006). Students received positive reinforcement, which may have led to the perception that they can be successful. By the students' own accounts, collaborating with their partners to get the correct answers, finding out that they had answered correctly, or learning what the correct answer was, were among the most enjoyable aspects of this collaborative strategy.

Limitations of the Study

The ability to generalize these results to other, English as a Second Language (ESL) classrooms may be limited. The student population at DLI is unique in that the classrooms are mostly made up of military members from all branches of Service of over 100 countries around the world. Their reasons for being enrolled in English language classes are more strategic than personal in nature. The students' success in the language classroom contributes to long-term capacity-building of their respective home countries' military. A generalization to other adult

ESL classrooms is therefore not appropriate. However, DLI course materials are used by military Services in many U.S. partner nations, and English instructors at those locations receive specialized training on the use of the American Language Course (ALC) materials. Therefore, generalization to those English language classrooms is possible. However, the student population in U.S. partner nations is much more homogenous, in that service members largely have the same native language in their respective classrooms.

Other limitations included the short in-class data collection period of one week, allowing for only two, one hour-long administrations of the intervention. These one-hour blocks in which participants in the experimental group completed practice quizzes, were the only key difference between the two groups in terms of lesson content and classroom environment. Furthermore, I was only able to include upper-intermediate level General English books, since other books in the ALC series did not have the required combination of matching control group and experimental group classes at the time of my data collection. This also contributed to the number of participants that were available for my study.

Implications for the Classroom

Results of the current study confirmed previous research findings regarding the use of collaborative activities in the foreign language classroom (Matsuda & Goble, 2004). Students were actively engaged during quiz completion, using English to work through the questions, explaining their answers, reinforcing and expanding on their content knowledge. The relationship between learner confidence and achievement was significant when students used the instructional intervention, which highlights the importance of encouraging active student involvement in practice activities. Giving students the opportunity to self-check their knowledge of the material focuses learning (Gibbs & Simpson, 2004). Similarly, the practice quizzes I used

in the current study, along with the IF AT answer sheets that provided immediate feedback to student responses. The importance of timely, relevant feedback in this context cannot be overstated. An assessment grade, without an adequate explanation as to what questions a student missed on the test, does not promote learning. Neither students nor instructors at DLI currently receive feedback about exam performance beyond a percentage score and the number of missed listening and grammar questions. Students need to understand the reason behind their grades, and receive timely suggestions for improvement (Gibbs & Simpson, 2004), which were natural consequences of the strategy. I recommend making practice quizzes with immediate feedback part of the General English curriculum to better inform student learning.

Giving students the opportunity to work through practice quizzes in pairs encouraged them to draw from each other's knowledge of the material. By the students' own accounts, this particular aspect was one of the most enjoyable parts of this intervention. Application leads to a deeper level of learning (Whetten, 2007), and by working in pairs students get additional opportunities to use the target language (Storch, 1999). Vocabulary and grammar concepts are reinforced, and since the activity is presented in quiz form, this gives learners additional opportunities to fine-tune their test taking skills.

Results of the current study also have implications for course instructors at DLI. First, the timing of the completion of the practice quizzes was independent of the course lesson plans. One of the biggest concerns instructors had was that the quizzes took time away from an already restricted course schedule. Since the quiz content covered the entire book, instructors are able to include them in their lesson plans as they see fit. Possibly as homework to be completed in pairs the next morning, taking advantage of the collaborative aspect and feedback benefits in a shorter

period of time. In this way, students who finish their individual quizzes early do not sit idle wasting time while waiting for their classmates.

Suggestions for Future Research

Future research into collaborative assessment preparation in the language classroom should include longer implementation periods to allow for more exposure to the intervention. Research should also be expanded to include all levels of the American Language Course series to better understand the effect of collaborative assessment preparation strategies across the entire spectrum of language proficiency. This study can also serve as a building block to further research on the effective use of collaborative assessment preparation in other locations around the world where DLI materials are used. Future research studies should also examine learner attitudes toward collaborative practice strategies by culture group. The diverse student body at DLI represents a multitude of linguistic and cultural backgrounds, which also include learner preferences for instructional strategies. While there are over 100 countries that send students to DLI for language training, the vast majority come from Arabic speaking countries. Research has shown that adult English language learners from Arab countries favor social and metacognitive learning strategies (Oxford & Burry-Stock, 1995; Ismail & Khatib, 2013), where they can interact with others, and practice the use of new language to maximize learning (Oxford, 1990).

Additionally, sources of student anxiety should be examined further. Student responses to items in the language anxiety survey suggest that students were most concerned about the consequences of failing their language program. Horwitz et al. (1986) stated that test anxiety stems from a fear of failure. Given the high-stakes nature of the English Comprehension Level exam, empirical evidence to that effect will aid practitioners in making better informed decision about assessment preparation for students (Kohonen & Bedley, 2006). The role practice quizzes play in this context should also be more closely examined, using the students' individual and

team scores as predictors for learner achievement. Among the most frequently mentioned benefits of this strategy by the participants was that they were able to learn from their mistakes through the feedback they received on the accuracy of their responses. Examining the use of practice quiz scores in this way will provide further insights into the suitability of such quizzes for performance improvement. Findings of the current study regarding learner perceptions of the learning experience should be expanded to include the IF AT answer sheets to validate the effectiveness of this tool in a language learning context.

APPENDIX A

FOREIGN LANGUAGE CLASSROOM ANXIETY SURVEY

<i>Please put an (x) in the block that applies to you.</i>		<i>Strongly Agree</i>	<i>Agree</i>	<i>Neutral</i>	<i>Disagree</i>	<i>Strongly Disagree</i>
		1	2	3	4	5
1	I never feel quite sure of myself when I'm speaking in my foreign language class.					
2	I don't worry about making mistakes in language class.					
3	I tremble when I know I'm going to be called on in language class.					
4	It frightens me when I don't understand what the teacher is saying in the foreign language.					
5	It wouldn't bother me at all to take more foreign language classes.					
6	During language class I find myself thinking about things that have nothing to do with the course.					
7	I keep thinking that the other students are better at languages than I am.					
8	I am usually at ease during tests in my language classes.					
9	I start to panic when I have to speak without preparation in language classes.					
10	I worry about the consequences of failing my foreign language class.					
11	I don't understand why some people get so upset over foreign language classes.					
12	In language class, I can get so nervous I forget things I know.					
13	It embarrasses me to volunteer answers in my language class.					
14	I would not be nervous speaking the foreign language with native speakers.					
15	I get upset when I don't understand what the teacher is correcting.					
16	Even if I'm well prepared for language class, I feel anxious about it.					
17	I often feel like not going to my language class					
18	I feel confident when I speak in foreign language class.					

		<i>Strongly Agree</i>	<i>Agree</i>	<i>Neutral</i>	<i>Disagree</i>	<i>Strongly Disagree</i>
		1	2	3	4	5
19	I am afraid that my language teacher is ready to correct every mistake I make.					
20	I can feel my heart pounding when I'm going to be called on in language class.					
21	The more I study for a language test the more confused I get.					
22	I don't feel pressure to prepare well for language class.					
23	I always feel that the other students speak the foreign language better than I do.					
24	I feel very self-conscious about speaking the foreign language in front of other students.					
25	Language class moves so quickly I worry about getting left behind.					
26	I feel more tense and nervous in my language class than in my other classes.					
27	I get nervous and confused when I'm speaking in my language class.					
28	When I'm on my way to language class, I feel very sure and relaxed.					
29	I get nervous when I don't understand every word the language teacher says.					
30	I feel overwhelmed by the number of rules you have to learn to speak a foreign language.					
31	I am afraid that the other students will laugh at me when I speak the foreign language.					
32	I would probably feel comfortable around native speakers of the foreign language.					
33	I get nervous when the teacher asks questions which I haven't prepared in advance.					

Horwitz, E. K., Horwitz, M. B., & Cope, J. A. (1986). Foreign language classroom anxiety. *Modern Language Journal*, 70(2), 125-132.
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APPENDIX B

PRACTICE QUIZ FOR BOOK 23

Book 23 – Practice Quiz #1

Name/Code:

Listen to your instructor; then select the best answers for questions 1 - 6.

1.) There's _____ around it.

- a. vapor
- b. a liquid
- c. nitrogen
- d. a fence

2.) With _____.

- a. carbon dioxide
- b. a vacuum
- c. water vapor
- d. a barometer

3.) Yes, you can _____ it.

- a. carry
- b. get
- c. collide
- d. use

4.) Yes, I _____ some.

- a. need
- b. brought
- c. have
- d. bought

5.) They _____.

- a. completed the training
- b. won the battle
- c. were in the wrong level
- d. ran out of ammunition

6.) Yes, I'm _____.

- a. a good marksman
- b. going over it again
- c. quite skilled at it
- d. in the elementary level

Select the best words to complete the sentences.

- 7.) Put your things in that empty _____ in the corner.
- a. space
 - b. press
 - c. volume
 - d. layers
- 8.) My cookie recipe _____ flour, sugar, eggs, and butter.
- a. occupy
 - b. layers
 - c. volume
 - d. consists of

Choose the best answer.

- 9.) The instructor kept the students _____ a long time for their grades.
- a. waiting
 - b. waited
 - c. wait
 - d. to wait
- 10.) My class _____ students from all over the world.
- a. surrounds
 - b. compressed
 - c. is composed of
 - d. converts
- 11.) When water _____ from the seas, clouds are formed.
- a. melts
 - b. occupies
 - c. expands
 - d. evaporates

Match the right two parts to make a sentence.

- 12.) Altitude refers to how
- a. high above sea level something is.
 - b. to change
 - c. is vapor
 - d. is the appearance or shape.

Select the best answer.

- 13.) The doctor needs to _____ your injury.
- a. evaluate
 - b. eliminate
 - c. expand
 - d. elevate

- 14.) The police are _____ with the investigation.
- a. converging
 - b. pressuring
 - c. proceeding
 - d. restricting

Select which word goes with this set of phrases.

- 15.) _____ a bandage; _____ pressure; _____ glue
- a. steady
 - b. apply
 - c. initial
 - d. safety

Match the question with the best answer.

- 16.) What appliance do you use to do the laundry?
- a. As soon as they announce the name of the new supervisor, I will let you know.
 - b. I use the washing machine.
 - c. Just somewhat, because I've been studying a lot.
 - d. Not until July.

Select the best answer.

- 17.) The shoes were _____ the bed.
- a. between
 - b. beneath
 - c. throughout
 - d. thorough
- 18.) California is a _____ state.
- a. western
 - b. westward
 - c. west
 - d. westerner

- 19.) The mail is _____ by truck or by plane.
- a. folded
 - b. transported
 - c. directed

Give the opposite meaning of the word.

- 20.) Beneath
- a. backward
 - b. in one place
 - c. on top of
 - d. primary

Choose the best answer.

- 21.) The troops cannot _____ until the artillery fire has stopped.
- a. depress
 - b. advance
 - c. demonstrate
- 22.) It takes a great deal of _____ to learn a new language.
- a. beautiful
 - b. blunt
 - c. effort
- 23.) Which one of these statements talks about “Infantry”?
- a. This branch is often divided into light and mechanized units.
 - b. This branch is called the *King of Battle*.
 - c. These soldiers operate large guns to provide indirect fire.

Match the phrases to make sentences.

- 24.) He ran every day in
- a. serious injuries.
 - b. the previews of coming attractions.
 - c. to inspect the barracks.
 - d. preparation for the race.
- 25.) Seatbelts prevent
- a. has been prerecorded.
 - b. serious injuries.
 - c. the previews of coming attractions.

APPENDIX C

IMMEDIATE FEEDBACK ASSESSMENT TECHNIQUE (IF AT)

IMMEDIATE FEEDBACK ASSESSMENT TECHNIQUE (IF AT®)
Name _____ Test # _____
Subject _____ Total _____
SCRATCH OFF COVERING TO EXPOSE ANSWER

	A	B	C	D	Score
1.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	_____
2.	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
3.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
4.	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	_____
5.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
6.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	_____
7.	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
8.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	_____

Correct answer the first time!

Second try.

NO points here, but now the students have the correct answer.

APPENDIX D

CONFIDENCE AND SATISFACTION MEASURE

Please put an (x) in the boxes that apply to you.

Not true

Very true

		1	2	3	4	5
1	The organization of the course activities this week gave me confidence that I would learn this material.					
2	The lessons in this book had so much information that it was hard to pick out and remember the important points.					
3	When I first looked at the lessons in this book, I had the impression that they would be easy for me.					
4	The course content this week was more difficult to understand than I wanted it to be.					
5	After working through the introductory activities, I felt confident that I knew what I was supposed to learn from the lessons in this week's book.					
6	The activities in this book were too difficult.					
7	After completing all the in-class activities this week I was confident that I would pass this Book Quiz.					
8	I was not really able to understand a lot of the material in this book.					

Not true

Very true

		1	2	3	4	5
9	I really enjoyed studying the lessons in the book this week.					
10	I enjoyed the in-class activities so much this week that I would like to continue my classes in this manner.					
11	Completing the in-class activities this week gave me a satisfying feeling of accomplishment.					
12	It felt good to successfully work through all the activities this week.					
13	It was a pleasure to work through such well-designed activities.					
14	The feedback I received during and after this week's in-class activities helped me feel rewarded for my effort.					

Open-ended questions for participants in the experimental group:

- 1.) What was the most enjoyable part about working through the quizzes with your partner?
- 2.) What was the least enjoyable part about working through the quizzes with your partner?
- 3.) How did working through the practice quizzes help you prepare for the book quiz?

Keller, J. M., (1987). Instructional Materials Motivation Survey. The Florida State University Used with permission from the author.

APPENDIX E

INTERVIEW QUESTIONS

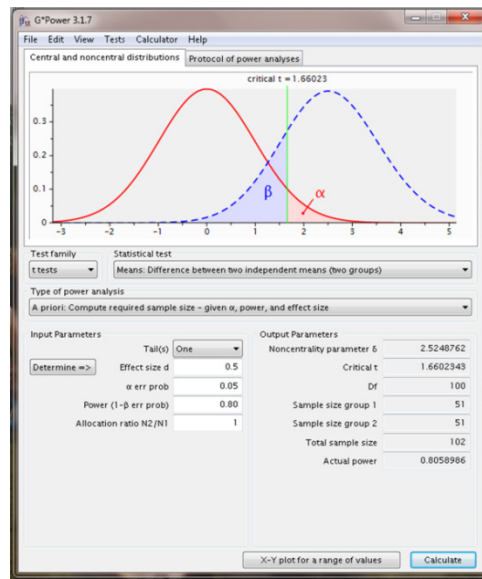
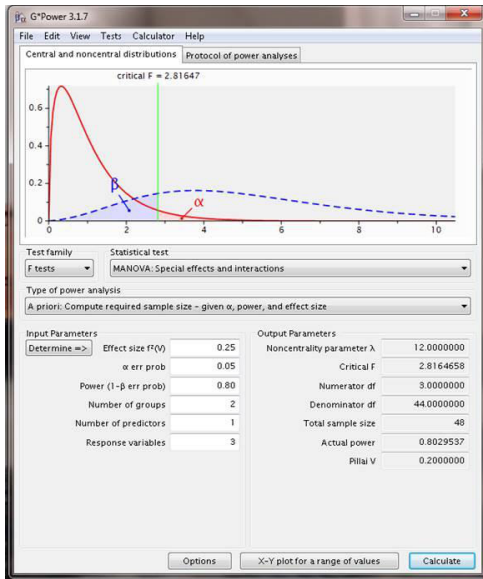
- 1.) How did you perceive the pair/team interaction during the partner activity (practice quizzes)?
- 2.) What were some of the desirable or undesirable features of this collaborative assessment preparation with immediate feedback in your classroom?
- 3.) What would make you want to continue using this preparation strategy in your classroom?
- 4.) How would you describe your students' level of engagement this week?
- 5.) How could this strategy be modified to better fit the DLI classroom environment?
- 6.) How could it be improved in general?
- 7.) How would you describe your students' reaction to the immediate feedback they received during the partner activity?

APPENDIX F

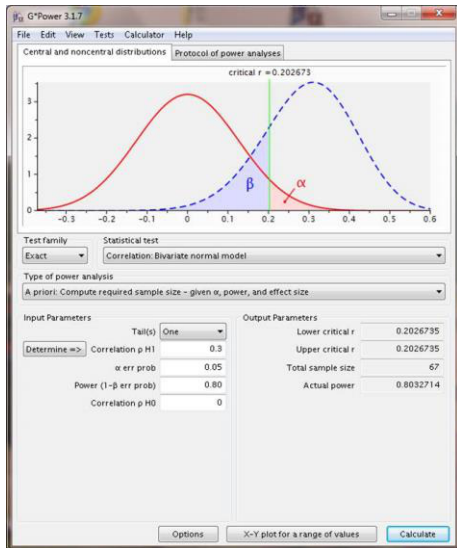
POWER ANALYSIS

MANOVA: Two groups

t-test: Mean difference between two independent means



Correlation exact test



APPENDIX G

CLASSROOM OBSERVATION PROTOCOL

Observation in the Experimental Group Classrooms:

- Behavior during individual quiz completion.
- Are pairs actively discussing quiz content to find answers to the question?
- Does one partner seem to dominate or sit back to let the other complete the quiz?
- Use of English during quiz completion.
- Do students seem to enjoy the activity?
- The time it takes students to complete the individual/pair quizzes.

Observation in the Control Group Classrooms:

- Student-teacher interactions
- Level of instructor feedback provided during classroom activities
- Amount of collaboration during book exercises
- Do students seem to enjoy the activities?
- Student use of English
- Student engagement
- Time spent reviewing homework, going over new vocabulary/grammar
- Time spent on collaborative activities

APPENDIX H

CODING SCHEME

Qualitative Codes	Description	Example Comment
PLDC	Peer teaching/Learning	Students teaching students is a powerful tool
	Discuss/Collaborate	Benefitted from collaborating with a partner
	Active Learning	Very active and constructive
J/E	Justify/Explain	Reasoning about what the correct answer was
L/M	Learn from Mistakes	To know what was error and why
I/F	Immediate Feedback	Liked the immediate feedback on their scores
K/C	Knowledge Confirmation	When we scratch off the correct answer
HBPP	Helpful/Benefit	Helpful for both instructors and students
	Preparation/Practice	Students had an extra step to prepare
CB	Confidence Builder	Students seemed more confident in their vocabulary knowledge
CAV	Class variety	Good balance of individual and pair work
	Activity/Review	Great tool for review
NAA	Nature of the Activity	Presented as part of the curriculum
	Activity/Alternative	Might work best for two week books
L/F	Language Function	Grammar, vocabulary
K/R	Knowledge Retention	It makes me remember the vocabulary and grammar that I learned
<i>Negatives</i>		
I/L	Individual Learner	It is not bad but I study by myself better
DPDA	Disagree with Partner	The disagreement in solving the answer
	Different Answers	When our answers were different from each other
MMBW	Made Mistake	I think when I'm wrong
	Both Wrong	When my answer is wrong and my partner is wrong
KG/I	Knowledge Gap	We had 2 questions; we didn't cover it yet
	Reluctant to Participate/Insecure	At times reluctant to participate when they thought their answers were wrong
U/L1	Use of L1	They reverted to using their native language
M	Messy	Messiness
TATS	Time - Activity	Length of time it took to complete
	Time - Student	Finished at different times
L/I	Lack of interest	Scheduled to go on a tour and couldn't

APPENDIX I

APPROVAL LETTER – DLI



DEFENSE LANGUAGE INSTITUTE ENGLISH LANGUAGE CENTER
JOINT BASE SAN ANTONIO LACKLAND, TX 78238-6259

8 February 2014

Major Sabine Peters

Major Peters,

Your dissertation prospectus "*Exploring the Effectiveness of a Collaborative Assessment Preparation Strategy with Immediate Feedback in an Intensive Adult English as a Second Language Classroom*" is proposed to be conducted at my institution, the Defense English Language Institute English Language Center (DLIELC) using DLIELC students and instructors as human subjects. I have determined the protocol is appropriate in light of the local research context unique to my institution.

Thus, I hereby allow involvement of my institution as proposed in the submitted protocol. This research shall not begin until after all required approvals are in place (e.g., IRB approval and DoD Component Headquarters review, as applicable per 32 CFR 219, DoDI 3216.02 and AFI 40-402). To ensure my continued agreement to support this research, please submit to me for review any significant or substantive changes to this research prior to initiation.

My point of contact on this matter is Margaret Flynn, DLIELC Plans and Programs, who can be reached at (210) 671-3741 or at margaret.flynn@us.af.mil.

 RICHARD D. ANDERSON, Col, USAF
Commandant

APPENDIX J

IRB APPROVAL LETTER - FSU



Office of the Vice President For Research
Human Subjects Committee
P O Box 3062742
Tallahassee, Florida 32306-2742
(850) 644-8673 · FAX (850) 644-4392

APPROVAL MEMORANDUM (for change in research protocol)

Date: 07/18/2014

To: Sabine Peter

Address:

Dept: EDUCATIONAL PSYCHOLOGY AND LEARNING SYSTEMS

From: Thomas L. Jacobson, Chair

Re: Use of Human subjects in Research

Project entitled: EXPLORING THE EFFECTIVENS OF COLLABORATIVE ASSESSMENT PREPARATION
WITH IMMEDIATE FEEDBACK IN AN INTENSIVE ADULT ENGLISH AS A SECOND

The application that you submitted to this office in regard to the requested change/amendment to your research protocol for the above-referenced project has been reviewed and approved.

Please be reminded that if the project has not been completed by 02/18/2015 , you must request renewed approval for continuation of the project.

By copy of this memorandum, the chairman of your department and/or your major professor is reminded that he/she is responsible for being informed concerning research projects involving human subjects in the department, and should review protocols as often as needed to insure that the project is being conducted in compliance with our institution and with DHHS regulations.

This institution has an Assurance on file with the Office for Human Research Protection. The Assurance Number is IRB00000446.

Cc: James Klein <jklein@fsu.edu>, Advisor
HSC NO. 2014.13235

APPENDIX K

IRB APPROVAL – U.S. AIR FORCE



DEPARTMENT OF THE AIR FORCE
HEADQUARTERS UNITED STATES AIR FORCE
WASHINGTON DC

JUL 28 2014

MEMORANDUM FOR FLORIDA STATE UNIVERSITY
ATTN: DR. GARY K. OSTRANDER, VICE PRESIDENT FOR
RESEARCH

FROM: AFMSA/SGE-C
Research Oversight & Compliance Division
7700 Arlington Blvd. Ste. 5151
Falls Church, VA 22042-5151

SUBJECT: Human Research Protection Official (HRPO) Review of **FSG20140004H**

References: (a) 32 CFR 219, Protection of Human Subjects
(b) 10 USC 980, Limitation on Use of Humans as Experimental Subjects
(c) AFI 40-402, Protection of Human Subjects in Research
(d) DoDI 3216.02, Protection of Human Subjects and Adherence to Ethical Standards in DoD-Supported Research

In accordance with HRPO review requirements of Reference (d), the following minimal risk protocol has been approved:

FSG20140004H, "Exploring the Effectiveness of Collaborative Assessment Preparation with Immediate Feedback in an Intensive Adult English as a Second Language Classroom".

Please ensure this research is conducted in compliance with the References, including Reference (c), as it pertains to submission of continuing review reports, proper maintenance of records, and the application of written informed consent to all study participants, as required by the IRB.

JAMES BENJACK, Lt Col, USAF, BSC
Director, Research Oversight & Compliance Division

APPENDIX L

INFORMED CONSENT (STUDENT – EXPERIMENTAL GROUP)

FSU Behavioral Consent Form

“The effectiveness of collaborative assessment practice with immediate feedback in an intensive adult English as a Second Language Classroom.”

You are invited to be in a research study exploring the effectiveness of a collaborative assessment preparation strategy in the General English classroom at the Defense Language Institute (DLI). You were selected as a possible participant because you are a current student in DLI’s General English course. We ask that you read this form and ask any questions you may have before agreeing to be in the study.

This study is being conducted by Major Sabine Peters, Florida State University, in consultation with her major advisor, Dr. James Klein, Professor in the Florida State University Department of Educational Psychology and Learning Systems.

Background Information:

The purpose of this study is to investigate the effect a collaborative assessment preparation strategy has on learner achievement, as measured by the weekly book quizzes in the General English course at the Defense Language Institute. This assessment preparation involves taking two in-class practice quizzes, individually and in collaboration with a partner.

Procedures:

If you agree to be in this study which will take place over the course of two weeks, I ask you to do the following things:

- Complete a foreign language classroom anxiety survey prior to in-class data collection activities
- In two separate class periods during the academic week take two practice quizzes using book content involving individual effort and collaboration with a partner
- Agree to be observed in class during at least one of those practice quizzes, and during at least one regular lecture
- Complete a short opinion survey on the last day of each week during the data collection period

Risks and benefits of being in the Study:

Participation in this study involves minimal risk. You may experience some frustration when working with your partner during in-class activities, and possibly some degree of nervousness while being observed in class. However, your participation may help us identify more effective approaches to exam preparation that you may find useful for your own learning in the future.

FSU Human Subjects Committee approved on 7/18/2014. Void after 2/18/2015.
HSC # 2014.13235

Compensation:

There will not be any compensation for participation in the study.

Confidentiality:

The records of this study will be kept private and confidential to the extent permitted by law. In any sort of report we might publish, we will not include any information that will make it possible to identify an individual subject. Research records will be stored securely and only the researcher, her professor, and a limited number of DoD personnel will have access to the records. This research study has been reviewed by Florida State University and the Department of Defense to ensure the participants' protection, and we will take all possible precautionary measures to protect personal information. All documentation will be erased after one year from the date of the data collection.

Voluntary Nature of the Study:

Participation in this study is voluntary. Your decision whether or not to participate will not affect your current or future relations with the University or the Defense Language Institute. If you decide to participate, you are free to not answer any questions or withdraw at any time without affecting those relationships.

Contacts and Questions:

The researcher conducting this study is Major Sabine Peters, You may ask any question you have now. If you have a question later, you are encouraged to contact her academic advisor, Dr. James Klein, at Florida State University, 850-644-8789, jklein@fsu.edu.

If you have any questions or concerns regarding this study and would like to talk to someone other than the researcher, you are encouraged to contact the FSU IRB at 2010 Levy Street, Research Building B, Suite 276, Tallahassee, FL 32306-2742, or 850-644-7900, or by email at humansubjects@fsu.edu.

You will be given a copy of this information to keep for your records.

Statement of Consent:

I have read the above information. I have asked questions and have received answers. I consent to participate in the study.

Signature

Date

Signature of Investigator

Date

FSU Human Subjects Committee approved on 7/18/2014. Void after 2/18/2015.
HSC # 2014.13235

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BIOGRAPHICAL SKETCH

I am originally from Bad Hersfeld, Germany, but 25 years ago I made the U.S. my home. After graduating from DeVry University in Phoenix, AZ with a Bachelor's degree in Business Operations I joined the U.S. Army and became a Blackhawk helicopter mechanic. After an overseas tour in Korea and an assignment with the 101st Airborne Division (Air Assault) at Fort Campbell, KY, I left the Army and became a financial management officer in the U.S. Air Force. My Air Force assignments to date include budget officer, cost analyst, executive officer, German instructor, English as a Second Language instructor, budget advisor, graduate student and most recently, instructor at the Defense Financial Management & Comptroller School at Maxwell, Air Force Base, Alabama.