

**THE EFFECT OF SELF-ASSESSMENT ON THE SELF-EFFICACY OF
STUDENTS STUDYING SPANISH AS A FOREIGN LANGUAGE**

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iii

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Self-efficacy, the belief that one can complete a specific learning task effectively, is of vital importance for students studying Spanish as a foreign language. In prior research increased self-efficacy has been correlated with enhanced learner motivation, academic performance, and overall achievement. Theoretically, learners' ability to self-assess their own strengths and limitations during the learning process may be linked to overall self-efficacy. However, this association has not been tested empirically. The purpose of this study was to investigate the influence of a continuous self-assessment component on the self-efficacy of undergraduate students studying Spanish as a foreign language. One hundred and four undergraduate students from two different universities participated in this experimental study. 62 participants were in a treatment group, and 42 participants were in the control group. All participants completed the Spanish as a Foreign Language Self-Efficacy Questionnaire (SFL-SEQ) during the second week of the semester (i.e., pretest) and during the final week of the semester (i.e., posttest). Participants in the treatment group also completed weekly Self-Assessment Questionnaires throughout the semester. Results of an Analysis of Covariance, which tested whether inter-group differences in self-efficacy were different between the control and treatments group at posttest after controlling for participants' pretest self-efficacy scores (i.e., the covariate) were not statistically significant ($F [1,86] = 1.77, p = .19$). However, results of a follow-up 2X2 Analysis

of Variance, which tested whether intra-group self-efficacy increased from pretest to posttest, were statistically significant ($F [1,87] = 12.40, p < .01$). Pairwise t-tests for dependent measures showed that self-efficacy scores *did* increase significantly from pretest to posttest for treatment group participants ($t = -7.18 [df = 53], p < .001$), but self-efficacy scores did *not* significantly increase from pretest to posttest for control group participants ($t = -.90 [df = 34], p = .38$). Therefore, Spanish undergraduate students' self-efficacy seemed to be heightened significantly more with continuous self-assessment than without it. In addition, Pearson correlations revealed that participants' Self-Assessment Questionnaire scores were significantly positively correlated with their SFL-SEQ scores. That is, when students rated themselves as learning and knowing more during the course, their self-efficacy scores proportionately increased as well. A detailed interpretation of these results, as well as implications for foreign language education, is provided.

TABLE OF CONTENTS

1.0	INTRODUCTION	1
1.1	SUMMARY OF THE LITERATURE	2
	1.1.1 Self-Efficacy.....	2
	1.1.2 Self-Assessment	6
1.2	DEMOGRAPHIC CHARACTERISTICS—SEX AND ETHNICITY ..	8
1.3	STATEMENT OF THE PROBLEM AND NEED FOR THE STUDY .	9
1.4	PURPOSE OF THE STUDY	10
1.5	RESEARCH QUESTIONS.....	11
1.6	RATIONALE FOR THE APPROACH.....	12
1.7	DEFINITION OF TERMS	13
1.8	OVERVIEW OF THE REMAINDER OF THE STUDY.....	13
2.0	THEORETICAL FRAMEWORK AND THE LITERATURE.....	15
2.1	SELF-EFFICACY IN THE LEARNING ENVIRONMENT.....	16
	2.1.1 Self-Efficacy in Higher Education and Foreign Languages.....	19
	2.1.2 Self-Efficacy and the Learners.....	20
	2.1.3 Self-Efficacy and Self-Assessment	21

2.1.4	Self-Efficacy Beliefs of Learners	22
2.1.5	Self-Efficacy, Foreign Language Learners, and Classrooms	24
2.1.6	The Foreign Language Classroom as a Setting for Self-Efficacy	25
2.2	SELF-EFFICACY, ACHIEVEMENT, AND MOTIVATION	27
2.3	SELF-EFFICACY AND MOTIVATION	28
2.4	SELF-EFFICACY AND SEX.....	30
2.5	SELF-EFFICACY AND ETHNICITY	32
2.6	SELF-ASSESSMENT IN THE FL CLASSROOM.....	35
2.7	SUMMARY OF CHAPTER.....	37
3.0	METHODOLOGY	40
3.1	RESEARCH QUESTIONS.....	40
3.2	NULL AND DIRECTIONAL HYPOTHESES.....	41
3.2.1	Null Hypothesis 1.....	41
3.2.2	Directional Hypothesis 1	41
3.2.3	Null Hypothesis 2.....	41
3.2.4	Directional Hypothesis 2	41
3.2.5	Null Hypothesis 3.....	42
3.2.6	Directional Hypothesis 3	42
3.3	DESCRIPTION OF VARIABLES.....	42
3.4	RESEARCH DESIGN	43
3.5	DELIMITATIONS	46
3.6	PARTICIPANTS AND SETTINGS.....	47

3.7	PROCEDURES.....	48
3.8	INSTRUMENTS	50
3.8.1	Spanish as a Foreign Language Self-Efficacy Questionnaire (SFL-SEQ).....	53
3.8.2	Self-Assessment Questionnaire	55
3.8.3	Demographic Questionnaire (Language Learning Experiences Questionnaire).....	57
3.9	DATA ANALYSIS.....	58
3.10	SUMMARY OF METHODOLOGY.....	60
4.0	RESULTS	61
4.1	SAMPLE DESCRIPTIVE STATISTICS	62
4.2	RESULTS FOR SELF-EFFICACY AND SELF-ASSESSMENT	63
4.2.1	Results for Research Hypothesis Number 1.....	66
4.2.2	Results for Research Hypotheses Number 2 and 3.....	71
4.3	SUMMARY OF RESEARCH FINDINGS	75
5.0	DISCUSSION	81
5.1	SUMMARY OF THE TOPIC AND NEED FOR THE STUDY	81
5.2	IMPLICATIONS FOR THEORY.....	83
5.2.1	Self-Efficacy and the FL Classroom	83
5.2.2	Self-Assessment in the FL Classroom.....	85
5.3	IMPLICATIONS FOR THE FOREIGN LANGUAGE CLASSROOM.....	85
5.4	PEDAGOGICAL IMPLICATIONS FOR SELF-EFFICACY	87

5.5	IMPLICATIONS FOR RESEARCHERS	88
5.6	LIMITATIONS AND IMPLICATIONS FOR FUTURE RESEARCH.....	92
APPENDIX A: SPANISH AS A FOREIGN LANGUAGE SELF-EFFICACY		
	QUESTIONNAIRE.....	96
APPENDIX B: SELF-ASSESSMENT QUESTIONNAIRE.....		
		98
APPENDIX C: THE LANGUAGE LEARNING EXPERIENCE		
	QUESTIONNAIRE.....	100
APPENDIX D: UNIVERSITY OF PITTSBURGH DEPARTMENT OF		
HISPANIC LANGUAGE AND LITERATURES:		
	INTRODUCTORY SCRIPT	101
BIBLIOGRAPHY		
		103

LIST OF TABLES

Table 1. Descriptive statistics for sample population	64
Table 2. Descriptive statistics for the SFL-SEQ.....	66
Table 3. Statistical results of ANCOVA.....	68
Table 4. Statistical results of repeated measures ANOVA	69
Table 5. Results of zero-order correlations between self-efficacy and self-assessment.....	72
Table 6. Summary of results related to statistical hypotheses.....	95

LIST OF FIGURES

Figure 1. Self-Efficacy in the Foreign Language Classroom	18
Figure 2. Self-Efficacy and Self-Assessment	30
Figure 3. Changes in Self-Efficacy Scores.....	70

1.0 INTRODUCTION

Motivation has been shown to be a key factor in terms of second language learning (Clement, Dörnyei, & Noels, 1994; Dörnyei, 2001; Ehrman, 1996; Gardner & McIntyre, 1993 Schmidt, Boraie & Kassabgy 1996). How and why students engage with their learning rather than approaching classroom experiences with disinterest is of particular concern for teachers of subjects typically considered challenging. Another piece of the learning puzzle is how learner belief structures influence the ways in which students approach the learning task. Known as self-efficacy, learner beliefs have the potential to play a key role in the learning process by helping or hindering learner's progress (Bandura, 1984). The beliefs learners hold about their ability to learn can be thought of as self-regulating (i.e., how learners think about their abilities) can regulate the ways in which they approach the learning task as well as how they respond in classroom settings.

Research (Bandura, 1994) has suggested that the source of most human motivation is cognitively constructed, meaning that it generates from sources internal rather than external to the learner. Sources such as self-talk, beliefs about expertise and ability as well as the internalization of praise and critique all affect how a learner approaches new learning tasks. Further research has demonstrated the role that motivation and self-confidence have in the classroom (Clément et al., 1994). In spite of the clear connections between self-efficacy and motivation, very little research has been done on self-efficacy in the foreign language (FL)

classroom. This study explored the literature in self-efficacy and related fields and applied those constructs to the FL classroom environment. It is hoped that by contributing to the understanding of how learners cognitively approach the FL learning environment this study might foster increased clarity for teachers in the field.

1.1 SUMMARY OF THE LITERATURE

A full literature review is supplied in Chapter 2 of this volume. This summary reviews the basic theory and constructs used in the study including self-efficacy, self-assessment, and the relation of self-efficacy to sex and ethnicity, both demographic characteristics found in previous studies.

1.1.1 Self-Efficacy

According to Bandura (1997), self-efficacy is defined as people's beliefs about the capabilities they have to perform at a level that influences their lives. In essence, self-efficacy is the level of confidence a person holds in his or her ability to complete tasks. Positive self-efficacy, such as beliefs in one's capabilities and personal goals, is not only empowering, but it enhances attaining and achieving one's goals (Bandura & Locke, 2003). In an educational context, self-efficacy is the confidence that one has in one's ability to perform tasks that affect one's learning processes.

Self-efficacy beliefs are the product of a complex process of self-persuasion that relies on cognitive processing of diverse sources of efficacy (Bandura, 1997). Bandura asserts that these sources of efficacy can be gained through mastery of experience. In the case of learners, the mastery of experiences is related to the way they interpret the result of their own performance in

the classroom. When the result of a performance is perceived as successful, the learners feel that they can carry out a specific task and feel confident about it and also extend this belief to related tasks in a successful manner. Experiencing something and achieving positive results in this way is considered the most influential source of self-efficacy beliefs (Bandura & Locke, 2003).

In the same way, social persuasion can be a source of efficacy, when learners create and develop self-efficacy beliefs as a result of the social messages they receive from their peers or the teacher. The learner in this case would be aware of feedback for a task well done, that can be repeated or improved, not just meaningless cheerleading from others (Bandura, 1994). Feedback from persons, who are either respected or considered knowledgeable about the task at hand, could potentially enhance one's self-efficacy and cultivate one's competence to a higher degree (Bandura & Schunk, 1981). Social persuasion is related to other people using direct influence to alter someone's behaviors. For example, one person might tell another person that he or she can succeed if he or she performs a task by following a specific set of steps or directions. Yet another source of self-efficacy is vicarious experiences, or actions modeled by others. Bandura (1997) states that seeing people similar to oneself succeed after using personal effort raises the observer's beliefs that they, too, can master comparable activities and achieve success. Pajares and Valiante (1997) believe that this source of information is weaker than that of mastery of experiences, but that if people are uncertain about their own abilities or have limited background experience, they are more apt to use it.

Self-efficacy is also closely related to physiological states. Anxiety, stress, arousal, fatigue and mood states also provide information and may be influenced by our efficacy beliefs in a classroom setting. In the case of the FL classroom, it is even more obvious if we take into account notions such as Krashen's (1988) affective filter theory (the more stressed or anxious the

learner, the less likely he or she is to learn) and motivation (Dörnyei, 2001). In short, people also rely on their somatic and emotional states (e.g., anxiety, stress, fatigue, arousal, and moods) when judging their capabilities (Bandura, 1994). They interpret their stress reactions as signs of being vulnerable to poor performance and in turn, interpret more pleasing reactions as signs of good performance. In turn, such reactions may well influence the emotional state in which they enter the learning situation further hindering or enhancing their potential.

Pajares (1996) references Bandura's (1989) writing concerning how individuals possess a self-system that enables them to exercise measures of control over what they think, feel, and do. According to Bandura's social cognitive theory, self-referent thought or the capacity to reflect on one's actions works as a mediator between knowledge and action. Through self-reflection individuals are able to evaluate their own experiences and thought processes. That is, if they go through a rewarding experience, where their performance was acknowledged as good by others, their self-efficacy beliefs will increase because they are aware of what it is that they did well and why they are being praised or rewarded. Schunk (1990) maintains the view that self-efficacy refers to beliefs individuals have concerning their ability to attain designated levels of performance and how these beliefs are related to goal setting in educational settings.

Pajares and Miller (1997) report that our beliefs of personal efficacy help determine how much effort we will spend in an activity, how long we will persevere when confronting obstacles, and how resilient we will prove in the face of adverse situations. Strong self-efficacy helps create feelings of serenity in approaching difficult tasks and activities. On the other hand, negative self-efficacy leads one to believe that things are tougher than they really are, fostering stress, depression, and a narrow vision of how to solve a problem (Bandura & Locke, 2003). Schunk & Pajares (2002) support the view that processes beneficial for developing self-efficacy

inform students of their capabilities and progress in learning. This information motivates students to continue and to perform well. When students have educational goals that are specific, short-term, and challenging yet attainable, their self-efficacy will be enhanced. If students believe that they can attain those goals, they will also have clear standards against which they can measure their progress. If they perceive that they are progressing, they will be motivated to improve (Schunk, 1991).

The construct of self-efficacy is important in educational settings because, according to Bandura (1994), these settings are ideal to cultivate cognitive self-efficacy. In the classroom setting, at the same time that cognitive skills are mastered, there is development of a growing sense of intellectual efficacy. There are many social factors, apart from formal instruction, that situate learning such as peer modeling, social comparisons, motivational enhancement and teacher's interpretations of successes and failures that affect learners' judgments of their intellectual efficacy. Situated learning, with antecedents in the work of Gibson and Vygotsky, demonstrates that specific activities, contexts, and cultures should be considered during the transmission of knowledge and learning (Lave & Wenger, 1991). Classroom structures affect the development of intellectual self-efficacy mainly because they are usually based on social comparison. Less able students suffer most when the whole group studies the same material and the teacher makes frequent comparative evaluations. In a more personalized classroom structure, individualized instruction tailored to students' knowledge and skills enables all learners to expand their competencies and provides fewer bases for potentially inaccurate and demoralizing social comparisons.

Previously, self-efficacy has been studied in a variety of academic settings (Bandura, Barbaranelly, Caprara, & Pastorelli, 1996; Bong, 1997; Lent, Brown, & Larkin, 1986;

Zimmerman, Bandura, & Martinez-Pons, 1992). Those researching self-efficacy, as related to educational settings, sought to gain understanding about why students select some activities and avoid others. In addition, they attempted to understand why learners succeed in some academic pursuits while failing in others, and why they react with excitement or disinterest at the thought of carrying out a specific task or when they evaluate their confidence in their ability to complete it. Less well documented is how these constructs manifest within the foreign and second language classrooms. Mills (2004) points out that even though there is currently research on self-efficacy in these settings, it is often conceptually or methodologically problematic, as in the case of Cheng (2002) or Mori (2002) and not often conclusive.

1.1.2 Self-Assessment

The literature on self-efficacy links the construct to the closely aligned construct of self-assessment (Wilhite, 1990). Self-assessment can be defined as information about the learners provided by the learner themselves, about their abilities, the progress they think they are making and what they think they can or cannot do yet with what they have learned in a course (Blanche & Merino, 1989). One outcome of accurate self-assessment is that it leads learners to a more comfortable approach to a specific material and more confidence while performing a task related to it. In essence, the greater one's self-assessment ability to perform a task, the more likely it is that the learner will develop a feeling of mastery over the task. This sense of mastery can be termed self-efficacy however it is derived from one's sense of achievement based on self-assessment data.

When defining self-assessment, Harris and McCann (1994) describe the concept as “useful information about students’ expectations and needs, their problems and worries, how

they feel about their own [learning] process, their reactions to the materials and methods being used, what they think about the course in general” (p. 36). Oscarson (1997) explains that the field of self-assessment of language proficiency is concerned with knowing how, under what circumstances and with what effects learners and users of a second language (SL) or a foreign language (FL) judge their own ability in the language. Ability here refers to both achievement and proficiency. Self-assessment, according to Oscarson (1997) comes from the realization that effective learning is best achieved if the student is actively engaged in all phases of the learning process. Self-assessment promotes learning autonomy and it positively affects motivation and outcomes of learning mainly when self-assessment becomes part of day-to-day teaching and when learners who do it for monitoring progress and improvement, not for a grade or placement.

Self-assessment is useful because it has been considered that rather than giving a comprehensive diagnostic test to have a glimpse of possible problem areas for the students, it is much faster to ask students directly what problems they feel they have (Harris & McCann, 1994). At the same time, it has been found that self-assessment provides students with a useful tool to make decisions about particular material that might be useful for them outside the classroom, and also to become more aware of their learning style, as suggested by Brookhart (1997). Moreover, Dodd (1995) suggests that self-assessment is the best way to promote understanding and learning; supporting the belief that students who feel ownership for the class or task and believe they can make a difference, become more engaged in their own learning process further enhancing self-efficacy.

1.2 DEMOGRAPHIC CHARACTERISTICS – SEX AND ETHNICITY

Demographic factors such as sex differences and ethnicity have been researched in relation to self-efficacy in educational settings, both in schools and in higher education (Ancis & Phillips, 1996; Betz & Gwilliam, 2002; Bong, 1999; Hackett, Betz, Casas, & Rocha-Singh, 1992; Letlaka-Rennert, 1997; Lauver & Jones, 1991). Regarding self-efficacy between females and males in different educational settings, studies have produced mixed or often conflicting findings. Some research reports significant differences in self-efficacy according to sex (Hackett & Campbell, 1987; Valiante, 2001) and some research suggests no such relationship (Ancis & Phillips, 1996; Mayall, 2002; Smith, Sinclair, & Chapman 2002; Wiljanen, 1996). Research results on ethnicity and self-efficacy are also inconclusive. Some studies have found that self-efficacy is related to the ethnicity of the students (i.e., Betz, 2004; Hackett, Betz, Casas, & Rocha-Singh, 1992; Karaglani 2003; Meier, McCarthy, & Schmeck, 1984; Middleton & Midgley, 2002). Other studies have found no statistical differences across ethnicities (African American, Latino, European American) (Ancis & Phillips, 1996; Currence, 2004; Betz & Gwilliam, 2002; Bong, 1999; Felton, 1996; Lauver & Jones, 1991). The literature suggests that both of these demographic variables require further study prior to interpreting findings for use in classroom settings. Therefore, while these variables were not a major component of this dissertation study, data was gathered regarding these demographic variables simply for comparison purposes.

In summary, according to Bandura's (1997) social cognitive theory, the most important capability determining future human behavior is self-efficacy. This is the capacity people have to judge their capabilities to organize and execute actions in order to attain a desired level of performance. Self-efficacy is, in turn, an important arbiter of self-reflection. Through self-

reflection, or by reflecting on one's beliefs and motives, people may be able to interpret and self-assess their behavior, thought processes, and also their own motivation. The closely related theory of self-assessment fosters a deeper understanding of the role of self-efficacy as it allows the researcher to better identify those aspects of a learner's internal dialogue related to learning (Brookhart, 1997; Dodd, 1995; Harris & McCann, 1994). Finally, studying self-efficacy as related to the variables of sex and ethnicity offers researchers the potential to further delineate and understand those distinctive features learners' bring to the classroom and how instructors might foster or limit those factors in relation to student learning (Ancis & Phillips, 1996; Betz & Gwilliam, 2002; Bong, 1999; Hackett, Betz, Casas, & Rocha-Singh, 1992; Letlaka-Rennert, 1997; Lauver & Jones, 1999).

1.3 STATEMENT OF THE PROBLEM AND NEED FOR THE STUDY

Understanding the role of self-efficacy and the related theory of self-assessment has the potential to inform classroom teaching including the FL classroom in important ways. A concern for all teachers, motivation is of very practical interest both to second language and foreign language instructors who want to provide learners with instruction that is meaningful and useful. As a psychological construct, self-efficacy is an overall belief of self-competence related to the mastery of a particular task or activity (Bandura, 1994). Increased self-efficacy has been found to positively affect a person's choice of task, the effort one puts into completing a task and one's persistence until mastery of the task. In the past, demographic variables such as ethnicity and sex have been used to predict self-efficacy with conflicting results (Cheng, 2002; Mori, 2002). Only a few of these studies (Mills, 2004; Hunt, 2003) have dealt with self-efficacy and foreign

languages. While it is not surprising that the foreign language classroom has been less well studied than other educational settings such as elementary school reading classrooms, the paucity of research concerning why and how students engage and excel in foreign language learning suggests that further study is needed.

If self-assessment can indeed enhance students' motivation and ultimately their self-efficacy, then teaching self-assessment skills to students may have direct implications for FL classrooms. However, this theoretical pathway has not been explored empirically. Therefore, additional research about the influence of self-assessment exercises on self-efficacy beliefs can enhance theory by creating a new link in the model of self-efficacy development. Research may show that specific classroom exercises can deliberately lead to higher self-efficacy among students. If theory can be expanded in this way, perhaps the creation of self-assessment tools can evolve so that they can focus more on self-efficacy development in the FL classroom.

1.4 PURPOSE OF THE STUDY

The purpose of this study was to investigate the influence of a continuous self-assessment component on the self-efficacy of undergraduate students studying Spanish as a Foreign Language. This study sought to discover if the incorporation of self-assessment exercises in a FL classroom directly helped enhance students' self-efficacy beliefs by testing current theory in the FL classroom setting. Should the complimentary theories of self-efficacy and self-assessment hold in the FL classroom setting the following implications can be expected:

- The more students are able to identify what they perceive to be their strengths and weaknesses in the Foreign Language classroom, the more likely they will be able to

feel confident about their ultimately mastering the tasks that will lead them to perform well in the course.

- The more students think they are learning, the better they think they will perform specific tasks.
- The more confident students are about task, the more likely they will put increased effort and persistence toward achieving their goal.
- The more effort and persistence a student spends with a task, the more likely he/she will be rewarded for their own efforts (e.g., learning the material, receiving a high grade, being commended by others).
- The more a student is rewarded for achieving their goal, the more likely they will be to develop an internal locus of control which will translate into independent thinking and behavior related to the task

1.5 RESEARCH QUESTIONS

Research on self-efficacy and self-assessment suggests positive outcomes for the learner when specific pedagogical activities designed to enhance a learner's sense of success (self-efficacy) (Bandura, 1989; Pajares, 1996) and sense of progress (through self-assessment) (Dodd, 1995; Harris & McCann, 1994). While these claims have not been fully explored in the FL classroom, research (Mills, 2004; Hunt, 2003) suggests that such an exploration has the potential to prove fruitful. Following the line of research established by prior inquiry, this study tested the following research questions:

- Does the introduction of a continuous self-assessment instrument influence students' overall self-efficacy in a Spanish as a Foreign Language classroom?
- Does positive overall self-assessment at the end of a Spanish as a Foreign Language learning experience correlate with self-efficacy?
- Does negative overall self-assessment at the end of a Spanish as a Foreign Language learning experience correlate with self-efficacy?

1.6 RATIONALE FOR THE APPROACH

The primary goal of this study was to determine whether a self-assessment component in the SFL classroom directly influenced students' self-efficacy. Given the desire to assess a cause-effect relationship between the variables in question, an experimental research design was deemed necessary. In this study, which is essentially identifying factors that may influence an outcome or the utility of an intervention, a quasi-experimental pretest-posttest design was used (Creswell, 2003). With this design, in order to have a greater chance of determining whether a causal connection exists between self-assessment and self-efficacy, a control group (i.e., students who do not receive a self-assessment component) was necessary. In summary, the research design for this study was a quasi-experimental, pretest, posttest control group design using participants' self-efficacy pretest scores as covariates.

1.7 DEFINITION OF TERMS

Some descriptive and/or operational definitions of several key terms are included in this section. These terms need to be defined to avoid confusion or misunderstandings and to create a common background for the studies reviewed here. For example:

1. Internal Locus of Control: Locus of control is defined as the measure of perceived relationship between one's actions and the outcomes these actions bring to one's life (Wilhite, 1990). Internal Locus of Control is when an individual holds the perception that consequences and outcomes are determined by oneself and one's personal effort rather than by external influences over which the person has little control.
2. Self-assessment: Self assessment can be defined as information about the learners provided by the learner themselves, about their abilities, the progress they think they are making and what they think they can or cannot do yet with what they have learned in a course (Blanche & Merino, 1989) Self-assessment should also be continuous and not related to the students' grade (Sullivan & Hall, 1997)
3. Self-efficacy: Bandura (1997) defines self-efficacy as one's beliefs in one's aptitudes or abilities to execute the necessary actions required to successfully complete forthcoming tasks or behaviors.

1.8 OVERVIEW OF THE REMAINDER OF THE STUDY

Chapter 2 presents a review of the literature pertinent to self-efficacy, self-assessment, sex and ethnicity in educational settings, both in P-12 schools and in higher education. This review

includes research related to the dependent variable and the methodologies used in educational settings. Also, a rationale for the study is given along with a summary of related literature. Chapter 3 describes the methodology of the study, data collection and the statistical treatment of the data. It includes a description of the dependent and independent variables, the primary Null and Directional hypotheses and the research design. Then, Chapter 4 presents the results of the statistical analyses collected as well as descriptive and inferential statistics. Lastly, Chapter 5 provides a discussion and summary of statistical results and how those results compared to related research and related theory. Implications of results for educators and future research are summarized.

2.0 THEORETICAL FRAMEWORK AND LITERATURE

This chapter addresses the relationship between self-efficacy and self-assessment and the importance of self-efficacy in the classroom. The chapter highlights definitions of self-efficacy and related constructs, such as self-assessment. It also examines self-efficacy in relation to the foreign language classroom, motivation, sex, and ethnicity. The chapter concludes by drawing parallels between the literature on self-efficacy and self-assessment and the usefulness of these ideas for understanding the foreign language classroom.

The field of foreign languages has evolved in a marked way, moving from theories of behaviorism in the early 1950s, to a more cognitive approach in the second half of the twentieth century (Cheng, 2002; Krashen, 1988, 1995, 2000). There has been a rejection of methods in which learners used drills, memory, and manipulation of sentences in favor of focusing instruction on the interplay between cognitions and the learner's environment. The emphasis on this cognitive approach has also been integral to the field of psychology (Bandura, 1997, 1989; Bandura & Schunk, 1981; Pajares, 1996). During what has been called a "cognitive revolution," recent thought has permeated the work in this field, placing the importance of cognitive tasks and information processing strategies in a leading position (Pajares & Shunck, 2002). Part of this new focus is a concern about the learner's self-efficacy and his or her resultant learning.

2.1 SELF-EFFICACY IN THE LEARNING ENVIRONMENT

By the mid-1970s, researchers including Bandura were becoming aware that a key element was missing from the theories about learning prevalent at that time. In 1977, Bandura identified an important contextual finding that was absent from the theory in vogue at that time. Bandura (1977) found that individuals create and develop self-perceptions of their own capabilities – or their ability to assess what they can do and why - which becomes instrumental to the goals they pursue and to the control they are able to exercise over their environments. Bandura termed this important ability self-efficacy. When people have a strong sense of self-efficacy, they approach tasks that are considered difficult as challenges that can be mastered, rather than as threats that should be avoided. They find they are interested and engrossed in the activities they carry out (Bandura, 1989; Bouffard-Bouchard, 1990). Furthermore, they tend to sustain their efforts through failures, attributing those failures to insufficient effort or deficient knowledge or skills they believe can be acquired. Self-efficacy, in other words, allows individuals to approach situations with the assurance that they can exercise control over them, not the other way around (Artistico, Cervone & Pezzutti, 2003; Betz, 2004).

In 1986, Bandura proposed a social cognitive theory stating that the *beliefs* individuals have about their capabilities are critical to improvement and mastery. According to Bandura, how people behave can often be predicted by the beliefs they hold about their own capabilities (more so than by what they are actually capable of accomplishing). That is, individuals' perception about how they themselves will perform at specific tasks and their confidence in their ability to complete them successfully has a large impact on how these individuals actually behave in situations. Since Bandura's seminal work individuals' self-beliefs have been considered critical forces in their academic achievement (Artistico et al., 2003; Bandura, 1996;

Bandura, Capara, Barbaranelli, Gerbino & Pastorelli, 2003; Bandura & Locke, 2003; Ellis, 2004; Pajares, 2002).

Researchers such as Lent, Brown, and Larkin (1986) quickly documented the vital role self-efficacy plays in learning and achieving. Concurring with Pajares and Shunk (2002), Lent et al. (1986) suggest that self-efficacy expectations are strongly related to students' indices of academic performance behavior. In other words, self-efficacy contributes to the prediction of grades and students' persistence. These researchers assert that low self-efficacy may relate to academic problems, such as poor grades and inefficient study habits, but this relationship has not been explored sufficiently.

In the same vein, Zimmerman, Bandura, and Martinez-Pons (1992) studied the role of students' self-efficacy beliefs and academic goals in self-motivated attainment (e.g., deciding what skills and goals one needs to attain success without an outside influence). Zimmerman et al. found that academic attainment was regulated through one's self-motivation. Learners' perceived efficacy to achieve motivated them to perform better academically both directly and indirectly by influencing personal goal setting. Personal goal setting includes the goals learners set for themselves, goals that are influenced by their self-beliefs, and goals their parents set for them. Self-efficacy and goal setting, in combination, promote greater academic attainment (Pajares & Schunk, 2001).

Similar results were found among young learners. Bandura, Barbaranelli, Caprara, and Pastorelli (2001) analyzed the psychological influences through which self-efficacy beliefs affect academic achievement in children. They found that children's self-efficacy beliefs, related to their ability to learn as well as their social skills, contributed to their academic achievement. Social self-efficacy, or one's beliefs in one's ability to perform well in social situations, was also

related to the parents' sense of academic performance of their children and their aspirations for them.

In a high school setting, Bong (1997) concluded that self-efficacy judgments transcend the confines of a single task. The generality of academic self-efficacy depended in part on the perceived similarity that students found in the tasks. That is, students will generalize their sense of achievement in a task when they encounter a similar task in the future. In this case, as students' perceptions of similarity between the instructional challenges increased, so did their academic self-efficacy. For example, students who performed well on simple oral language tasks transferred those feelings of success when approaching subsequent more complex oral language tasks. Therefore, Bong's (1997) research suggests that the perception of one's capability to carry out a task influences the way the task is carried out and the desire to persist in such task.

As Figure 1 below shows, self-efficacy is a process in which students' sense of ability to perform a task influences their success, which in turn contributes to increased effort and persistence.

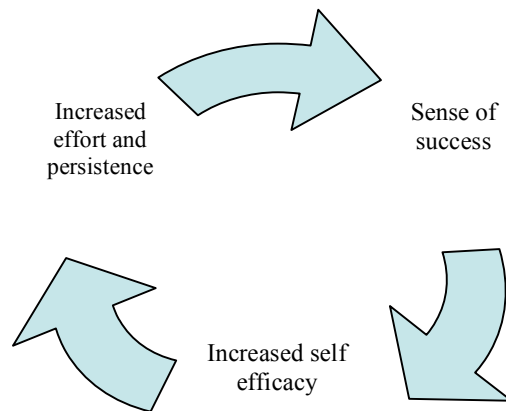


Figure 1: Self-Efficacy in the Foreign Language Classroom

2.1.1 Self-Efficacy in Higher Education and Foreign Languages

In academic settings, it has been shown that self-efficacy beliefs are positively related to academic performance and academic persistence (Multon, Brown, & Lent, 1991). Adapting Schunk's (1991) and Bandura's (1994) definition, self-efficacy in the FL classroom can be seen as a construct including the judgments learners make regarding their own capabilities to organize and execute the tasks required to successfully perform in the language they are learning. Since academic self-efficacy has been shown to correlate with student's motivation and performance, it follows that students' learning environments could be used to enhance self-efficacy (Pajares & Schunk, 2001; Schunk & Pajares, 2002). In this regard, Bandura (1994) asserts that the task of creating learning environments conducive to cognitive development depends on the talents of instructors. In the FL classroom the instructor can help students perform better and persist in studying longer by structuring activities that increase their self-efficacy. For example, level-appropriate tasks related to the topic at hand will provide learners with a sense of control over said topic and will serve as a model for forthcoming assignments (Mills, 2004).

Self-efficacy can be developed related to formative classroom assessments or assignments as well as more summative testing. The situation-and-domain specific nature of self-efficacy can be used to the advantage of learners, given that self-efficacy corresponds with performance criteria in very discrete, specific, and proximal tasks. Pajares (1996) concurs with the assertion that self-efficacy is task-specific, adding that this can be generalized so learners who perform well in a specific task and are confident in their ability to perform said task (be it a listening, speaking, writing, or reading) can generalize this to tasks that they do not feel as confident performing. For example, if students develop strong self-efficacy when learning to

speaking a foreign language in a classroom with an instructor or peer, they will likely feel more confident and motivated when speaking the foreign language outside the classroom.

2.1.2 Self-Efficacy and the Learners

Again, self-efficacy is a psychological construct which is defined as a general, overall belief of self-competence related to the mastery of a particular task or activity (Bandura, 2002; Bandura & Schunk, 1981; Pajares, 1996). Increased self-efficacy has been found to positively affect a person's choice of task, the effort they put into completing a task, and their persistence until mastery of the task (Artistico et al., 2003; Bandura, 1984, 2002; Bandura & Schunk, 1981; Pajares, 1996). A person will likely gravitate toward challenging tasks, put greater effort into achieving goals, and maintain performance for longer periods of time when self-efficacy is greater.

One of the major predictors of increased self-efficacy is having a strong internal locus of control. Self-efficacy is related to an individual holding the perception that consequences and outcomes are determined by oneself and one's personal effort rather than by external influences over which the person has little control. In this regard, locus of control is defined as the measure of perceived relationship between one's actions and the outcomes these actions bring to one's life (Wilhite, 1990). In the FL classroom, this would include beliefs held by the learner such as a sense that it is their effort, work and energy that influences their learning rather than the teacher's "liking them" or some other external force.

2.1.3 Self-Efficacy and Self-Assessment

When self efficacy is considered in the context of the classroom, other factors may influence students' sense of ability to perform. One of these factors is self-assessment. Self-assessment has the potential to play an important role in students' ability to accurately gauge their future academic success. Self-assessment is described as an individual's ability to identify and self-evaluate their own skills in a particular area of expertise (Oscarson, 1997). For example, accurate self-assessment with students of Spanish as a foreign language would be linked to those students identifying their own abilities in Spanish and evaluating their ability to perform specific tasks and their ability to carry them out associated with specific assignments in the FL.

One outcome of accurate self-assessment is that it may lead to a more comfortable approach to specific class-related material and more confidence while performing a learning task (Oscarson, 1997). In essence, the greater one's ability to accurately self-assess their potential for success at a specific task and their level of confidence in their ability to complete it, the more likely it is that one will alter behaviors in order to maximize the chances of mastery over the task. Once again, this sense of perceived self-mastery, as derived from one's self-assessment, contributes to a learner's self-efficacy (Bandura, 1997).

The remainder of this chapter describes self-efficacy and its relationship to learners and academic achievement. Also, an exploration of self-efficacy in foreign languages and its relationship to achievement and motivation is included. Next, a summary of the relationship of self-efficacy to sex and ethnicity is presented in order to present a case for their inclusion or not in this study. Finally, self-assessment in the foreign language classroom and its relationship to self-efficacy is discussed.

2.1.4 Self-Efficacy Beliefs of Learners

Self-efficacy beliefs are the product of a complex process of cognitive self-persuasion that relies on diverse sources of self-efficacy (Artístico et al., 2003; Bandura, 1997). Researchers (Bandura, 1997; Schunk, 1990; Schunk & Pajares, 2002) assert that these sources of self-efficacy can be gained through mastery of experience, or the interpreted result of one's own performance in the classroom. Performing tasks and achieving positive results is considered the most influential source of self-efficacy beliefs. As someone becomes aware of positive results after putting effort into a task (e.g., positive feedback, achieving a goal), his or her self-efficacy increases.

The most effective way of creating a strong sense of self-efficacy is through personal mastery of experiences. Successes heighten one's self-efficacy. A resilient sense of self-efficacy requires experiences in overcoming obstacles through personal effort. Pajares (1997) adds that individuals constantly measure the effects of their actions on their environment, and these interpretations help construct their self-efficacy beliefs. Put simply, outcomes that are interpreted as successful raise self-efficacy; those interpreted as failures lower it. In the foreign language classroom, learners most likely try to measure how they are performing in class, be it while reading, writing, listening, or speaking. If the instructor uses assessment methods that help ensure that learners are able to assess their performance in a given moment or task, it is likely that self-efficacy would increase in the classroom.

Another less potent source of self-efficacy is through vicarious experience (Bandura, 1994; Pajares, 1997), or receiving information about the mastery of tasks by watching the actions of peers in a classroom setting (i.e., when one peer receives praise or is acknowledged after performing an exercise that the person themselves will do or have done before). Bandura (1994) states that seeing people similar to oneself succeed after using effort raises the observer's beliefs

that they too can master comparable activities and achieve success. Pajares (1997) contends that this source of information is weaker than that of mastery of experiences; however, if people are uncertain about their own abilities or have limited background experience, they are more apt to use it. When learners listen to feedback given to peers, they may be able to put themselves in their peers' place and adapt or adopt what their peers have done to receive praise when their turn to perform arrives.

Individuals also develop self-efficacy beliefs through social persuasion when feedback is received from peers or teachers (Bandura 1994). As opposed to vicarious experiences (in which learners watch or view others performing tasks and incorporate feedback indirectly based on other's performances) social persuasion is more direct. The learner is given verbal feedback about his or her performance (Bandura, 1997). Social persuasion is related to other people using direct and usually verbal methods to alter another person's behaviors. For example, one person might tell another person that he or she can succeed if tasks are performed in a certain way. In social persuasion a behavior itself is not modeled for someone else. The behavior or task is verbalized, or described, or summarized. People who are persuaded by others that they have what it takes to succeed are likely to mobilize and sustain greater effort than those who dwell in personal deficiencies when problems arise. Social persuaders provide situations where success is attainable—this should not be mistaken for empty praise (Pajares, 2002). In this case, the implementation of informal instructor as well as peer assessment would again increase the amount of feedback students receive and would provide valuable information about their performance.

Finally, people rely on their somatic and emotional states (e.g., anxiety, stress, fatigue, arousal) when judging their own capabilities (Bandura, 1984). They interpret their stress

reactions as signs of being vulnerable to poor performance. Anxiety, stress, arousal, and fatigue states provide information about efficacy beliefs in a given setting. Positive or relaxing physiological states send messages to oneself that one is “doing all right,” whereas negative physiological states (e.g., anxiety) indicate that something may be wrong regarding the task at hand (i.e., one may not be performing well). However, some research shows that the sheer intensity of emotional or physical reactions may not be most important (Pajares & Johnson, 1996). Rather, it is how those reactions are perceived and interpreted by the individual. Therefore, once again an internal locus of control influences how self-efficacy develops. People with a strong internal locus of control are prone to view their state of affective arousal as an energizing facilitator of performance. Reactions to a task, therefore, provide cues about the anticipated success or failure of an outcome (Pajares, 1997). Someone with a weak internal locus of control may perceive the same psychological state as a sign of incompetence, resulting in fear and confusion. Thus, their self-efficacy would likely be diminished.

2.1.5 Self-Efficacy, Foreign Language Learners, and Classrooms

In sum, these four precursors of self-efficacy (mastery of experiences, vicarious experiences, social persuasion, and somatic and emotional states) form the basis of a learner’s self-efficacy beliefs. In the FL classroom, the benefits of self-efficacy are more obvious if we take into account notions such as affective filters (Krashen, 1995). Krashen suggests that the more stressed or anxious the learner is in the classroom, the less learning and self-motivation occurs. According to Krashen (1995), several 'affective variables' play a facilitative, but non-causal, role in second language acquisition. Learners with high motivation, self-confidence, a good self-image, and a low level of anxiety are better equipped for success in second language acquisition.

Low motivation, low self-esteem, and debilitating anxiety can combine to 'raise' the affective filter and form a 'mental block' that prevents comprehensible input from being used for acquisition. In other words, when the filter is 'up' it impedes language acquisition; self-efficacy could therefore reduce learners' affective filter and promote language acquisition.

2.1.6 The Foreign Language Classroom as a Setting for Self-Efficacy

To reiterate the main points described above, learners' beliefs in their capabilities to master a foreign language (FL) affect their aspirations, their level of interest in the subject, and ultimately their academic accomplishments. Bandura (1994) emphasizes the fact that classroom structure affects the development of self-efficacy because of the level of importance placed on social comparisons versus self-comparisons. For example, learners may find themselves in a situation where they are constantly compared to their peers in term of grades and performance, without specific feedback about specific tasks and how they completed them or chances for self-reflection. This circumstance may lead to a reduced internal locus of control and therefore lower self-efficacy.

According to Bandura's (1997) theory, individuals are viewed as proactive and self-reflective beings, not simply reactive individuals. The creation of discrete, specific tasks that give the opportunity to students to evaluate how confident they are in completing them in the classroom have been shown to promote self-efficacy (Multon et al., 1991) and self-perceived competence (Pajares, 1996) and are highly important in the classroom. It is hypothesized that learners would be more willing to engage in activities that they enjoy and that do not arouse extreme anxiety. Creating tasks that help learners improve their level of proficiency, and that encourage social situations where they interact with and watch effective performances of peers,

could lead them to perform well using situation-and-domain specific competences gained during instruction (Chuang, 2004). Students could gain from different sources of self-efficacy, such as first-hand experience successfully completing tasks at their level of proficiency, learning from their peers performing well at the same level, and receiving acknowledgement for their achievements from the instructor without adding undue anxiety to the experience. In this case, self-efficacy-friendly tasks could provide students with a cognitively rich learning environment that is high in both motivation and real-world tasks that prepare them to perform outside the classroom (Pajares & Graham, 1999).

Even though research is available on self-efficacy in the fields of first language reading and writing, very little research has been carried out in the field of foreign languages (Cheng, 2002). The research that exists shows that students' academic behaviors and performance seem to be directly influenced by their self-perceptions and their beliefs about their academic potential (Pajares & Schunk, 2002). However, even though authors such as Dörnyei (1994) assert that theories of motivation and self-efficacy should be reflected in second language theories, few empirical studies of self-efficacy exist related to foreign language.

Most studies in this area (Clément, Dörnyei, & Noels, 1994; MacIntyre, Clément, Dörnyei, & Noels, 1998) focus more narrowly on self-confidence, a construct somewhat different from self-efficacy. Self-confidence is used to measure more generalized and abstract notions of competence (Dörnyei, 1994). In the case of self-confidence, what has been researched concerned global attitudes about students' capabilities in a broad area. Self-efficacy, however, refers to the students' perceived competence in a specific task and the level of confidence they have in completing them. For example, self-confidence would refer to a "broad feeling" of competence in FL (i.e., "I feel good about reading Spanish") while self-efficacy is the belief that

one is skilled and confident about carrying out a specific task in the FL (i.e., “I can competently read and understand the main ideas in a short letter written about the writer’s recent vacation”).

Mills’ (2004) study revealed that in the few studies focused on self-efficacy and foreign languages, methodological weaknesses have sometimes undermined the findings. The main weakness was the use of ineffective (and often invalid) measures of self-efficacy in the research design. When assessing self-efficacy, the researcher should be aware that self-efficacy is an inferential process in which learners weigh and combine the contributions of personal factors (skill, knowledge, and/or prior success) and persuader credibility (instructor feedback and/or more skilled peer assessment) (Schunk, 1991). The researcher would then be measuring learners’ ability to master a specific task and their level of confidence in carrying them out (Multon et al.; 1991, Pajares, 1996; Schunk, 1991), rather than less specific variables such as a sense of overall confidence in developing language skills.

2.2 SELF-EFFICACY, ACHIEVEMENT AND MOTIVATION

During the last several decades, the basic assumptions of self-efficacy have been widely tested in various disciplines and settings (Pajares, 1999). Self-efficacy beliefs relate to several variables, such as depression (Davis & Yates, 1982), social skills (Moe & Zeiss, 1982), and stress in a variety of contexts (Jerusalem & Mittag, 1995). Self-efficacy beliefs have also been applied to educational research, mainly in studies related to academic motivation and self-regulation (Pintrich & Schunk, 1996). Self-efficacy, when related to educational research, seeks to gain understanding about why students select some activities and avoid others. In addition, it attempts to understand why learners succeed in some academic pursuits while failing in others, and why

they react with excitement or disinterest at the thought of carrying out a specific task and why they do or not feel confident when carrying said task out.

2.3 SELF-EFFICACY AND MOTIVATION

Self-efficacy is related to motivational processes (Bandura 1994), where self-beliefs play a key role in the process of self-regulating motivation. Most human motivation is cognitively generated (Alderman, 1999; Bandura, 1994; Dörnyei, 2001) and people form beliefs about what they can do. At the same time they anticipate likely outcomes of prospective actions. Research has demonstrated the role that motivation and self-confidence have in the classroom (Alderman, 1999). Based on these findings researchers have suggested that teaching practices should reflect the learners' needs (Schmidt, Boraie, & Kassabgy, 1996) and interests, and also reinforce learners' existing motivation. Motivation is also important for learners, who must sometimes struggle to keep their internal motivation high in order to persist in the task of learning difficult materials such as a foreign or second language.

Some writers (Alderman, 1999; Gardner & MacIntyre, 1993) have linked anxiety with poor motivation. Gardner and MacIntyre (1993) assert that language anxiety can be defined as the apprehension experienced when a situation requires the use of a second language with which the individual is not fully proficient. In this case, anxiety is seen as a stable personality trait referring to the propensity for an individual to react in a nervous manner when speaking, listening, reading or writing in the second language. Gardner and MacIntyre (1993) contend that anxious students will have lower levels of verbal production, will be less likely to volunteer answers in class and will be reluctant to express their views in a second language conversation.

According to the authors, it would appear that language anxiety arises from early negative experiences, particularly, when speaking. Also, they report that while language anxiety may be high initially, it would be expected to decline as the student gains proficiency, provided that the student continues to study or use the second language (Schmidt et al. 1996).

Ehrman and Oxford (1995) examined the relationships of individual variables to end-of-training speaking and reading proficiency ratings. The cognitive aptitude that the researchers tested showed a strong correlation with proficiency test results in speaking and reading. Other variables, including self-confidence, also correlated with speaking and reading proficiency. Ehrman (1996) explored motivation and self-efficacy and asserts that self-reported intrinsic motivation correlates with general motivation, self-efficacy, and open-ended learning. With a sense of self-efficacy came a realistic self-appraisal of one's ability to cope with the task at hand. The author also states that anxiety and motivation are not mutually exclusive. A good match between motivation and anxiety promotes efficiency. There may be an oscillation between states of optimism and anxiety when the learner will feel challenged but not too much. When a learner is too anxious, motivation and self-efficacy are reduced and energy that could be used to enhance learning is wasted.

As Figure 2 below shows, self-efficacy is a process in which students' sense of ability to perform a task influences their success, which in turn in contributes to increased effort and persistence. Furthermore, when accurate self assessment is introduced in the classroom context, students' gain increased knowledge about their strengths and weaknesses which in turn may lead to increased confidence and subsequent mastery.

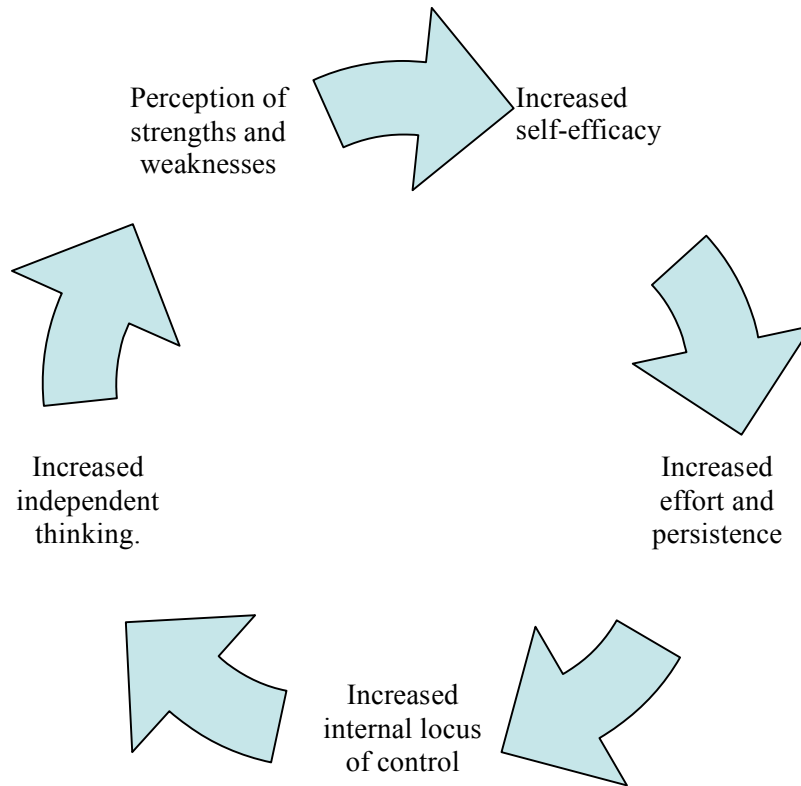


Figure 2: Self-Efficacy and Self-Assessment

2.4 SELF-EFFICACY AND SEX

One demographic variable found by some researchers to correlate with self-efficacy is sex (d'Ailly, 2002; Bong, 1997, 1999; Gonzalez-Hernandez, 1987). However, other researchers who have studied sex and self-efficacy report that the two factors are either unrelated or only moderately associated (Gonzalez-Hernandez, 1987; Hackett, Betz, Casas, & Rocha-Singh, 1992). Fitzpatrick (1999) explored peer assessment and self-efficacy in a counseling practicum. Results indicated that significant differences by sex were evident. Females showed lower self-efficacy in their counseling abilities and skills. These results suggest that women have the

perception that a higher level of competency must be demonstrated to reach a particular level of success. Bong (1999) studied academic self-efficacy in groups of students with different personal characteristics, using a sample drawn from a previous study (Bong, 1997). In this study, the boys demonstrated stronger self-efficacy across academic domains than the girls. Yet, girls more easily distinguished between their verbal and math self-efficacy.

Some research has shown that although sex can affect self-efficacy, the influence of this variable is reduced when gender orientation beliefs are controlled. Pajares and Valiante (2001) studied whether gender differences in the writing motivation and achievement of 497 middle school students are a function of sex-stereotypic beliefs rather than of sex. That is, the perception that some tasks or activities are perceived to be masculine or feminine and, therefore, preferred by men or women. In this study girls reported stronger writing self-efficacy. Gender orientation beliefs were addressed by asking students to report how strongly they identified with characteristics that are stereotypically associated with men or women (i.e., being perceived as masculine or feminine in American society). The process of writing is associated with a feminine orientation because writing is seen by young students as a female domain. So a feminine orientation is often associated with beliefs related to success in writing. All sex differences favoring girls in writing, motivation and achievement were rendered non-significant when feminine orientation beliefs were controlled (Pajares and Valiante, 2001). Relatedly, Valiante (2001) argued that girls typically report greater writing self-efficacy than do boys, but this difference is nullified when sex orientation beliefs are controlled. That is, stereotypic beliefs about gender (boys are better at some endeavors/subjects than girls) were canceled out asking the subjects to identify their perceptions about stereotypical male and female-perceived subjects. Consistent with previous findings, sex differences in writing self-efficacy were rendered non-

significant when sex orientation beliefs were controlled. These results strengthen the contention that sex differences in writing self-efficacy are a function of sex orientation beliefs rather than biological sex.

Pajares (2002) also provides further evidence that differences in self-efficacy are a function of gender orientation beliefs rather than of biological sex. In this study self-efficacy favored girls, but these differences were again rendered non-significant when gender orientation beliefs were controlled. Findings support the contention of some researchers who assert that sex differences in self-efficacy may be a function of the stereotypical beliefs that students hold about sex. In closing, it seems important to discuss Pajares' (2002) contribution within the study of self-efficacy and sex in academic settings. Pajares (2002) asserts that sex differences in student's academic self-efficacy are reported often in the literature of self-efficacy. However, he adds that sex differences may arise as a function of home, cultural, educational and mass media influences.

Based on the literature review summarized above, prior research related to the influence of sex on self-efficacy is inconclusive and somewhat contradictory (d'Ailly, 2002; Bong, 1997, 1999; Gonzalez-Hernandez, 1987; Hackett et al., 1992). The construct itself is also a complicated one in that gender identification may in some instances be a more valid research variable than biological sex. Due to the inconclusiveness of findings in previous research concerning sex, this study did not include this demographic characteristic as an independent variable.

2.5 SELF-EFFICACY AND ETHNICITY

Ethnicity may or may not be related to self-efficacy. Prior research on ethnicity and self-efficacy will be briefly reviewed here (Ancis & Phillips, 1996; Betz & Gwilliam, 2002; Bong, 1999;

Hackett et al., 1992; Letlaka-Rennert, 1997; Lauver & Jones, 1991). Similarly to studies on sex and self-efficacy, research concerning ethnicity also demonstrates inconclusive findings (Ancis & Phillips, 1996; Betz & Gwilliam, 2002; Hackett et al., 1992). Betz and Gwilliam (2002) used three inventories of self-efficacy and related these with career themes in a sample of 399 European American and African American college students. Findings suggest that even though African-American students showed somewhat greater confidence than European-American students in relation to some career dimensions, these differences were not significant.

Similarly, Ancis and Phillips (1996) investigated students' self-efficacy expectations. Results revealed that perceived academic gender bias was significantly predictive of self-efficacy expectations, whereas ethnicity did not predict them. Likewise Karaglani (2003) explored whether ethnicity and other variables influenced students' writing self-efficacy. It was found that writing self-efficacy beliefs were independent from ethnicity and other variables. Interestingly, it was found that Spanish students' writing self-efficacy was more accurate than Caucasian students' writing self-efficacy and that English native speakers were more accurate than bilingual students.

In other studies, though, the connection between ethnicity and self-efficacy is more apparent. Hackett et al. (1992) reported that ethnicity predicted occupational and academic self-efficacy, and Mexican-American students reported lower self-efficacy than Euro-American students. Utilizing a modified form of Betz and Hackett's instrument, Lauver and Jones (1991) compared a measure of ethnicity, socioeconomic status (SES), and other variables. In the results, ethnic differences were noted, particularly regarding self-efficacy estimates, with American-Indian efficacy the lowest for 7 of 18 occupations studied. Similar results were found in a study carried out by Gonzalez-Hernandez (1987) who investigated how self-judged academic effort

among Chicano college students is directly affected by academic self-efficacy. Results showed that there was a direct and significant link between socioeconomic status and academic self-efficacy. Self-efficacy was determined by having students rate how well they were able to study, write reports and perform in other academic tasks. In this case, it was found that higher socioeconomic status predicted higher self-efficacy among Chicanos.

Bong (1999) compared academic self-efficacy judgments of groups of Euro-American, African-American, Hispanic, Asian-American and Native-American students in Los Angeles-based high schools. Hispanic students made more clear distinctions between Spanish self-efficacy and self-efficacy in other verbal subjects than did non-Hispanic students. Students of Hispanic origin seemed to bring in more than school-based experiences when judging their academic efficacy in Spanish. Also, showing a relation between ethnicity and self-efficacy was d'Ailly (2002). The author tested the effect of personal choice on learning with fifth and sixth graders from Canada and Taiwan using a computerized foreign language learning task. Although comparable to their Chinese counterparts in efficacy beliefs, the Canadian children reported that they were more interested, but showed less effort and performed less well on the task. Among the Chinese children, unlike the Canadians, effort was unrelated to efficacy beliefs or interest. When told explicitly there would be no test, Chinese children became more interested in the task, but the Canadians were unaffected. Due to the inconclusiveness of findings in previous research concerning ethnicity and self-efficacy, this study did not include this demographic characteristic as an independent variable.

2.6 SELF-ASSESSMENT IN THE FL CLASSROOM

Self assessment, or specific information about the learners from their own perspective, has to do with learners reflecting about their abilities, the progress they think they are making in a course and what they think they can or cannot do yet with what they have learned up to a certain moment in aforementioned course (Blanche & Merino, 1989) One outcome of accurate self-assessment is that it may lead learners to a more comfortable approach to specific material and more efficacy while performing a task related to it. In essence, the greater one's self-assessment ability to perform a task, the more likely it is that the learner will develop a feeling of mastery over the task.

When defining self-assessment, Harris and McCann (1994) describe the concept as “useful information about students’ expectations and needs, their problems and worries, how they feel about their own [learning] process, their reactions to the materials and methods being used, what they think about the course in general” (p.36). Oscarson (1997) explains that the field of self-assessment of language proficiency is concerned with knowing how, under what circumstances, and with what effects learners and users of a Second Language (SL) or a Foreign Language (FL) judge their own ability in the language. Ability here refers to both achievement and proficiency. Self-assessment, according to Oscarson (1997) comes from the realization that effective learning is best achieved if the student is actively engaged in all phases of the learning process. Self-assessment promotes learning autonomy and it positively affects motivation and outcomes of learning mainly when self-assessment becomes part of day-to-day teaching.

Self-assessment is useful because, rather than giving a comprehensive diagnostic test to obtain a glimpse of possible problem areas for students, it is faster to ask students directly what problems they feel they have (Harris & McCann, 1994). At the same time, it has been found that

self-assessment provides students with a useful tool to make decisions about particular material that might be useful for them outside the classroom, including awareness of their learning style (Brookhart, 1997). Moreover, Dodd (1995) suggests that self-assessment is the best way to promote understanding and learning, supporting the belief that students who feel ownership for the task become more engaged in their own learning process.

Over the past decade self-assessment has been implemented in an increasing number of settings. In many contexts, there has been a shift from teacher-oriented systems of evaluation to a more student-centered approach. The implementation of self-assessment has also been influenced by the need to introduce reflection and reflective practices in a variety of settings, ranging from schools to colleges to the workplace. Oscarson (1978) suggests that teachers in general can profit from authentic language situations when carrying out self-evaluation. Oscarson further reports that adult learners in an ESL setting would try to evaluate their ability in terms of using the language in natural situations, not in terms of test scores. Marineau (1999) found that adult learners could define more clearly what they considered self-assessment to be, ranging from interpreting it as an internal process in which they would evaluate themselves, to seeing themselves as another entity (i.e., looking over their own shoulders at the task at hand).

Brookhart (1997) supports the view that self-assessment provides learners with information about what is important to learn. The author also asserts that self-assessment has been found to help teachers gather information about learners from another perspective, in this case, the learners themselves. Claxton (1995) found that self-assessment is useful in providing learners with discipline to gain a better understanding of the subject matter, and that it is considered an intuitive process, not something that is mandatory or part of a plan of study. Fazey (1993) concluded that it is very important to offer students the opportunity to learn about

personal evaluation if they are going to enter a program at the graduate or undergraduate level. In another study, McMahon (1999) suggests that introducing students to self-assessment would be an efficient way to teach self-judgment and, in due course, encourage critical thinking. Finally, even in their daily lives, learners can benefit from self-assessment. Ellis (1999) suggests that knowing one's strengths and weaknesses can make a difference in the real world. He states that when people carry out self-evaluation they will have a truer sense of what is good or better for them, whether in a work situation or an academic one.

2.7 SUMMARY OF CHAPTER

This chapter has addressed the relationship between self-efficacy and self-assessment, and the importance of self-efficacy in the classroom. Research has showed that positive self-efficacy beliefs are related to academic performance in several subject areas (Artistico, Cervone, & Pezzuti, 2003; Bandura, 1996; Bandura, Capara, Barbaranelli, Gerbino & Pastorelli, 2003; Bandura & Locke, 2003; Ellis, 2004; Pajares, 2002). The judgments learners make about their capabilities to perform in educational settings help them approach a specific task, carry it out to fruition, feel confident about their performance and sustain motivation to persist in the face of failure (Davis & Yates, 1982; Jerusalem & Mittag, 1995; Less, 1983, 1984; Moe & Zeiss, 1982; Pajares, 1997; Pintrich & Schunk, 1996). Given that the strength of learners' self-efficacy has been found to relate to academic outcomes, self-efficacy may help explain complex behaviors in academic settings.

In addition, when one considers that academic attainment is regulated through self-motivation, learners' self-efficacy has the potential to motivate learners to perform better

academically both directly and indirectly by influencing personal goal setting. Self-efficacy and goal setting, consequently, promotes academic attainment. Furthermore, this chapter addressed definitions of self-efficacy and related constructs such as self-assessment. It examined self-efficacy in relation to the foreign language classroom, motivation, sex and ethnicity (d'Ailly, 2002; Ancis & Phillips, 1996; Betz & Gwilliam, 2002; Bong, 1999; Gonzalez-Hernandez, 1987; Hackett, Betz, Casas, & Rocha-Singh, 1992; Letlaka-Rennert, 1997; Lauver & Jones, 1999). It can be hypothesized that in the FL classroom, the enhancement of self-efficacy could bring benefits both to instructors and to learners.

The chapter concluded by drawing parallels between the literature on self-efficacy and self-assessment and the usefulness of these ideas for understanding the foreign language classroom (Blanche & Merino, 1989, Dodd, 1995; Harris & McCann, 1994; Oskarsson, 1997; Marineau, 1999). One outcome of accurate self-assessment would be that it would lead learners to a more comfortable approach to specific material, and a stronger sense of mastery while performing a task. In essence, the greater one's self-assessment ability to perform a task, the more likely it is that learners will develop a feeling of mastery over the task at hand. Although no research to date has tested this hypothesis, learners' ability to incorporate self-assessment activities in the FL classroom may ultimately prove to be a causal link in the promotion of self-efficacy

This study tested these ideas in the foreign language classroom. That is, the more learners are able to identify their strengths and weaknesses during a task (i.e., self-assessment) the more likely they will be able to feel a critical sense of mastery related to that task (i.e., self-efficacy). The more self-efficacy FL students have related to a specific task or their ability to compete it, the more likely they will put increased effort and persistence toward achieving their academic

goals. The more effort and persistence students expend completing a task, the more likely they will be rewarded for their efforts (for example, learning the vocabulary, receiving a high grade on tests, being commended by others). The more students are reinforced while achieving their goals, the more likely they will develop an increased internal locus of control. This may ultimately translate into independent thinking and behavior related to the foreign language they are learning. The culmination of this hypothesized process is that learners' self-efficacy will be enhanced even further, leading to more desire for learning and more engagement in academic experiences.

3.0 METHODOLOGY

The purpose of this study was to find out if the incorporation of self-assessment exercises in a SFL classroom directly helps enhance students' self-efficacy beliefs. In order to accomplish this goal, a quasi-experimental study will be conducted. This chapter provides an overview of the research questions, a description of the variables as well as the research design of the study.

3.1 RESEARCH QUESTIONS

Does the introduction of a continuous self-assessment instrument influence students' overall self-efficacy in a Spanish as a Foreign Language classroom?

Does positive overall self-assessment at the end of a Spanish as a Foreign Language learning experience correlate with self-efficacy?

Does negative overall self-assessment at the end of a Spanish as a Foreign Language learning experience correlate with self-efficacy?

3.2 NULL AND DIRECTIONAL HYPOTHESES

3.2.1 Null Hypothesis 1

There is no statistically significant difference between posttest ratings of self-efficacy among undergraduates studying Spanish as a Foreign Language who receive a weekly classroom self-assessment component for one semester and those who do not, after controlling for the effect of pretest self-efficacy ratings in both groups.

3.2.2 Directional Hypothesis 1

Undergraduates studying Spanish as a Foreign Language who receive a weekly classroom self-assessment component for one semester will report higher posttest ratings of self-efficacy compared to those who do not, after controlling for the effect of pretest self-efficacy ratings in both groups.

3.2.3 Null Hypothesis 2

There is no relationship between overall positive self-assessment at the end of a Spanish as a Foreign Language learning experience and self-efficacy.

3.2.4 Directional Hypothesis 2

Overall positive self-assessment at the end of a Spanish as a Foreign Language learning experience is related to increased self-efficacy.

3.2.5 Null Hypothesis 3

There is no relationship between overall negative self-assessment at the end of a Spanish as a Foreign Language learning experience and self-efficacy.

3.2.6 Directional Hypothesis 3

Overall negative self-assessment at the end of a Spanish as a Foreign Language learning experience is related to decreased self-efficacy.

3.3 DESCRIPTION OF VARIABLES

The dependent variable was ratings of self-efficacy (among undergraduate students studying Spanish as a Foreign Language in a college setting) as measured by a self-efficacy questionnaire adapted from Mills (2004) (See Appendix A). Similarly to personality inventories that measure other psychological constructs, the dependent variable will have interval scores (Borg & Gall, 1989).

The independent variable was a self-assessment component. The independent variable included a self-assessment questionnaire which was incorporated into the treatment group on a weekly basis. The self-assessment questionnaire included questions related to what the students have studied the previous week, how well they think they have performed in those areas, how important those areas were to learning Spanish as a foreign language as well as what they think are their main strong and weak points in the course. This independent variable was a true

dichotomous variable because only two values are present (Borg & Gall, 1989). That is, the participants of this study were divided into those who are in the control group (i.e., not receiving a self-assessment component) or those in the experimental group (i.e., receiving a self-assessment component).

3.4 RESEARCH DESIGN

In this study, data was collected using a measurable instrument (self-efficacy scale), the analysis of data was quantitative in nature, and the research approach was positivistic. According to Creswell (2003), a quantitative approach uses post positivist claims, or not looking only to establish linear cause and effect relationships between variables but to expand the understanding of these relationships. In this case, these claims mean the reduction of specific variables and hypotheses and questions, as well as the use of measurements, provided by the instruments used. The primary independent variable (self-assessment classroom component) was manipulated. Random selection/assignment is not possible when doing an experimental study in a classroom setting. A quasi-experimental, pretest/posttest control group design was used in this study. First, the classrooms asked to participate in the study included all of the second year students registered for Spanish as Foreign Language during the study period at the participating universities. All the students in the participating classrooms were read a script informing them of the study. The researcher randomly selected classrooms to receive a self-assessment component (i.e., the treatment group) and the remaining participating classrooms did not receive the self-assessment component (i.e., the control group). Next, a pretest (self-efficacy measure) was administered to both groups. Then, one group of student received a self-assessment classroom

component and one group did not. Finally, a posttest (self-efficacy measure) was administered to both groups. Except for the introduction of the treatment (i.e., self-assessment component) in one group, participants in both groups were treated as similarly as possible. For example, instructors for both groups used similar course content, teaching approach and classroom requirements. The details of this research design are described in this section, including threats to internal/external validity.

In this study, the researcher tested a theory by attempting to investigate the causal influence of an experimental educational approach. In this kind of design, attitudes are assessed both before and after an experimental treatment (Creswell, 2003). Borg and Gall (1989) assert that this design is one of the most commonly used experimental designs in educational research because when properly carried out, it effectively controls the eight threats to internal validity. These threats, identified by Campbell and Stanley (in Borg & Gall, 1989) are: history, maturation, testing, instrumentation, regression, selection, mortality, and interaction effects. In terms of external validity, this design also proves to be sound. The results of this study could be easily applied to other classrooms, given that the methods of teaching, population, and level of the students can be found in many higher education contexts. In this study, to avoid the threat of an interaction of the experimental treatment and testing, the self-assessment component did not carry a grade, so the students did not take it as part of the ongoing graded evaluation of the course and therefore part of the final grade. Also, the experimental treatment was not affected by the application of a pretest because the self-efficacy scale measured a different construct than self-assessment, the two instruments had different layouts, and each one asked for different information from the learners. The ideal condition for an experimental design includes random assignment which can often be achieved in brief experiments under laboratory conditions.

However, in the case of this study, as it is the case with field experiments carried out in schools, students' homes or elsewhere, it was difficult to establish all necessary conditions for random assignment. In this study some factors may have been present that may have affected the final results. These were addressed in the research design, such as the need to withhold the treatment from the control group, the need to have equivalent treatment and control groups which increases as sample size increases, and the need to have standardized environments/treatments if intact groups (i.e., classrooms) are used experimentally (Borg & Gall, 1989). Self-assessment was assessed by the use of the same instrument in all the experimental classrooms. The language level of the students was expected to be similar, given that they were all students in a second semester Spanish course, and the teaching approach and subject matter was the same in all classrooms.

In order to improve the research design for this study the following steps were taken: first, the treatment was withheld from the control group. In this case, the self-assessment component was administered to willing participants in the treatment group. That is, the self-assessment component was introduced at the beginning of the semester in the experimental group and completion of the self-assessment questionnaire did not impact the students' grades in any way, so the students did not feel compelled to raise or lower their scores to please the instructor or to improve their final grade. Also, the possibility of hindering the external validity of the results was minimized by choosing a large sample size (i.e., 104 participants).

Second, faulty randomization procedures were avoided by choosing an approximately equal number of classes participating in both the treatment and control groups. It was estimated that the groups would self-regulate because there would be an equally likely chance of some students dropping out of the course in the first weeks of the semester, both in the treatment and

control groups. In addition, a power analysis was conducted in order to ensure that an adequate sample size is incorporated into the study design.

Third, each classroom was considered an intact group, given that it was difficult to divide each classroom to randomly assign each student to an experimental or control group. To compensate for the fact that each classroom was an intact group, the number of classrooms was increased from six to seven, thus four classrooms participated as experimental groups and three classrooms participated as control groups.

3.5 DELIMITATIONS

The sample population was delimited to students age 18 or above, from a Spanish second year class, at a Midwestern (University of Akron) or a Northeastern public university (University of Pittsburgh). This allowed for a somehow diverse sample population in terms of age and Ethnicity, a wide level of Spanish proficiency, greater generalizability of results, and additional help from instructors and university personnel (i.e., larger sample size). The Spanish second year level was chosen because this level helps avoid some setbacks that sometimes plague Basic Spanish levels: false beginners, students looking for an easy grade/easy requirement and dropout rate.

In the Spanish second year level, the majority of the students have taken Basic Spanish, thus providing a more homogeneous background for Spanish second year and also increasing the chance of having fewer false beginners. False beginners in Spanish second year are much less usual, given that the structures and vocabulary at this level go beyond nominating and identifying, both characteristics of the basic level and very usual in many high schools where the students usually have their first contact with a foreign language. Second year students are also

less likely to drop out because most universities require two to four semesters of foreign language education.

3.6 PARTICIPANTS AND SETTINGS

The participants were mainly sophomore and junior college students in either a Northeastern or Midwestern university, with an average age range from 21-25 years old. Most of the participants had at least one semester of Spanish instruction and some may have had at least 2 years of high school foreign language instruction. The participants provided information about their sex, age and ethnicity, along with information about number of years studying Spanish (both in high school and college) and current student status at the university where they study (i.e., freshmen, sophomore, etc).

The Northeastern university was located in a metropolitan area. The campus is situated within an urban county of approximately 1,261,000 inhabitants (2003 census data). The university is a public institution with no religious affiliation. The undergraduate student population numbers approximately 17,500 (82% Caucasian, 9% African American, 4% Asian and 1% Hispanic).

The Midwestern university was located in a semi-metropolitan area. The campus is in a semi-urban county of approximately 547,000 inhabitants (2003 census data). The university is a public institution with no religious affiliation. The undergraduate student population numbers approximately 16,887 (78% Caucasian, 15% African American, 2% Asian, and 1% Hispanic).

The students participating in this study belonged to advanced beginner Spanish (i.e., Spanish 2) courses offered at the participant universities. According to the syllabi of the Spanish

courses at both universities, these courses were designed to teach students to understand Spanish in predictable contexts, on familiar topics, as spoken by native speakers; to speak about personal interests and experiences, describe and narrate in the present tense and past, talk about future plans. Also the instruction prepares students to meet everyday social demands and perform basic functions in a Spanish-speaking environment; to write short compositions and informal letters; to develop strategies for reading and understanding authentic texts in Spanish; to develop an awareness of the cultures of Spanish-speaking people which provides the context for a correct understanding of the language. New material was presented and practiced in class through questions and answers and other speaking activities in Spanish. Listening comprehension was practiced using visuals, gestures, and video segments as aids to comprehension. In order to develop understanding of the spoken language, the classes were conducted primarily in Spanish.

A power analysis showed that with an alpha level of .05, a hypothesized medium effect size, and two groups (treatment and control groups), a power of approximately .70 was achieved with 104 total participants (Cohen, 1992). Cohen states that the power of a statistical test is the probability of rejecting the null hypothesis when the null hypothesis is in fact false, thus making a correct decision. Power should be set at a high level, since the researcher is hoping to reject a null hypothesis that is not true and wants at the same time to have a high probability of doing so (Cohen, 1992).

3.7 PROCEDURES

The researcher first gained approval for the research design from the Institutional Review Boards of the participating universities. Once this approval was granted, the Spanish coordinators at

each university was contacted and asked for permission to collect data in the Spanish second year classrooms. Next, individual instructors were contacted to grant permission for the researcher to visit the classrooms and explain the research objectives to the students (and ask for their voluntary participation). Only students who volunteered to take part in the study were given questionnaires to complete during class time. The students were then read a informed consent script describing the purpose and procedures of the research study, the fact that participation was voluntary, and the name and contact information of the researcher. The script also included the benefits the research may bring to the participants, as well as a statement describing how confidentiality of records will be maintained. Appendix A provides a sample of the informed consent script read to participants. Participants from all Spanish courses over the Summer II session at both universities were asked to join the research study.

Three questionnaires were handed out and responded to by the treatment group students (i.e., the self-assessment questionnaire, the self-efficacy questionnaire, and the demographic questionnaire), and two questionnaires were handed out and responded to by control group participants (i.e., the self-efficacy questionnaire and the demographic questionnaire). For both groups the self-efficacy questionnaire and the demographic questionnaire were first completed and handed in during the second week of classes. This was done to avoid including in the study students that may drop out of the course during the first week of class. In only the treatment group, the self-assessment questionnaire was completed and handed in on a weekly basis throughout the semester (i.e., five times since Summer courses occur over a 5-week period). For both groups the self-efficacy questionnaire was then completed and handed in during the final week of classes. The researcher and/or the class instructor was present each time instruments were completed, in case any questions arose.

All questionnaires were completed anonymously and the students did not have their names mentioned at any time during the collection or coding of research data. When survey packets were first distributed (i.e., at pretest), each one included a space on the first page where each participant wrote down the last four digits of his or her social security number. Social security numbers were then re-coded by the researcher to protect the anonymity of participants, thus also facilitating the matching of pretest posttest scores. The same procedure was followed at posttest, guaranteeing that the researcher was able to contact the teacher to which the student is assigned and to provide an additional self-assessment questionnaire if any student did not attend class the day it was administered. Once all posttest questionnaires were collected and coded, the researcher entered the data for all relevant variables in a data analytic program for analysis.

3.8 INSTRUMENTS

In academic settings, researchers suggest that the instruments used to measure self-efficacy should ask the students to rate their confidence in solving specific problems, perform specific reading, writing, speaking or listening tasks, or engage in certain self-regulatory strategies. Also, the task should be something specific that the learners have done before (Mills, 2004). Correspondence between belief and outcome is an important criterion of self-efficacy (Pajares, 1996). Pajares adds that when assessing self-efficacy the wording of the items should be carefully chosen. He also states that it is important to use terms such as “can” (which is a judgment of capability) rather than “will” (which is a statement of intention).

For example, Cheng (2002) studied the relationship between foreign language writing anxiety and foreign language writing self-efficacy. In this study, four language anxiety scales

and a background information questionnaire were used to collect data. The students were asked to rate their English writing ability on a Likert-type scale that went from 1 (not proficient at all) to 5 (very proficient). However, these findings were based on a one-item self-efficacy measure that was broad and generalized. Therefore, the validity of the self-efficacy measure is questionable.

Other researchers studying self-efficacy and foreign languages, have inappropriately mixed self-efficacy with other constructs in the research design (Mori, 2002). As opposed to Cheng (2000), Mori used a 30-item, seven-point Likert-scale questionnaire to measure self-efficacy. However, she did not evaluate specific enough skills and the questionnaire combined other variables such as previous grades in foreign language reading with self-efficacy. That is, some items asked students to report information concerning their previous grades, instead of specifically asking for their self-perception of reading competence. The result is that it was not possible to specifically evaluate students' sense of self-efficacy for foreign language reading, because students' perceptions of prior overall language achievement influenced their questionnaires.

Amstrom's self-efficacy questionnaire (in Mills, 2004) utilized sample questions such as "Circle the number on the line below that shows how sure you are that could read a text in *language* and figure out the main topic or gist." Response choices were on a Likert-style scale ranging from 0 (not sure) to 100 (completely sure) for listening, reading, writing and speaking in the foreign language. The scale was long and the five items in each broad skill area did not seem to focus enough on specific tasks or the students' confidence to complete it to accurately measure self-efficacy. Additionally, the phrasing of the questions makes them broad and sometimes ambiguous.

Bong's (2001) research also contains some flaws, for example students' self-efficacy was rated on a combination of solving problems in English, Spanish, history, algebra, geometry, and chemistry. Therefore, it was not possible to determine students' self-efficacy related to a particular subject, let alone one specific task or the capacity the learners' believe they had to complete it.

Regarding English as a Second Language, studies such as those carried out by Huang and Chang (1996) and Templin, Guile and Okuma (2001) have also included self-efficacy as a variable. In Huang and Chang's (1996), the low number of participants was detrimental to the research, because generalizability was limited. In the Templin et al. (2001) study, the 13 items again tended to be broad and not task-specific enough. Also, reading, writing, speaking and listening were assessed with only one or two items each, not providing enough information about the self-efficacy of the students in each one of the skill areas.

One recent study that has more validly assessed self-efficacy in foreign languages was carried out by Mills (2004). She used a French Proficiency Self-Efficacy Scale comprised of French reading and listening self-efficacy items. The 35 items were scored on an 8-point Likert-type scale that went from 0 (not confident at all) to 7 (completely confident). Using the 35 self-efficacy items, many diverse aspects of human communication were assessed. And the 8-point Likert-scale seemed to be constructed in a psychometrically sound manner, thereby avoiding pitfalls that other researchers encountered in the past. The main drawback in her study was that the listening proficiency measure possessed some psychometric flaws, such as low item reliability and internal consistency. Also, this research was limited to intermediate French students.

The next step in research would therefore be to create a self-efficacy questionnaire similar to the one used by Mills (2004), with task-specific and skill-specific items and with a sample size big enough so the results can be generalized. Also, the self-efficacy of FL students should be measured in other foreign languages widely taught such as Spanish. In this way, results could be applied to a wider population and instruments could be created to accurately assess learner's self-efficacy in FL.

The instruments adopted for this study included: (a) a Spanish as a Foreign Language Self-Efficacy Questionnaire (SFL-SEQ) adapted from Mills (2004) (see Appendix A); (b) a self-assessment questionnaire adapted from Blanche & Merino (1989) (see Appendix B); and (c) a language learning experience questionnaire, adapted from Blanche (1990) (see Appendix C).

3.8.1 Spanish as a Foreign Language Self-Efficacy Questionnaire (SFL-SEQ)

The SFL-SEQ was adapted to fit language curricula covered in the second semester of a Spanish as a Foreign Language classroom. Mills' questionnaire was created for an intermediate French course. The statements in questions dealing with FL understanding (i.e., listening and understanding a TV commercial in French or reading an editorial in a French magazine) were scaled to the level of students in this research project according to Novice-Low ACTFL (2001) proficiency guidelines. The questions were also stated in terms of Spanish acquisition instead of French acquisition (e.g., listening and understanding a TV commercial in *Spanish*). However, the same construct was assessed using the same types of questions as described by Mills. The number of questions was not altered and the constructs assessed were not changed. The only adaptation included slight variations in wording to fit a SFL classroom instead of a French as a second language classroom (as originally worded). Given that the purpose, constructs, quantity,

or types of questions were not altered, it is assumed that the validity of the tests used was not diminished.

The SFL-SEQ focuses on listening and reading tasks. According to Mills (2004), interpretive skills on this questionnaire are part of the Communication goal of the National Standards for Foreign Language Learning (1999). These standards suggest that to communicate effectively, students must attain a certain proficiency level in these skills. These skills refer to Krashen's (1988) theory which suggests that in order for language acquisition to take place, there needs to be learner comprehension of language input with an emphasis on meaning over form. Comprehensible input then plays a large role in language acquisition and therefore the skills of listening and reading were chosen to be the skills in which students' beliefs of self-efficacy will be measured.

The SFL-SEQ has 40 items and is scored according to an 8-point Likert-type scale. Regarding the first 35 questions, students are asked how sure they are they can perform a specific Spanish-related task. These items are scored from 0 (no chance) to 7 (completely certain). The last five questions focus on students' self-efficacy about their overall performance in a Spanish classroom, thus providing insight into the students' confidence in achieving certain grades at the end of the semester in the Spanish class, in other words, their confidence in attaining a certain goal by mastering the tasks involved in performing certain language functions. These five questions ask how confident students are in their ability to attain a grade of A, B, C, D or F in their current class, or their capability to complete and concentrate on the SFL course, in other words, their self-efficacy towards the SFL course as a whole. The items are scored using a Likert-type scale ranging from 0 (not confident) to 7 (completely confident). One overall SFL-SEQ score is obtained, and total scores range from 0 to 280. Higher scores equate to higher self-

efficacy related to Spanish as a Foreign Language. The original instrument's face validity was established by a review of the questionnaire by two French coordinators, two trained ACTFL oral proficiency raters, an ACTFL proficiency guideline authority and an expert in academic self-efficacy research (Mills, 2004). The psychometric properties of the scale were also evaluated by the developers for internal consistency, with a Cronbach's alpha coefficient ranging from .97 to .95 (Mills, 2004). The Cronbach's alpha coefficient for the self-efficacy scale was reported to be .88 (Mills, 2004). The Cronbach's alpha was obtained separately by the researcher for this sample in order to test the adapted instruments' internal consistency reliability. Cronbach's alpha for the SFL-SEQ was .98, indicating a very high level of internal consistency for this instrument.

3.8.2 Self-Assessment Questionnaire

The self-assessment questionnaire was adapted from Blanche and Merino (1989) This instrument was chosen because it takes into account the fact that formal grammar instruction does not have a central place in the curriculum (but it does not deny that it has an important role to play). In this questionnaire students are asked to identify classroom topics (whether grammatical, functional or vocabulary-related) they consider important, the main difficulties they had while learning the topics, as well as strategies they believe may overcome these difficulties. This kind of self-appraisal is particularly good in the case of students who are beyond the Beginner level. Intermediate and advanced students of a foreign language might also profit by concentrating on learning aspects of morphology and syntax that are normally acquired in later levels. This instrument allows students to focus on their assets as well as their shortcomings and hopefully makes students reflect upon all the various aspects of the course (Blanche & Merino, 1989). The result may be an increase in students' internal locus of control, motivation, and ultimately a

stronger sense of self-efficacy. This result may prove significant for students in terms of classroom learning and for instructors in terms of course methodology.

The self-assessment questionnaire provides ten questions that students should answer, covering several different aspects of the course (see Appendix C). The first question asks for details about the topics the student finds important in the past lessons (in this case, the last 2 weeks). Questions 2 and 3 ask students to rate how important they believe each topic is, and how well they believe they can learn the topic. A 4-item scale ranging from “not at all” to “thoroughly/extremely” is used for ratings. In question 4, students are asked to write down vocabulary words they have learned since the last self-assessment. In questions 5 and 6 they are asked to rate how important they believe each word is, and how well they believe they can learn the word. A similar 4-item scale is used for these ratings. In question 7, students are asked to rate their feelings about their learning using a five-descriptor scale ranging from learning “nothing at all” through “a lot” in the last several weeks. In questions 8 and 9, students are asked to describe their weaknesses and the changes they would make to their study habits. In question 10, they are asked for suggestions about what they prefer the instruction to focus on during the following self-assessment period. Similarly to the SFL-SEQ described above, the self-assessment questionnaire Blanche and Merino created was therefore slightly adapted in order to fit the purposes of this study. In order to test the internal consistency reliability of this adapted questionnaire, Cronbach’s alpha was obtained for the self-assessment questionnaire used in this study. Results show an alpha coefficient of .91, indicating a very high degree of internal consistency for the instrument.

3.8.3 Demographic Questionnaire (Language Learning Experience Questionnaire)

The language learning experience questionnaire was adapted from Blanche (1990). Even though it was used to collect data in a French immersion program for the armed sources and this study focuses on Spanish as a foreign language programs for higher education students, it provides information about highest level of education completed and number of previous years of instruction. This data would help to better understand the demographic characteristics of the sample population and see if the results of the study can be applicable to a larger population. The questionnaire was modified to provide additional information on sex and ethnicity in order to better describe the population involved in the study.

The original questionnaire included eight questions, only five of which were included in this study. In question 1, students were asked to state the highest level of completed, formal education they have attained (freshman, sophomore, junior or senior year, completed MA or MS, or completed BA or BS program). Question 2, assessed whether or not students have been exposed to any foreign language for a significant period of time before coming to the university. In question 3, students responded “yes” or “no” to a question about whether or not they had studied Spanish before enrolling in the university. In questions 4 and 5 they were asked to state the number of years they had studied Spanish before coming to the university, and the dates during which these experiences took place. Questions 6 (name of Spanish instructor), 7 (last digits of social security number) and 8 (age) were added to the original version of the questionnaire to facilitate contacting participants in case they fail to complete all questionnaires, to provide anonymity (no names are used), and to provide needed demographic information. Questions 9 (Sex: Male/Female) and 10 (Ethnicity: African American/European-American/ Native American/Asian-American/Hispanic-American/Other) were included specifically to

collect further information needed for this study. Questions about years of previous foreign language study were eliminated because these questions seemed redundant and did not provide new information about the sample.

3.9 DATA ANALYSES

First, descriptive statistics were obtained for all demographic variables on the questionnaires. Descriptive statistics included the means, standard deviations, and ranges of the dependent and independent variables and sample characteristics. All data were quantifiable because they were coded using numerical values. Frequency distributions were also provided.

Then, in order to answer research hypothesis number 1, an analysis of covariance (ANCOVA) was used. This statistical test determined if the posttest self-efficacy scores differed between the treatment and control groups after controlling for pretest self-efficacy scores. This analysis served as the main statistical test for this study. A one-way ANCOVA was used in order to help standardize the pretest self-efficacy scores of both groups (i.e., pretest self-efficacy scores served as the covariate). The use of ANCOVA provides researchers with a technique that allows one to more appropriately analyze data collected in social science settings (Mertler & Vannatta, 2002).

Oftentimes, when dealing with human beings, there are extraneous variables that may influence the dependent measures. The ANCOVA is then an extension of the ANOVA where the main effects and interactions are considered after the effects of some other associated variable has been removed. The effects of the covariate (in this study the pretest self-efficacy scores) are removed by adjusting the scores on the dependent variable in order to reflect initial differences

on the covariate (Mertler & Vannatta, 2002). The analysis of covariance parallels the analysis of the ANOVA with one additional component: the adjustment of the dependent variable scores. As stated above, the ANCOVA has several purposes, the main one of which is to help equalize the covariate (i.e. pretest self-efficacy scores) for both groups so that the main effects and interactions on the dependent variable (i.e. posttest self-efficacy scores) could be measured most accurately. SPSS was used as the statistical program to analyze these data.

In order to answer research hypotheses number 2 and 3, (bivariate) Pearson correlations were used. This statistical test attempted to determine whether a relationship existed between a quantitative independent variable (i.e., self-assessment posttest scores) and a quantitative dependent variable (i.e., self-efficacy posttest scores). In this statistical analysis the independent variable was participants' scores on number 2, number 7, number 11 of the self-assessment questionnaire adapted from Blanche & Merino (1989). The total (sum of questions 2, 7, and 11) was used as a fourth independent variable in these analyses. Question 2 stated: "In your estimation, how well can you deal with the topics you listed in section one (i.e., topics learned that week)." Participants scored this question according to a 4-point Likert-type scale (1 = Not at all, 2 = To some extent, 3 = Very well, 4 = Thoroughly). Question 7 stated: "Thinking about the past week in Spanish class, I feel that I have learned (numerical value on the past weeks' learning)." Participants scored this question according to a 4-point Likert-type scale (1 = Nothing at all, 2 = Very little, 3 = Enough, 4 = A lot). Question 11 stated: "Thinking about this Spanish class as a whole, I feel that I have learned (numerical value on class learning as a whole)." Participants scored this question according to a 4-point Likert-type scale (1 = Nothing at all, 2 = Very little, 3 = Enough, 4 = A lot). Therefore, the higher a participant rated themselves on any of

the three questions described above, the better they believe they performed on Spanish tasks they identified as important to their learning.

3.10 SUMMARY OF METHODOLOGY

This chapter described how participants in the control and experimental (i.e., self-assessment) classrooms completed self-efficacy and demographic questionnaires during a 1-semester Summer (i.e., 5-week) time period. Students in the experimental group were also introduced to self-assessment instructional exercises, and completed a self-assessment questionnaire after each week of class. Participants were delimited to beginning SFL students, and the data collection sites were outlined. The specific instruments were described, including how the original authors' questionnaires were adapted to meet the needs of this research design. The null hypotheses stated that there is no statistically significant difference between pretest and posttest ratings of self-efficacy among undergraduates studying SFL due to self-assessment exercises. The data analyses were then summarized, in particular the primary ANCOVA used to draw conclusions about whether or not posttest self-efficacy scores differ across groups after controlling for the effects of pretest self-efficacy scores. Finally, the use of Pearson correlations was described as a means to test research hypotheses 2 and 3 (i.e., that self-assessment scores are associated with self-efficacy scores among treatment group participants).

4.0 RESULTS

By understanding the role of self-efficacy and the influence of self-assessment in the FL classroom, teachers, may find out tools to increase motivation and to provide learners with instruction that is meaningful and useful. The purpose of this study has been to investigate the influence of a continuous self-assessment component on the self-efficacy of undergraduate students studying Spanish as a Foreign Language in two universities. This study aims to determine if the incorporation of self-assessment exercises in a FL classroom directly helped enhance students' self-efficacy beliefs by testing current theory in the FL classroom setting. To respond to this question, an ANCOVA analysis was carried out.

Chapter 4 will present complete results found in this study. First, descriptive statistics (mean, standard deviation and range) will be provided for the entire sample and separately for the treatment and control group sub-samples. Next, in order to test hypothesis number 1, results of the ANCOVA will be discussed. Finally, in order to test hypotheses number 2 and 3, results of Pearson correlations will be described.

4.1 SAMPLE DESCRIPTIVE STATISTICS

For the entire sample ($N = 104$) the average age was 23.9 years ($SD = 5.9$ years). Participants ranged in age from 18 to 65 years. In terms of sex, 56 (53.8%) participants were female and 48 (46.2%) were male. Eighty (76.9%) participants self-identified their race as European American, 18 (17.3%) participants were African American, 2 (1.9%) were Asian-American, 1 (1%) was Hispanic American, and three (2.9%) self-identified their race as “other.”

Thirty-seven (35.6%) participants stated that they had been exposed to a foreign language for a significant period of time before coming to the university. Sixty-seven (64.4%) participants disclosed that they were not exposed to a foreign language for a significant period of time before coming to the university. Among those participants who did have foreign language experiences in the past years 15 of them (40.5%) had taken Spanish as a foreign language courses previously, 8 (21.6%) had learned French previously, 4 (10.8%) had learned German previously, and 10 (29.7%) had prior experience in some other foreign language. Seventy-five (72.1%) participants stated that they had studied Spanish as a foreign language in high school prior to attending the university.

Twenty-eight informants (26.9%) reported not studying Spanish as a foreign language in the past. Regarding the highest level of completed formal education participants had attained 11 (10.6%) were in their freshmen year of college, 20 (19.2%) were in their sophomore year of college, 58 (55.8%) were in their junior year of college, 4 (3.8%) were in their senior year of college, 7 (6.7%) had completed a Bachelor’s degree, 1 (1%) had completed a Master’s degree, and 2 (1.9%) were in a Doctoral degree program.

Both the treatment group participants ($n = 62$) and the control group participants ($n = 42$) were of similar ages ($M = 24.2$ and $M = 23.4$, respectively); however, the treatment group had a

slightly larger range of age than the control group (*Range* = 18 to 65 and *Range* = 18 to 44, respectively). The treatment group showed a slightly greater percentage of male participants than the control group (51.6% versus 38.1%, respectively). Regarding race the treatment group evidenced a higher percentage of Euro-American participants, and a lower percentage of persons of color, than the control group. In the treatment group 82.3% of participants were European American compared to 69% of participants in the control group. In contrast, in the control group 23.8% of participants were African American compared to 12.9% participants in the treatment group.

Compared to the control group, fewer treatment group participants disclosed that they had been exposed to a foreign language for a significant period of time before coming to the university. Approximately 30% of treatment group participants compared to 42.9% of control group participants had significant previous foreign language experience. On the contrary, of those who had studied a foreign language, more treatment group participants (75.8%) had studied Spanish before attending the university than control group participants (66.7%). Finally, on average, the treatment group evidenced a slightly higher level of completed formal education than the control group. Table 1 compares descriptive statistics for the treatment and control groups on all relevant demographic characteristics.

4.2 RESULTS FOR SELF-EFFICACY AND SELF-ASSESSMENT

For the entire sample ($N = 104$) the mean total (i.e., first 35 specific items summed) pretest score on the Spanish as a Foreign Language Self-Efficacy Questionnaire (SFL-SEQ) was 120.7 ($SD = 55.8$). To facilitate interpretation, this total score and those of the sub-sample were

converted by item average scores (i.e., the sum of the first 35 items divided by 35) which are on the same 8 point scale as the original item. The SFL-SEQ pretest score for the entire sample was 3.4 ($SD = 1.6$). The average pretest score on the SFL-SEQ for the treatment group was 3.0 ($SD = 1.6$) compared to an average score of 4.1 ($SD = 1.4$) for the control group.

Table 1: Descriptive Statistics for Sample Population

Demographic Variable	Treatment Group ($n = 62$)	Control Group ($n = 42$)	Full Sample ($N = 104$)
Age (mean/SD)	24.2/6.4	23.4/5.2	23.9/5.9
Sex (Percentage)			
Male	51.6%	38.1%	46.2%
Female	48.4%	61.9%	53.8%
Race (Percentage)			
European American	82.3%	69.0%	76.9%
African American	12.9%	23.8%	17.3%
Asian American	1.6%	2.4%	1.9%
Hispanic American	1.6%	0%	1.0%
Other	1.6%	4.8%	2.9%
FL Experience (Percentage)	30.6%	42.9%	35.6%
SP Instruction (Percentage)	75.8%	66.7%	72.1%
Education Level (Percentage)			
Freshman	8.1%	14.3%	10.6%
Sophomore	16.1%	23.8%	19.2%
Junior	59.7%	50.0%	55.8%
Senior	4.8%	2.4%	3.8%
Bachelor's	6.5%	7.1%	6.7%
Master's	0%	2.4%	1%
Doctorate	3.2%	0%	1.9%

For the entire sample the mean total combined pretest score for the last five course confidence items on the SFL-SEQ was 26.5 ($SD = 6.8$), which converts to an item average score of 5.3 ($SD = 1.4$). The average pretest score for these five course confidence items for the treatment group was 5.2 ($SD = 1.3$) compared to 5.4 ($SD = 1.4$) for the control group. For the entire sample, the mean total (i.e., first 35 specific items summed) posttest score on the SFL-SEQ was 159.1 ($SD = 46.3$), which converts to an item average score of 4.5 ($SD = 1.3$). The average posttest score on the SFL-SEQ for the treatment group was 4.6 ($SD = 1.1$) compared to an average score of 4.5 ($SD = 1.5$) for the control group. These mean self-efficacy scores are similar to those reported by Mills (2004). She found that task-specific self-efficacy scores averaged 4.4 ($SD = 1.0$).

For the entire sample population the mean total posttest scores for the last five course confidence items on the SFL-SEQ was 25.5 ($SD = 8.9$), or an item average of 5.1 ($SD = 1.8$). The average posttest score for these five course confidence items for the treatment group was 5.0 ($SD = 1.8$) compared to 5.3 ($SD = 1.8$) for the control group. These mean self-efficacy scores are similar to those reported by Mills (2004). She found that course confidence (Grade) self-efficacy scores averaged 5.7 ($SD = 1.0$). Table 2 provides a summary of all results for the SFL-SEQ described above.

Results for the final Self-Assessment Questionnaire (SAQ) collected during the last week of class, administered only to the treatment group, had a mean total score of 9.4 ($SD = 1.4$). These three items reflected how much students believed they learned in the class. The range of scores for these three SAQ items combined was 5.0 to 11.7.

Table 2: Descriptive Statistics for the SFL-SEQ

SFL-SEQ Item	Treatment Group Mean/SD (n=62)	Control Group Mean/SD (n=42)	Full Sample Mean/SD (N=104)
Specific SES Pretest Score			
Total	106.2/55.7	142.1/49.2	120.7/55.8
Item Average	3.0/1.6	4.1/1.4	3.4/3.6
General SES Pretest Score			
Total	26.0/6.7	27.2/7.0	26.5/6.8
Item Average	5.2/1.3	5.4/1.4	4.5/1.3
Specific SES Posttest Score			
Total	160.8/40.2	156.3/54.9	159.1/46.3
Item Average	4.6/1.1	4.5/1.5	4.5/1.3
General SES Posttest Score			
Total	24.9/8.9	26.4/9.1	25.5/8.9
Item Average	5.0/1.8	5.3/1.8	5.1/1.8

4.2.1 Results for Research Hypothesis Number 1

Statistical hypothesis number 1 states that there is no statistically significant difference between posttest ratings of self-efficacy among undergraduates studying Spanish as a Foreign Language who receive a weekly classroom self-assessment component for one semester and those who do not, after controlling for the effect of pretest self-efficacy ratings in both groups. In order to test this hypothesis an ANCOVA was conducted. However, before the ANCOVA could be performed, several important assumptions needed to be tested. These assumptions include (a) a significant relationship between the covariate (i.e., pretest scores) and the dependent variable

(i.e., posttest scores), (b) homogeneity of regression, and (c) homogeneity of variance. All three of these assumptions must be met in order for the ANCOVA to be accurately interpreted (Mertler & Vannatta, 2002). The reader is referred to Mertler and Vannatta for further information about the statistical assumptions necessary for an accurate ANCOVA.

Regarding the first assumption, a Pearson correlation analysis indicated that, for the full sample, the covariate *was* statistically significantly related to the dependent variable ($r = .21$, $p = .04$). Regarding assumption two, results showed that this analysis was *not* statistically significant ($F[2,86] = 2.85$, $p = .06$). Thus, it can be assumed that the relationship between participants' pretest scores and post-test scores are the same whether participants were in the treatment or control groups. Results of a Levene's Test were *not* statistically significant, indicating that homogeneity of variance (assumption number three) is assumed in this study ($F[1,87] = 2.41$, $p = .12$). Therefore, results suggest that the variance in pretest and posttest scores for both groups are equal. Because all preconditions for ANCOVA were satisfied, the main analysis was carried out in order to test statistical hypothesis number 1.

ANCOVA results confirmed the significant relationship between the covariate (i.e., pretest scores) and the dependent variable (i.e., posttest scores) ($F [1,86] = 5.97$, $p = .02$); however, the *between group* effect for posttest scores was non-significant ($F [1,86] = 1.77$, $p = .19$). Specifically, the results showed that the treatment group did not significantly differ from the control group on posttest scores when controlling for pretest scores. Thus, this analysis did not support the alternative hypothesis that self-assessment would result in higher self-efficacy scores at posttest compared with self-efficacy scores for the control group. Table 3 summarizes results of the ANCOVA.

Table 3: Statistical Results of ANCOVA

SOURCE	SS	df	MS	F	p
Between Group	2.97	1	2.97	1.77	.19
Average Pretest Score	9.70	1	9.70	5.79	.02
Error	143.93	86	1.67		
Total	1992.81	89			

Although results of the ANCOVA suggest that posttest self-efficacy scores did not differ across groups after controlling for pretest self-efficacy scores, it was determined that an additional exploratory analysis was important. That is, in addition to testing inter-group differences (i.e., using an ANCOVA), it is reasonable to also test for *intra*-group differences in self-efficacy scores. Specifically, a 2X2 ANOVA was conducted in which group (control and treatment) served as a between subjects factor and time (pretest and posttest) as a within subjects factor. For the within subjects factor, participants' *own scores were compared to each other* in a manner parallel to that used in t-tests for dependent measures. This ANOVA yields three effects: a main effect for time (i.e., Did participants' scores change significantly from pre-to posttest, averaging across groups?); a main effect for group (i.e., Did the groups differ from each other, averaging across pre-and posttest scores?); and an interaction effect. The first statistic is the effect or outcome of interest, as it indicates whether the groups demonstrated differential degrees of self-efficacy change from pretest to posttest. In other words, did either the treatment group and/or the control group significantly improve grouping self-efficacy, even though their eventual posttest scores were comparable (as was shown in the ANCOVA analysis)? It is important to

note that this approach actually more closely corresponds to the research question, which addresses the extent of change from pretest to posttest, than the ANCOVA described previously.

Table 4: Statistical Results of Repeated Measures ANOVA

SOURCE	F	df1	df2	p
Group	4.71	1	87	.33*
Time	25.3	1	87	<001**
Group X Time	12.4	1	87	<0.1**

* $p < .05$

** $p < .01$

Prior to conducting the analysis, a Box's test of the equality of covariance matrices was conducted to test the assumption that the observed covariance matrices of the dependent variables are equal across group. The non-significant result (Box's $M = 6.28$; $F[3, 248313.9]$, $p = .11$) supported the equality of covariance matrices. Results of the ANOVA itself are displayed in Table 4.

Significant main effects were seen for both group and time, indicating that both the overall self-efficacy (averaged across pretests and posttests) and the pretest and posttest scores (averaged across control and treatment groups) significantly differed. Importantly, results revealed a significant group by time interaction, indicating that the degree of change from pretest to posttest differed significantly between groups. This result directly addresses the research question (as well as preventing straightforward interpretation of the main effects).

To follow up on the significant interaction, pairwise simple effects were examined using t-tests for dependent measures. Specifically, dependent t-tests were conducted to compare the pretest and posttest scores of both groups separately. In support of the alternative hypothesis,

results revealed that self-efficacy scores *did* increase significantly from pretest ($M = 3.04$, $SD = 1.50$) to posttest ($M = 4.60$, $SD = 1.15$) for treatment group participants ($t = -7.18$ [$df = 53$], $p < .001$), but self-efficacy scores did *not* significantly increase from pretest ($M = 4.19$, $SD = 1.25$) to posttest ($M = 4.47$, $SD = 1.57$) for control group participants ($t = -.90$ [$df = 34$], $p = .38$). Figure 3 provides a graphic depiction of the mean differences between pretest and posttest scores for the treatment versus control groups. As shown in Figure 3, average self-efficacy scores for the treatment group increased substantially from pretest to posttest. Although treatment group participants' self-efficacy scores were significantly lower at the beginning of the semester than control group participants' scores, when the semester concluded the former group had even higher self-efficacy scores than the latter group.

In conclusion, null hypothesis number 1 was rejected. Statistical results support the alternative directional hypothesis, which states that undergraduates studying Spanish as a Foreign Language who receive a weekly classroom self-assessment component for one semester likely report higher posttest ratings of self-efficacy than pretest ratings compared to those who do not.

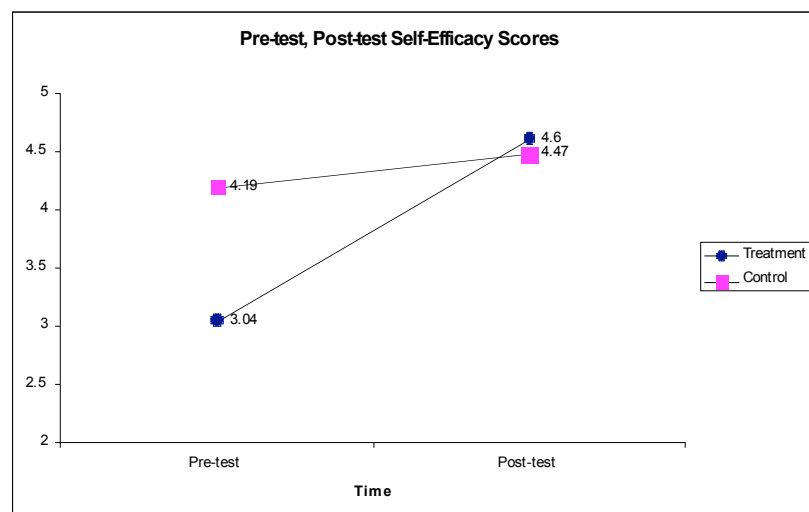


Figure 3: Changes in Self-Efficacy Scores

4.2.2 Results for Research Hypotheses Number 2 and 3

Statistical hypothesis number 2 states that there is no relationship between overall positive self-assessment at the end of a Spanish as a Foreign Language learning experience and self-efficacy. Statistical hypothesis number 3 states that there is no relationship between overall negative self-assessment at the end of a Spanish as a Foreign Language learning experience and self-efficacy. Pearson correlations for the treatment group were used to test these two hypotheses. First, correlations tested the association between self-assessment questionnaire item 2, item 7, item 11, and the self-assessment total score (i.e., all three self-assessment items summed), and the average posttest self-efficacy score on all 35 specific SFL-SEQ items for the treatment group. Then, correlations tested the association between self-assessment questionnaire item 2, item 7, item 11, and the self-assessment total score, and the average posttest self-efficacy score on the five course confidence SFL-SEQ items for the treatment group. For the purpose of clarity, self-assessment item number 2 related to participants' rating of their own knowledge regarding the specific topics taught during the last week of class; self-assessment item number 7 included participants' rating of their own beliefs about how much they had learned in general during the last week of class; self-assessment item number 11 related to participants' rating of how much they believed they learned during the entire SFL class as a whole.

Results demonstrated that participants' average SFL-SEQ specific scores were not significantly related to any of the three individual self-assessment items alone or to the total self-assessment score. However, participants' average SFL-SEQ course confidence scores were significantly related to self-assessment item number 2 ($r = .33, p = .02$), self-assessment item number 7 ($r = .40, p < .01$), self-assessment item number 11 ($r = .47, p < .01$), and the total self-assessment score ($r = .52, p < .001$). Table 5 shows all statistical results for the relationship

between self-efficacy and self-assessment scores. It is noted in Table 5 that for all items a positive relationship existed between self-assessment and self-efficacy scores. That is, as participants' self-assessment scores increased (i.e., students believed they knew more about the topics taught or learned more from the course in general), self-efficacy scores also increased. As self-assessment scores decreased, self-efficacy scores also decreased. But this relationship was only statistically significant between self-assessment scores and more global self-efficacy beliefs.

Table 5: Zero-Order Correlations Between Self-Efficacy and Self-Assessment

Self-Assessment Questionnaire Items	Average Self-Assessment Task-related Scores	Average Self-Efficacy Confidence Scores
Self-Assessment Item 2	.21	.33*
Self-Assessment Item 7	.19	.44**
Self-Assessment Item 11	.21	.47**
Self-Assessment Total Score	.26	.51**

* = $p < .05$

** = $p < .01$

This study attempted to investigate how Spanish as a FL students could heighten their sense of self-efficacy while engaged in an undergraduate course during one semester. Results of this study support both self-efficacy theory and the link between engagement in continuous self-assessment and heightened efficacy. Figure 2 graphically depicts a theoretical pathway for how self-assessment helps enhance self-efficacy in the FL classroom. As described earlier, when summarizing the purpose for this study, if significant results were found certain theoretical implications were expected. These theoretical implications, and how they relate to the pathway depicted in Figure 2, are summarized below:

- The more students are able to identify their strengths and weaknesses in the Foreign Language classroom, the more they will think they are learning.
- The more a student believes they are learning, the more likely they will be to put continued effort into the learning process.
- The more effort and persistence a student spends with a task, the more likely they will be rewarded for their own efforts (e.g., learning the material, receiving a high grade, being commended by others).
- The more a student is rewarded for achieving their goal, the more likely they will be to develop an internal locus of control which will translate into independent thinking and behavior related to the task.
- The more a student develops an internal locus of control, the more likely they will become self-guided in the learning process.
- The more frequently and easily learners are able to incorporate self-appraisal into the learning process, the more authentic mastery experiences will become available to them.
- As mastery experiences increase, self-efficacy will be heightened and generalized to related experiences and environments. Thus, a reinforcing pathway involving self-assessment and self-efficacy may be established.

Results of this study not only showed that students engaging in continuous self-assessment evidenced significant increases in self-efficacy, but that when self-assessment exercises were absent from the curriculum, self-efficacy did not significantly increase over one semester of learning. Moreover, the significant positive correlation between self-assessment and

self-efficacy beliefs indicates that the more students believe they have learned during a period of time in a Spanish as a FL course, the higher their self-efficacy will be.

Qualitative information generated by students on the self-assessment questionnaire provides additional support for the benefits of self-assessment in the FL classroom. For example, the following representative comments were listed by students when answering the question “Looking back, I realize that I should change my study habits/learning approach/priorities in the following way” (self-assessment questionnaire number 8):

- “I need to spend more time with verb conjugations and also maybe make vocabulary flash cards to help me learn better.”
- “I should study more after class instead of the next day so the material is still fresh in my head.”
- “I should prepare more for class, maybe breaking things into chunks.”
- “By not just understanding the grammar and vocabulary in the chapters, but to know how to spell the words and pay closer attention to accent marks.”
- “I need to study vocabulary and irregular verbs more often.”

Similarly, the following representative comments were listed by students when answering the question “Overall, I think I still need to work on. . . .” (Self-assessment questionnaire number nine):

- “My verbs! And review my vocabulary.”
- “Speaking in Spanish, and speaking with confidence!”
- “Pronunciation, fluidity in speaking Spanish sentences.”
- “Listening comprehension.”
- “Sentence structure and remembering words in the past.”

These quotes show how students have effectively incorporated self-assessment exercises into their learning process. Students reflected not only on their own strengths and weaknesses related to learning Spanish, but also the next step toward their goal of Spanish fluency. It is hypothesized that as students developed this type of self-appraisal ability, they became more persistent in achieving their own stated goals (i.e., related to specific learning tasks). It is assumed that as students engaged in self-assessment exercises, and their self-reflection abilities evolved, a stronger internal locus of control resulted. Clearly from the examples above students apparently gained a more conscious understanding of what they needed to master. Therefore, it is more likely they will engage in mastery experiences. As explained in self-efficacy theory, these experiences will more easily and quickly lead to increased learning efficacy.

4.3 SUMMARY OF RESEARCH FINDINGS

The primary objective of this study was to determine if the introduction of a self-assessment instrument influenced students' overall self-efficacy in a Spanish as a FL classroom. Null hypothesis 1 stated that there was no difference between posttest ratings in self-efficacy among students who received weekly self-assessment and those who did not after controlling for pretest self-efficacy beliefs. It was hypothesized that undergraduates studying Spanish as a FL who received a weekly classroom self-assessment component for one semester would report higher self-ratings on a self-efficacy instrument compared to student who did not participate in course-related self-assessment exercises. That is, students' self-efficacy scores would improve significantly more from pretest to posttest if they engaged in self-assessment throughout the semester (i.e., the treatment group) than if they did not (i.e., the control group). Findings showed

that, when students' pretest self-efficacy scores were controlled statistically, students' posttest scores did not differ significantly whether they were in the treatment (i.e., self-assessment) group or not. Contrary to expectations, although students in the treatment group did evidence higher posttest self-efficacy scores than students in the control (i.e., non-self-assessment) group, differences in scores between the two groups did not reach statistical significance.

A follow-up 2X2 repeated measures ANOVA was conducted in order to more accurately test whether significant pretest/posttest differences existed in self-efficacy scores. Although this statistical procedure can test several distinct aspects of group differences, the primary computation used evaluated whether statistically significant within-group differences were found for each of the two groups. That is, ANOVA tested whether treatment group self-efficacy scores increased significantly from pretest to posttest, and separately whether control group self-efficacy scores increased significantly from pretest to posttest (without first attempting to control for between-group pretest differences). Findings showed that treatment group participants' self-efficacy scores increased significantly from pretest to posttest. However, control group participants' self-efficacy scores did *not* increase significantly from the beginning to the end of the semester.

As shown in Figure 3 on page 75, the increase in treatment group self-efficacy scores is marked and dramatic compared to pretest/posttest control group differences. In fact, although treatment group participants' pretest scores were slightly lower than control group participants' pretest scores (i.e., 1 point lower on an 8-point Likert scale), by the end of the course treatment group self-efficacy scores actually surpassed those of the control group. It should be noted that, as the figure displays, control group self-efficacy scores *did* increase from pretest to posttest. This change was expected and in fact hoped for because it demonstrates that as students learn

during a Spanish as a FL course their beliefs about their own self-competence and subject mastery increases. More saliently for this study, however, the increase in learners' self-efficacy was markedly (and statistically significantly) higher when students *also* engaged in continuous self-assessment regarding their own strengths and weaknesses throughout the semester. This finding yields an affirmative answer to research question number 1, and provides direct evidence that the inclusion of a self-assessment component increases the self-efficacy of the students in a Spanish as a FL course.

Null hypotheses 2 and 3 stated that there was no relationship between overall positive and negative self-assessment and self-efficacy at the end of a SFL learning experience. Statistical findings showed that these two null hypotheses were both rejected. Research questions number 2 and 3 – whether positive and negative self-assessment is correlated with higher or lower self-efficacy, respectively - are perhaps even more salient for this study given the results described above. Findings showed that neither specific self-assessment scores (on three specific self-assessment items), nor a total combined self-assessment score, significantly correlated with what in this study was termed total 'specific' self-efficacy scores. Total specific self-efficacy scores included the sum of all 35 specific items on the SFL-SEQ. These items measure students' self-efficacy on various specific learning tasks related to the Spanish language (see Appendix A). In contrast, *all* specific self-assessment scores (self-assessment questionnaire items 2, 7 and 11), *and* the total combined self-assessment score on these three items, significantly correlated with students' total course confidence self-efficacy scores. Total course confidence self-efficacy scores included the summation of five items that assessed how strongly students believed in their Spanish competence as a whole and how confident they were in their ability to attain a specific grade in the course (e.g., that they would do well in the course, receive an A, B, C, etc.) (see

Appendix A). The direct/positive correlations demonstrated that as students' self-assessment scores increased on any of the self-assessment questionnaire items, their overall/course confidence self-efficacy also increased. Conversely, as their self-assessment scores decreased, a corresponding decrease in overall/course confidence self-efficacy scores was also evident.

It is interesting that a stronger relationship existed between self-assessment scores and global self-efficacy beliefs about the learners' ability to perform well in the course than self-efficacy related to specific learning tasks. From theoretical perspective of self-efficacy, however, this finding is logical. In this study the relationship between self-assessment and self-efficacy was tested only during the last week of class (i.e., at posttest). Therefore, students were essentially evaluating their own strengths and weaknesses, and how much they learned, in a more global way after the course was largely completed. The fact that specific self-efficacy scores did not significantly correlate with self-assessment scores at posttest may simply be an artifact of when students answered both questionnaires. That is, if self-assessment scores were correlated with self-efficacy scores toward the semester mid-term, perhaps the association between self-assessment and specific self-efficacy scores would have been stronger. In essence findings show that, at the end of a Spanish as a FL course, as students' beliefs about their progress and learning outcomes improve, their beliefs about their own global competence increases. But this effect may not translate into heightened self-efficacy related to specific learning tasks.

Results of research hypotheses 2 and 3 add detail and further support to the information found about overall pretest/posttest differences related to research question number 1. Research question number 1 essentially investigated the advisability of including self-assessment in a Spanish as a FL curriculum. Since results showed that inclusion of these exercises significantly increased students' self-efficacy, it is logical to ask whether self-assessment itself was a driving

force in this outcome. Research questions 2 and 3 help to more directly answer this related question, essentially probing ‘beneath’ the main effect (i.e., within group differences) found in students’ pretest to posttest self-efficacy scores. The affirmative answers to these final two research questions bolsters confidence that pretest/posttest increases in self-efficacy were a direct consequence of the positive relationship between students’ self-assessment and global self-efficacy scores. For example, if significant results were found when testing research hypotheses 2 and 3, but not hypothesis 1, one would have reached the conclusion that self-assessment and self-efficacy were related in some way but practical implications for instructors would have been questionable (since a self-assessment component did not lead to pretest/posttest increases in self-efficacy). If significant results were found when testing research hypothesis 1, but not 2 and 3, evidence would have shown that treatment group participants’ self-efficacy improved over a semester time span, but the extent that this outcome was due to the inclusion of a self-assessment component would have been speculative.

As results show, the more students self-assessed, the more their self-efficacy increased, showing that they felt they exercised control over their learning process, not the other way around. It has been demonstrated by other researchers that self-assessment could be used as an indicator of academic performance (Mills, 2004; Oskarsson, 1997; Swanson & Lease 1990; Blanche & Merino 1989; Janssen-van Dieten, 1989; Clark, 1981). The findings of this study support previous research by Zimmerman et al. (1992). Zimmerman et al. found that academic attainment was regulated through self-motivation and that this, in turn, promoted greater academic attainment (Pajares & Schunk, 2001). Given that self-assessment opportunities in this research allowed the learners to set goals and be self-motivated, it can be assumed that their assessment of their academic attainment was correct. Results of this study also align with

previous research showing that self-efficacy should be measured with discrete, specific tasks (Chuang, 2004; Mills, 2004; Multon et al., 1991; Pajares, 1996; Schunk, 1991) as was provided in this study.

5.0 DISCUSSION

5.1 SUMMARY OF THE TOPIC AND NEED FOR THE STUDY

In the field of second and foreign language learning, motivation has been shown to be a key factor of interest for researchers (Clement, Dörnyei, & Noels, 1994; Dörnyei, 2001; Ehrman, 1996; Gardner & McIntyre, 1993; Schmidt, Boraie, & Kassabgy, 1996). Knowing how and why students engage with their learning, rather than approaching classroom experiences with disinterest, is of particular concern for teachers of subjects typically considered challenging, such as foreign languages. Another piece of the learning puzzle is how learner belief structures influence the ways in which students approach a specific learning task. Known as self-efficacy, learners' beliefs about their own self-competence in ultimately being successful regarding task completion, has the potential to play a key role in the learning process. Learners' motivation, persistence, and their feelings of self-confidence can be increased as their self-efficacy strengthens (Bandura, 1984). These important factors in the learning process can decrease as self-efficacy weakens. Therefore, how learners think about their ability to complete a learning task can regulate the ways in which they approach that specific task or their perceived ability to complete it as well as how they respond to instruction in classroom settings.

Bandura (1994) has suggested that the source of most human motivation is cognitively constructed. This point of view posits that motivation generates from sources internal rather than

external to the learner. Sources such as self-talk, beliefs about expertise and ability, as well as the internalization of praise and critique all affect how individuals approach new learning tasks. Further, research has demonstrated the role that motivation and self-confidence have in the classroom (Clément et al., 1994). However, despite clear connections between self-efficacy and motivation, very little research has been done on self-efficacy in the foreign language (FL) classroom.

The theoretical literature on self-efficacy links this construct to self-assessment (Wilhite, 1990). Self-assessment has been defined as the generation of information about the learners provided by the learners themselves. Thus, self-assessment is a form of intra-communication (rather than external communication, such as from an instructor), useful in processing one's own stage of development during the learning of a new task. This information includes learners' thoughts about their abilities, the progress they think they are making, and what they think they can or cannot do yet regarding what they have learned (e.g., in a FL course) (Blanche & Merino, 1989). One outcome of more frequent and in-depth self-assessment is that theoretically it (a) increases learners' awareness of their own strengths and weaknesses in regard to their educational goals (Harris & McCann, 1994), (b) leads learners toward a more comfortable approach to learning (i.e., one that fits their own learning style) (Oscarson, 1997), and (c) helps learners feel more ownership in learning tasks, thus motivating them to become more engaged in specific learning exercises (Dodd, 1995). Theoretically, the more one's ability to assess one's ability related to a task, the more likely one will develop a feeling of mastery over the task. However, the link between a learner's beliefs in their own self-competence or self-mastery (i.e., termed self-efficacy) has not previously been studied empirically. In particular, the relationship between self-assessment and self-efficacy has not been evaluated in Spanish as a FL classroom.

The purpose of this study was to investigate whether Spanish as a FL undergraduate students' self-efficacy increased significantly more over the course of one Summer semester if they engaged in weekly task-related self-assessment exercises than if they did not. The following research questions guided the research inquiry: (a) Does the introduction of a self-assessment instrument influence students' overall self-efficacy in a Spanish as a Foreign Language classroom; (b) Does positive overall self-assessment at the end of a Spanish as a Foreign Language learning experience correlate with self-efficacy; and (c) Does negative overall self-assessment at the end of a Spanish as a Foreign Language learning experience correlate with self-efficacy? If self-assessment can indeed enhance students' motivation and ultimately their self-efficacy, then introducing self-assessment in the FL classroom, and teaching self-assessment skills directly to students, may have direct implications on how quickly and easily students learn a FL. If theory can be expanded in this way, perhaps the creation of self-assessment tools can evolve so that they can focus more specifically on self-efficacy development in the Spanish as a FL classroom.

5.2 IMPLICATIONS FOR THEORY

5.2.1 Self-Efficacy and the FL Classroom

For Spanish as a FL students to have the best chance at increasing their self-efficacy, they must not rely solely on instructors' verbal persuasion or feedback. Students must gain learner independence (i.e., self-guided mastery) with regard to developing strategies to reach their own learning goals. This study suggests that when students are engaged in self-assessment, students'

self efficacy increases significantly. Relatedly, once efficacy begins to build among learners the pattern between self-efficacy and self-assessment may be mutually reinforcing. Bandura (1997) contends, “People act on their efficacy beliefs and assess the adequacy of their self-appraisal from the performances they manage to achieve” (p. 81). Therefore, as in this study when students are provided the opportunity to self appraise following instruction they will evaluate their strengths and weaknesses after attempting additional actions in the near future. If their self-assessment was accurate their self-efficacy may increase. The theoretical relationship between self-assessment and self-efficacy is clearly indicated in Figure 3. This figure graphically represents the statistical results of a 2X2 ANOVA testing research hypothesis 1. Students who received weekly self-assessment exercises in the FL classroom demonstrated statistically significant increases in self-efficacy beliefs regarding specific FL tasks from the beginning to the end of the semester. Moreover, students who did not participate in self-assessment exercises did not show significant increases in self-efficacy over the course of the semester. The practical implications of these findings include the fact that as students self-assess, their own strengths and weaknesses, they are likely to develop more self-efficacy related to their learning process. This may ultimately motivate students further and lead to performance success and yet higher self-efficacy. When students believe they have the ability to assess their own learning, and that this strategy will lead to academic success, students will become more self-guided in the learning process. Thus, this study supports Bandura’s (1986) contention that authentic mastery experiences are influential sources of efficacy information, because learners are reflecting on their experiences and what they did to succeed –or not- in their learning process, thus gaining insight about how to succeed in the course.. The long-term result of this theoretical pathway is that students may become more assertive and active in their own learning, and less vulnerable to

setbacks when difficult learning tasks are undertaken. Therefore, students may persist longer not only in classroom-specific Spanish learning tasks, but perhaps also when learning Spanish beyond the context of the Spanish as a FL classroom.

5.2.2 Self-Assessment in the FL Classroom

Theoretically, a key component of the pathway described above is the continuous nature of self-assessment students engaged in throughout the semester. Self-assessment has been found to work better when it is used in a continuous way (Oskarsson, 1997). Self-assessment provides learners with more opportunities to develop self-guided appraisal strategies.. The more students are comfortable and skilled with this process, the more likely classroom learning experiences will translate into mastery experiences.

Due to a heightened awareness of one's own role in the learning process and one's own strengths and limitations (self-assessment skills), the likelihood that one's motivation and persistence will grow is increased. Thus, the theoretical pathway described above has important practical implications for FL instruction.

5.3 IMPLICATIONS FOR THE FOREIGN LANGUAGE CLASSROOM

In the FL classroom, self-efficacy can be a very valuable tool. Self-efficacy is related to motivational processes (Bandura 1994), as self-beliefs play a key role in the process of self-regulating motivation. . Self-assessment can help advance this process, given that the instructors receive information directly from learners and can then tailor their classes to take advantage of

learners' strengths. At the same time, instructors could work towards improving learners' self-efficacy in the subject. If self-assessment becomes part of the overall curriculum in the FL classroom, both learners and instructors benefit: learners may feel more empowered because they can effectively reflect on their learning process; instructors can better help learners enhance their efficacy and motivation (perhaps even increasing instructors' own self-efficacy).

Therefore, it is important that instructors promote students' truthful self-assessment throughout the learning of a specific topic (or even a course). With a sense of self-efficacy comes a more realistic self-appraisal of one's ability to cope with the task at hand, given that to gain this self-efficacy the learner should have reflected on what their strengths and weaknesses are. Self-efficacy may provide not only a realistic assessment of one's coping resources, but might also enhance the learner's access to these resources. Instructors, through self-assessment could monitor the learners' expectations for success (usually tied to a high grade and the hope of increasing their GPA) and gauge their determination and resilience in the face of tasks they consider difficult. This study suggests that, if instructors focus more on assessing learners' self-assessment, they can become more aware of what learners believe they need to improve to be successful in a course, and learners' self-efficacy related to those tasks. It is therefore useful for instructors to use the information generated by self-assessments to measure and ultimately enhance learners' self-efficacy.

Adapting Schunk's definition (1991), self-efficacy in the FL classroom can be seen as judgments learners make regarding their own capabilities to organize and execute the tasks required to successfully perform in the language they are learning. Findings from this study can be inferred to suggest that potentially instructors can therefore help low-achieving students perform better and persist in studying a FL by benefiting from the effects that the introduction of

continuous self-assessment brings to a learner's self-efficacy. . Also, the situation-and-domain specific nature of self-efficacy can be used to the advantage of the learners, given that self-efficacy corresponds with performance criteria in very discrete, specific and proximal tasks. Results of this study show that self-assessment and self-efficacy are related and mutually reinforcing, self-assessment should relate to the situation-and-domain-specific nature of self-efficacy. What is important for self-efficacy should also be important for self-assessment, and instructors should be aware of this fact when constructing self-assessment questionnaires so they are compatible with a schema that the learners will find more easy to use and more integrated to the instruction they are receiving.

5.4 PEDAGOGICAL IMPLICATIONS FOR SELF-EFFICACY

It is important for FL instructors to be aware of the level of self-efficacy of the students, because in this way, they would be able to tailor their instruction in a way that learners' self-efficacy is can more easily be increased. Because research has shown that certain experiences can more readily enhance self-efficacy (i.e., mastery experiences), instructors should attempt to formally incorporate such activities into the classroom. By modifying classroom practices to assess and promote self-efficacy in the classroom instructors may ultimately help learners gain motivation and self-confidence.

When assessing self-efficacy in the FL classroom, instructors should be aware that self-efficacy is an inferential process in which learners weigh and combine the contributions of personal factors. Instructors would be wise to help learners become more aware of the benefits of mastering specific tasks and their ability to complete them in the FL classroom.. In academic

settings, like the one in this study, the instruments used to assess self-efficacy and self-assessment would be more effective if they ask students to rate their confidence in solving specific problems, performing specific reading, writing, speaking or listening tasks, or engage in certain self-regulatory strategies. For example, when assessing the speaking ability of Beginning Spanish students, the instructor should define the level of ability needed and the functions and grammar points assessed to what the learners should have mastered at that point in their instruction. Students are then asked to rate the strength of their beliefs in their capability to speak at the level identified. For example, an item in the self-efficacy questionnaire given to the learners could be, “How confident are you that you can give a person directions from one place to another using a map?” The instrument should provide the student with a scale that ranges from 1= weak self efficacy to 10 = strong self-efficacy. Also, the task evaluated should be something specific that the learners have done before (in our case, it would be giving directions from a map).

5.5 IMPLICATIONS FOR RESEARCHERS

When assessing self-efficacy the wording of the items should be carefully chosen. When assessing self-efficacy it is important to use terms such as “can,” (which is a judgment of capability) rather than “will” (which is a statement of intention). Because self-efficacy changes over time, because self-efficacy is a unique construct, and because self-efficacy instruments often must be adapted to specific tasks or the ability the students believe they have to complete or specific topics (as in this study), internal consistency reliability is important for these instruments. This form of reliability tests how consistently an instrument measures a particular

construct across its various items. Results of this study showed that the SFL-SEQ has a Cronbach's Alpha of .98, indicating a very high level of internal consistency for this instrument. Since the researcher used the recommendation cited above when choosing and adapting the SFL-SEQ, results of this study support the above recommendation for instructors.

Creating tasks that involve learners at their level of proficiency, and that encourage social situations where learners interact with peers, will lead them to perform using situation- and-domain specific competences gained during instruction. Students would have different sources of efficacy, such as first-hand experience successfully completing tasks at their level of proficiency, learning from their peers performing well at the same level, and receiving acknowledge for their achievement from the instructor without adding too much anxiety to the experience. In this case, self-efficacy-friendly tasks would provide them with a cognitively rich learning environment that is both high in motivation and communicative.

As we have seen in previous chapters, self-assessment has been widely used in many fields. In this study, instructors in the treatment group used self-assessment to provide self-guidance and reflection by stating from the beginning the fact that self-assessment did not have any effect on their grade in the course. That may have motivated some students to be more candid and forward with what they considered as their problems in the course. The pattern of self-assessment followed by increased motivation to achieve may have resulted in higher self-efficacy for participants in the treatment group. This may well be the most important aspect of the inclusion of self-efficacy activities that instructors should take into account when introducing self-assessment in their courses.

Furthermore, self-assessment seems to work by boosting learners' motivation and self-esteem. As seen in this study, self-assessment in the FL classroom can also have other goals,

such as enabling learners to assess their total achievement at the end of a course or course unit, or as a positive influence on the overall learning process. We could then use self-assessment as part of the overall learning process to help learners understand their behaviors, helping them recycle what they have learned, and at the same time boosting their self-esteem and self-motivation. Self-assessment can also be used to provide the learners with an end-of-course view of their learning process as well as a step-by-step account of it. As this study demonstrates a combination of ranking items and feedback items can benefit learners. For example, some items could use a 4-item scale ranging from “not at all” to “thoroughly/extremely.” In some items learners should be asked to describe their weaknesses, and the changes they would make to their study habits (so more qualitative information is generated).

Moreover, the benchmarks used should concern a specific task and the confidence the learners have to complete it and avoid assessing specific tasks with global benchmarks or rubrics. This would only lead to an erroneous self-assessment from the learners. The more specific and focused a self-assessment instrument is the greater and more objective it will be when the learners self-assess their behaviors. Finally, the kinds of questions we ask in self-assessment are important (i.e., the ‘how’ is just as important as the ‘what’). When considering the FL classroom, it should be noted that these questions should be written in the first language of the learners. Giving self-assessment in the learners’ first language would make it easier for them to reflect on the learning taking place, would not create anxiety or misunderstanding on the learners, and would facilitate their integrating self-assessment in their overall learning processes.

Qualitative information generated by students on the self-assessment questionnaire provides additional support for the usefulness of self-assessment by FL instructors. For example, the following representative comments were listed by students when answering the question “I

would want to see the instructor provide more lessons on the following points/skills/areas” (self-assessment questionnaire number 10):

- “Grammar and blue page exercises.”
- “One-on-one listening and speaking – more Charlas, but not for a grade.”
- “More explanation on ‘para’ versus ‘por’.”
- “I would prefer to take exams at the beginning of class when I’m fresh.”
- “Everything is flowing well – it’s up to the student to learn the information.”

These quotes show that students, when self-assessing their own learning needs, also consider how instructors can help reinforce their own learning process. For example, in the last quote this student shares the philosophy that students’ effort, persistence, and motivation is vital for successful second language learning. As explained above, instructors can use students’ self-guided appraisals as information that may enhance future teaching methodology.

In summary, results of this study support assertions that (a) self-efficacy is an important variable leading to learners’ success as defined by goal attainment and it may increase persistence and motivation, (b) that instructors should be cognizant of students’ self-efficacy throughout a particular course, and (c) that self-efficacy should be evaluated using instruments which are task-specific and geared toward learners’ specific subject matter. Results of this study may also support contentions stating that (a) self-assessment exercises are associated with increased self-efficacy, (b) self-assessment exercises should be incorporated into course curricula because it may lead to learner independence and subsequent locus of control development, (c) self-assessment information (i.e., students’ personal evaluations) should not be directly linked to their course grades, and (d) information gleaned from self-generated appraisals (i.e., students’

self-assessments) should be used by instructors as a means of enhancing teaching methodology. Strategies for using this information during classroom instruction were provided above.

5.6 LIMITATIONS AND IMPLICATIONS FOR FUTURE RESEARCH

Although results of this study were statistically significant, and the research design and instruments were sound, the study was not without limitations. These limitations must be considered when attempting to generalize results to educational settings. For example, one limitation of this study included the fact that self-assessment exercises were carried out over a short period of time. Because the courses selected for study occurred over the Summer semester, the length of classes was reduced to 5 weeks (rather than the usual time of 15 weeks during Spring and Fall semesters). As a result students completed only five self-assessment questionnaires. Although this seemingly led to a significant increase in students' self-efficacy, the overall impact of self-assessment on students' learning process must have been limited. In a 15-week semester the use of self-assessment may become easier for students, more comfortable, and it would be more continuous in nature. A 5-week semester implies intensive study time and a rigorous curriculum for the students, who may feel rushed or without time to thoroughly digest and reflect upon what has been taught. It is possible that studying a 15-week semester may provide a better opportunity to fully discover the benefits of self-assessment.

Another possible drawback was that the two university settings did not use the same textbooks in their Spanish as a FL courses. Even though the textbooks used did have basically the same topics, and they covered similar functions and grammar points, spurious differences in teaching methodology could have been controlled better if both institutions used the same

textbooks. Relatedly, although the communicative approach to learning was officially followed at both universities, it is not absolutely certain that all the instructors adhered to this methodology. A previous survey of the instructors, and the use of class observations before assigning classroom to the treatment and control groups, may have helped overcome this drawback.

Participants in this study were a convenient sample. This study was therefore quasi-experimental rather than a true experimental design (i.e., random sampling). Because of this fact, the researcher could not warrantee that participants were similar in term of self-efficacy related to foreign language ability at the beginning of the experimental period. As shown in the results, treatment group participants evidenced lower self-efficacy at the start of the experimental period than control group participants. It is not possible to know whether this fact was an anomaly related to participants in the treatment group, or if these differences were simply random error. It must be acknowledged that results of this study should be cautiously applied to students who begin their foreign language education with high self-efficacy.

Finally, this study was limited to first-year undergraduate Spanish as a FL students. Even though results may be applicable to this population, caution is urged when generalizing the results to other populations (e.g., graduate-level Spanish students) and settings (e.g., high schools). Since different Spanish levels emphasize different skills, the link between self-assessment and self-efficacy among skills not focused on in this study cannot be guaranteed.

Regarding recommendations for future research, it would be helpful to know if the relationship between self-assessment and self-efficacy holds for intermediate and advanced Spanish students. When conducting this type of study, it would be important to create new instruments, adjusting them accordingly. Moreover, the link between self-efficacy, self-

assessment and language achievement could be explored in more detail by correlating self-assessment experiences, self-efficacy measures and final grades (or other indices of student achievement). Future researchers are advised to investigate the influence of demographic variables' influence on self-efficacy, an aspect that was not incorporated into the current research design. For example, the influence of socio-economic status on the students' self-efficacy could be studied, in addition to common demographic variables such as sex and ethnicity. Perhaps an even more salient variable to consider when studying self-efficacy is personality. Certain personality traits theoretically may correlate with degree of self-efficacy more highly than stable demographic factors. Perhaps future researchers could add simple personality instruments to their research design in order to rule out this factor as a confounding variable when studying self-assessment and self-efficacy. It is also recommended that future researchers use a larger and more geographically diverse sample when studying this phenomenon. It would be interesting to discover whether self-efficacy increases at a different rate for students with different cultural backgrounds, or if students from different geographic locals are more or less comfortable using self-appraisal during the learning process.

One potentially illuminating way to assess self-assessment's influence on students' self-efficacy would be to carry out a longitudinal study investigating this phenomenon. Perhaps first-year Spanish students could be followed for four consecutive years (levels 100 through 400) so that the vagaries of self-efficacy could be evaluated over students' development. This type of research design would provide even more information, and the results could potentially advance theory and instruction in a new way, by providing researchers and instructors with tools to better research and better enhance students' learning of a FL. Finally, future researchers are encouraged to incorporate qualitative methodology into their study of self-assessment and self-efficacy.

Table 6: Summary of Results Related to Statistical Hypotheses

Statistical Hypothesis	REJECTED	NOT REJECTED
Null Hypothesis Number 1	Yes	
Null Hypothesis Number 2	Yes	
Null Hypothesis Number 3	Yes	

Since self-efficacy is ultimately an internal cognitive phenomenon (Bandura, 1994), qualitative research in this area may prove more efficacious at uncovering why self-efficacy increases for some students and how the process unfolds at different stages during the learning process. With additional research on this highly elusive but important phenomenon, FL educators can become better equipped to help students self-assess their strengths and weaknesses, self-appraise how to reach their learning objectives, and increase their learning efficacy.

APPENDIX A

SPANISH AS A FOREIGN LANGUAGE SELF-EFFICACY QUESTIONNAIRE

Self-Efficacy Scale Student: _____

Directions:

Please use the following scale to answer the following statements. Circle the number that best describes **how sure you are that you can** perform each of the Spanish skills below.¹

		0	1	2	3	4	5	6	7		
										No chance	Completely Certain
1	Read and understand the main ideas of a short article about Spanish traditions.	0	1	2	3	4	5	6	7		
2	Listen to and understand the main ideas of a short conversation in which a tourist requests information and receives simple directions.	0	1	2	3	4	5	6	7		
3	Read and understand the main ideas of a <i>long</i> magazine article about Spanish traditions.	0	1	2	3	4	5	6	7		
4	Listen to and understand the details of a short conversation between an adult and a teenager speaking in Spanish.	0	1	2	3	4	5	6	7		
5	Read and understand the main ideas of a Christmas card message from a Spanish-speaking friend.	0	1	2	3	4	5	6	7		
6	Listen to and understand the main ideas of a short conversation about personal topics between two Spanish-speaking friends.	0	1	2	3	4	5	6	7		
7	Read and understand the details of a short story in Spanish.	0	1	2	3	4	5	6	7		
8	Listen to and understand the details of a conversation in Spanish between a waiter/waitress and a customer.	0	1	2	3	4	5	6	7		
9	Read and understand the details of a short letter to the editor of a Spanish-language teen magazine.	0	1	2	3	4	5	6	7		
10	Listen to and understand the details of one side of a telephone conversation in Spanish about the weather.	0	1	2	3	4	5	6	7		
11	Read and understand the details of a page from a tourist brochure describing various organized activities in a Spanish-speaking country.	0	1	2	3	4	5	6	7		
12	Listen to and understand the main ideas of a television commercial for food in Spanish.	0	1	2	3	4	5	6	7		
13	Read and understand the details of a letter from a Spanish-speaking friend who is bringing you up to date on the activities of his/her family.	0	1	2	3	4	5	6	7		
14	Listen to and understand the main topic of a conversation between a tourist and a native Spanish speaker in which information is requested.	0	1	2	3	4	5	6	7		
15	Listen to and understand the main topic of a short conversation between an adult and a teenager speaking in Spanish.	0	1	2	3	4	5	6	7		

¹ Adapted from Mills, Nicole (2004) "Self-efficacy of College Intermediate French Students: Relation to Motivation, Achievement and Proficiency".

16	Read and understand the main ideas of a young person's short letter to a friend.	0 1 2 3 4 5 6 7
17	Read and understand the details of a young person's short letter to a friend.	0 1 2 3 4 5 6 7
18	Listen to and understand the main ideas of a tour guide's sightseeing tour in Spanish.	0 1 2 3 4 5 6 7
19	Listen to and comprehend the details of a conversation at a supermarket about grocery shopping in Spanish.	0 1 2 3 4 5 6 7
20	Listen to and understand the main ideas of a conversation of a parent giving advice to a teenage child.	0 1 2 3 4 5 6 7
21	Read and understand the details of a paragraph from a pen pal's letter in Spanish.	0 1 2 3 4 5 6 7
22	Listen to and understand the main ideas of an announcement in Spanish at a train station.	0 1 2 3 4 5 6 7
23	Listen to and understand the main ideas of a conversation between two native speakers about weekend plans.	0 1 2 3 4 5 6 7
24	Read and understand the details of a letter to the editor's response in a travel magazine in Spanish.	0 1 2 3 4 5 6 7
25	Listen to and understand the main ideas of a short interview with a Spanish-speaking journalist.	0 1 2 3 4 5 6 7
26	Listen to and understand the details of a short interview about the life of a Spanish-speaking journalist.	0 1 2 3 4 5 6 7
27	Read and understand the main ideas from a tourist brochure describing various organized activities in a Spanish-speaking country.	0 1 2 3 4 5 6 7
28	Listen to and understand the details of a short conversation in Spanish between two people talking about personal topics.	0 1 2 3 4 5 6 7
29	Read and understand the main ideas of an ad in Spanish for a house or apartment.	0 1 2 3 4 5 6 7
30	Listen to and understand the details in a conversation between two Spanish speakers talking about the weather.	0 1 2 3 4 5 6 7
31	Listen to and understand the main ideas of a short televised news report in Spanish.	0 1 2 3 4 5 6 7
32	Listen to and understand the main ideas of a weather report in Spanish.	0 1 2 3 4 5 6 7
33	Read and understand the details of a short story in Spanish.	0 1 2 3 4 5 6 7
34	Listen to and understand the details of a conversation of a parent giving advice to a teenage child.	0 1 2 3 4 5 6 7
35	Listen to and understand the main ideas of a televised public service announcement in Spanish.	0 1 2 3 4 5 6 7

Directions:

Using the scale from 0 (not confident at all) to 7 (completely confident), please answer the questions below.

0 1 2 3 4 5 6 7

Not confident

**completely
confident**

1	How confident are you that you will pass this Spanish class at the end of the semester?	0 1 2 3 4 5 6 7
2	How confident are you that you will pass Spanish at the end of the semester <i>with a grade better than a D?</i>	0 1 2 3 4 5 6 7
3	How confident are you that you will get <i>a grade better than a C?</i>	0 1 2 3 4 5 6 7
4	How confident are you that you will get <i>a grade better than a B?</i>	0 1 2 3 4 5 6 7
5	How confident are you that you will get <i>an A?</i>	0 1 2 3 4 5 6 7

APPENDIX B

SELF-ASSESSMENT QUESTIONNAIRE

Student Name: _____

1. In the past week, what three topics have you studied / practiced/worked on? (Fill in the spaces with topics and areas of study that are relevant to your case, for example, “the customs in Venezuela”, “listened to the workbook exercises”, “read about Venezuela”, etc.)

Note: The ‘new words’ you have used/learned will be covered under Items 4 and 5, so please don’t include vocabulary in this section.

a.	
b.	
c.	

2. In your estimation, how well can you deal with each topic you listed in Section 1?

	Not at all	To some extent	Very well	Thoroughly
a.				
b.				
c.				

3. To what extent do you find the topics you listed in Section 1 important in relation to your own goals for the course?

	Not at all important	Not very important	Very important	Extremely important
a.				
b.				
c.				

4. What three new vocabulary topics have you learned? (For example, vocabulary of the house, vocabulary of travel, etc). Write down your native language equivalents if it’s easier for you.

a.	
b.	
c.	

5. In your estimation, how well do you know the vocabulary/areas you mentioned in Section 4?

	Not at all	To some extent	Very well	Thoroughly
a.				
b.				
c.				

6. To what extent do you find the vocabulary/areas in Section 4 important in relation to your own course goals?

	Not at all important	Not very important	Very important	Extremely important
a.				
b.				
c.				

7. Thinking about the past week in Spanish class, I feel that I have learned:

Nothing at all	Very little	Enough	A lot

8. Looking back, I realize that I should change my study habits/learning approach/priorities in the following way:

9. Overall, I think I still need to work on:

10. I would want to see the instructor provide more lessons on the following points/skills/areas:

11. Thinking about this Spanish class, I feel that I have learned:

Nothing at all	Very little	Enough	A lot

Suggested follow up: discuss your assessment and your points of view with a fellow student or in a small group/with your teacher/instructor. Try to find out if others think you tend to overestimate or underestimate your ability and required skills and then decide whether you should reconsider and readjust your personal 'yardstick'. Be sure to compare your subjective impressions with other criteria such as test scores, your teacher's evaluation and your fellow students' opinions.

* Adapted from Blanche, P & Merino, B (1989). Self-assessment of foreign language skills: implications for teachers and researchers. *Language Learning*, (39) 313-340.

APPENDIX C

THE LANGUAGE LEARNING EXPERIENCE QUESTIONNAIRE¹

Spanish Instructor: _____

1. Last 4 Digits Of Social Security #: _____
2. Age: _____
3. What is the highest level of completed, formal education you have attained? (Write an X in the box)

College Freshman year	<input type="checkbox"/>	Completed BA or BS program	<input type="checkbox"/>
College Sophomore year	<input type="checkbox"/>	Completed MA or MS program	<input type="checkbox"/>
College Junior year	<input type="checkbox"/>	Completed Doctorate program	<input type="checkbox"/>
College Senior year	<input type="checkbox"/>		<input type="checkbox"/>

4. Have you been exposed to any foreign language for a significant period of time before coming to the university? (For instance, did you live in a foreign country for more than two months running when you were a child/in high school? Does anybody in your family speak a foreign language?) (Write an X in the box)

<input type="checkbox"/>	yes	<input type="checkbox"/>	no
--------------------------	-----	--------------------------	----

5. If you answered YES in question 4, write down the language below:

6. Had you ever studied Spanish before coming to the university?

<input type="checkbox"/>	yes	<input type="checkbox"/>	no
--------------------------	-----	--------------------------	----

If your answer to the question above is 'no' proceed to question 8.

6. If so, how many academic term/years?

7. When? List all the calendar years involved here:

8. You are a (Write an X in the box):

<input type="checkbox"/>	Male	<input type="checkbox"/>	Female
--------------------------	------	--------------------------	--------

9. To which racial/ethnic cultural group(s) do you belong?

APPENDIX D

UNIVERSITY OF PITTSBURGH DEPARTMENT OF HISPANIC LANGUAGES AND LITERATURES INTRODUCTORY SCRIPT

Title: The Effect of Self-Assessment on the Self-Efficacy of Students Studying Spanish as a Foreign Language

Principal Investigator: Javier Coronado-Aliegro, Ph.D. candidate

Script: Self-efficacy, or students' beliefs about their ability to perform a task successfully, is an important part of learning a foreign language. The purpose of this research study is to determine whether self-efficacy changes during one semester of instruction in a Spanish as a foreign language class. For that reason, we will be surveying undergraduate Spanish students from a number of different classrooms at the University of Pittsburgh and University of Akron. Students will be asked to fill out a survey at the beginning and end of the semester, which will take approximately 10 minutes to complete.

If you are willing to participate, the survey will ask about your background (e.g., age, race, years of education, previous experience with foreign languages), as well as your beliefs about your Spanish ability.

There are no foreseeable risks associated with this project, nor are there any direct benefits to you. The data collected will remain anonymous and confidential, and your responses will be kept under lock and key. Your answers will be coded with a number, so your specific responses will not be linked to you.

Your participation is voluntary, and you may withdraw from this project at any time without penalty.

This study is being conducted by Javier Coronado-Aliegro, who can be reached at 330-972-5808 if you have any future questions.

University of Akron
Department of Modern Languages
Introductory Script

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