The Effect of Continuous Self-Assessment for Spanish Learners' Self-Efficacy: Implications on the Foreign Language Classroom

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Abstract

Self-efficacy is important to students studying a foreign language, however little empirical research to date has investigated how classroom self-assessment practices enhance students' self-efficacy. The purpose of this study was to evaluate whether Spanish students engaging in continuous self-assessment exercises resulted in more self-efficacy compared to students not engaging in classroom self-assessment (*N*=140). A pre-test, post-test control group research design was used to test this comparison. Results of a 2X2 ANOVA and follow-up analyses revealed that Spanish students who engaged in weekly classroom self-assessment exercises showed statistically significantly higher self-efficacy at the end of one semester (i.e., from pre-test to post-test), whereas students who did not engage in these exercises did not show such an increase. Implications for the foreign language classroom are discussed.

1. Introduction

How and why students engage in learning is of particular concern for foreign language educators. This topic is a complex and challenging one to research because there are many variables related to students' learning processes. Classroom motivation and persistence is a key factor in the success of second language learning (Dörnyei, 2001; Ehrman, 1996; Moskovsky et al., 2013). Part of a student's motivational process involves belief structures that influence the ways in which a student approaches learning tasks. Known as self-efficacy, learner beliefs about their own competence and future potential have a direct impact on the learning process by enhancing a learner's progress (Bandura, 1986). The beliefs that learners hold about their ability to learn can therefore be self-regulating in that they can determine the ways in which students approach learning tasks

in classroom settings. Research has suggested that the source of most human motivation is cognitively constructed, meaning that it is generated internally (Bandura, 1994). Sources of self-efficacy such as self-talk, beliefs about expertise and ability, as well as the internalization of praise and constructive feedback all affect how a learner approaches new learning tasks.

When individuals have a strong sense of self-efficacy, they approach difficult tasks as challenges that can be mastered, rather than as threats that should be avoided. They are more interested in their activities (Bandura, 1989; Bouffard-Bouchard, 1990). Furthermore, they tend to sustain their efforts through failures, attributing those failures to insufficient effort or deficient knowledge that they believe can be acquired. Self-efficacy allows individuals to approach situations with more assurance that they can exercise control over the outcome (Artistico et al., 2003; Betz, 2004).

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1.1. Self-Efficacy in the Foreign Language Classroom

Researchers such as Lent, Brown and Larkin (1986) have documented the vital role self-efficacy plays in learning and achieving. Pajares and Shunk (2002) suggest that self-efficacy expectations are strongly related to indices of academic performance. However, although research is available on self-efficacy in the field of first language reading and writing, very little research has been carried out in the field of Foreign Language (FL) education (Baleghizadeh and Masoun, 2013; Cheng, 2002). The research that does exist shows that student academic behaviors and performance seem to be directly influenced by beliefs about their academic potential (Pajares and Schunk, 2002). However, even though authors (e.g., Dörnyei, 1994) assert that theories of self-efficacy should be more thoroughly reflected in second language learning theories, few empirical studies of self-efficacy exist related to FL.

Most studies in this area (Clément et al., 1994; MacIntyre et al., 1998) focus more narrowly on feelings of self-confidence, a construct somewhat different from self-efficacy. In the case of self-confidence, researchers typically focused on students' global feelings about their capabilities in broad areas of learning (Dörnyei, 1994). Self-efficacy, however, refers to the students' perceived future competence in a specific task from a cognitive standpoint. 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"). Because beliefs may be easier to reflect upon and influence than feelings (Bandura, 1997), researching correlates of self-efficacy in the FL classroom may have important implications for FL students. A consistent finding is that self-efficacy for learning a foreign language appears to be positively associated with achievement as defined by course grades in the target language (Hsieh, 2008; Mills et al., 2007). However, Mills (2004) notes that in the few studies focused on self-efficacy and FL, methodological weaknesses have sometimes undermined the findings. The main weakness found was the use of ineffective (and often invalid) measures of self-efficacy in research designs. When studying self-efficacy, researchers should measure learners' beliefs about mastering specific tasks (Multon et al., 1991; Pajares, 1996; Schunk, 1991), rather than less broad belief systems or related variables such as a sense of confidence. The importance of understanding FL learners' beliefs in their capabilities to master a FL lies in the fact that self-efficacy affects their aspirations, their level of interest in the subject, and

ultimately their academic accomplishments. In this regard, Bandura (1994) emphasizes the finding that the classroom structure affects the development of self-efficacy because of the importance placed on social comparisons and/or self-comparisons. How performance-related information is given to students, and how students incorporate this information, is equally important. For example, learners may find themselves in a situation where they are continuously compared to their peers in term of grades and FL reading or writing performance, without specific feedback about strengths and weaknesses regarding task-related behaviors. Thus, little chance is available to incorporate self-reflection on the process. Ultimately, this circumstance may lead to a reduced internal locus of control and perhaps lower self-efficacy.

According to Bandura (1997) individuals are viewed as proactive and self-reflective beings, not simply reactive individuals. Participation in discrete, specific tasks that provide an opportunity to evaluate performance related to completing them has been shown to promote self-efficacy (Multon et al., 1991) and feelings of self-confidence (Pajares, 1996). Creating classroom-related tasks that help learners reflect on their level of proficiency, and that encourage social situations wherein students interact with and watch effective performances of peers, could lead them to improve situation-and-domain specific competences (Chuang, 2004). Ideally, in the FL classroom, students could gain from different sources of self-efficacy, such as first-hand experiences successfully completing tasks, learning from their peers performing at the same or a higher educational level, and receiving acknowledgement for their achievements from the instructor without adding undue anxiety to the experience. That is, self-efficacy-friendly tasks could provide students with a cognitively rich learning environment that is high in both motivation and real-world learning (Pajares and Graham, 1999). One potentially valuable avenue for enhancing FL students' self-efficacy, therefore, may be the incorporation of self-assessment exercises into the classroom curriculum.

1.2. Self-Efficacy and Self-Assessment in the Foreign Language Classroom

Although prior empirical research is relatively lacking, the theoretical literature on self-efficacy is linked to the construct of self-assessment (Whilhite, 1990). Self-assessment can be described as self-generated information that learners develop about themselves and their own behaviors (e.g., about their own abilities, the progress they think they are making toward their goals, and what they think they can or cannot yet do with what they have learned) (Blanche and Merino, 1989). In the FL classroom, self-assessment relates to self-reflections about various performance-based behaviors while learning a

second language. When defining self-assessment, Harris and McCann (1994) describe the construct 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, and what they think about the course in general" (p. 36).

Oscarson (1989) explains that the field of self-assessment in language proficiency is concerned with knowing how, under what circumstances, and with what effects learners of a FL understand their own abilities in the language. Self-assessment, according to Oscarson, comes from the realization that effective learning is best achieved if the student is actively engaged in all phases of their learning process. Self-assessment is therefore useful instructionally because it provides information about possible problem areas for the students, and it is much more efficient if students directly intuit the problems they believe they have (Harris and McCann, 1994). Moreover, Dodd (1995) suggests that continuous self-assessment is the best way to promote understanding and learning, supporting the belief that students who feel ownership over their own learning process more often believe they can reach their goals. Ultimately, this may help FL students become more engaged in the learning process perhaps further enhancing self-efficacy. In essence, theoretically, the greater one's self-assessment ability, the more a learner will develop beliefs of mastery over learning tasks. This sense of mastery directly contributes to self-efficacy (Bandura, 1997). However, the link between self-assessment and self-efficacy in the FL classroom has not been well-tested empirically.

One of the only studies found to date on this topic studied continuous self-assessment practices on self-efficacy among 57 Iranian English as a foreign language students (Baleghizadeh and Masoun, 2013). Findings showed that students' self-efficacy improved significantly when self-assessment was used continuously, suggesting that applying self-assessment on a formative basis in an EFL setting leads to increased self-efficacy. As Baleghizadeh and Masoun (2013) explained, "Further research, however, needs to be conducted to shed further light on the beneficial effects of self-assessment Thus, it will be worthwhile to investigate self-assessment data collected from learners in different [i.e., non-Iranian] cultures." (p. 54). The purpose of this study was to investigate the effect of continuous self-assessment exercises on the self-efficacy of students studying Spanish as a FL. The following research question was posed for this study: Does the incorporation of a continuous self-assessment exercise influence students' self-efficacy in a Spanish as a Foreign Language classroom?

2. Method

2.1. Subjects

Participants in this study included 104 sophomore and junior college students at a Northeastern or Midwestern public university. Participants were sampled from undergraduate Spanish classrooms. The Northeastern university was located in a metropolitan county of approximately 1,261,000 inhabitants. The Midwestern university was located in a semi-metropolitan area. The campus is in a semi-urban county of approximately 547,000 inhabitants.

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, two (1.9%) were Asian-American, one (1%) was Hispanic American, and three (2.9%) self-identified their race as "other." 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, four (3.8%) were in their senior year of college, seven (6.7%) had completed a Bachelor's degree, one (1%) had completed a Master's degree, and two (1.9%) were in a Doctoral degree program.

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, eight (21.6%) had learned French previously, four (10.8%) had learned German previously, and ten (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. Table 1 shows demographic characteristics of the entire sample, as well as the treatment and control groups separately.

Table 1. Descriptive Statistics for Sample Population

Demographic Variable	Treatment Group (*n* = 62)	Control Group (*n* = 42)	Full Sample (*N* = 104)
Age (Mean/SD)	b b24.2/6.4	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%
Previous Spanish 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%

2.2. Procedures

First, Spanish coordinators at two universities were contacted and asked for permission to collect data in their summer semester Spanish classrooms. Next, after initial approval was granted, all Spanish courses were identified and randomly selected as belonging to either the treatment or control groups. Fifty percent of classes at each university were classified as belonging to the treatment group, and 50% of classes at each university were classified as belonging to the control group. Then, individual instructors were contacted for permission to visit their classrooms and explain the research objectives to students (and ask for their voluntary participation). All students from all Spanish courses were asked to join the research study. Upon presentation at each class, the primary researcher read a standardized 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. Only students who volunteered to participate were given questionnaires to complete. At pre-test (the second week of class) two questionnaires were completed by participants in both the treatment and control groups, a self-efficacy questionnaire and a demographic questionnaire. Students in the treatment group then completed a weekly self-assessment questionnaire, passed out and collected during class time by individual instructors. At post-test (i.e., at the end of the course) both

groups once again completed the self-efficacy questionnaire. The researcher and/or the class instructor was present each time instruments were completed in case questions arose. All questionnaires were completed anonymously and no identifying information was collected. The research design was pre-approved by Institutional Review Boards of both participating universities.

2.3. Instruments

2.3.1. Demographic Questionnaire

The demographic questionnaire was a simple list of factual participant demographic characteristics adapted from Blanche (1990). The questionnaire included questions related to highest level of formal education completed, whether or not students had been exposed to any foreign language for a significant period of time in the past, whether or not students had studied Spanish before enrolling in the university, and the number of years they had studied Spanish before coming to the university and the dates during which these experiences took place. The questionnaire also solicited information about participant's age, sex, and self-reported ethnicity.

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

The Spanish as a Foreign Language Self-Efficacy Questionnaire (SFL-SEQ) was adapted from Mills' (2004) instrument to fit language curricula covered in a Spanish as a Foreign Language classroom, as Mills' instrument was tailored to French-speaking students and instruction.

Statements focused on FL understanding (i.e., listening and understanding a TV commercial in Spanish or reading an editorial in a Spanish magazine) and were scaled to the level of students in this research study using Novice-Low ACTFL (2001) proficiency guidelines. The SFL-SEQ focused on listening and reading interpretive skills that are part of the communication goal of the National Standards for Foreign Language Learning (2007).

The SFL-SEQ had 40 items and was scored according to an 8-point Likert-type scale. In the first 35 questions, students were asked how sure they were about performing a specific Spanish-related task. These items were scored from 0 ('no chance') to 7 ('completely certain'). The last five questions focused on students' self-efficacy about their overall performance in a Spanish classroom, thus providing insight into students' self-efficacy in achieving certain grades at the end of the semester. These five questions were scored using a Likert-type scale and ranged from 0 ('not confident') to 7 ('completely confident'). One overall SFL-SEQ score was obtained, and total scores ranged from 0 to 280. Higher scores equated to higher self-efficacy regarding Spanish as a Foreign Language.

The original instrument's face validity was established by a review of the questionnaire by two university coordinators, two trained ACTFL oral proficiency raters, an ACTFL proficiency guideline authority, and an expert in academic self-efficacy research. Cronbach's alpha coefficients on the original instrument ranged from .88 to .97 (Mills, 2004). A separate Cronbach's alpha coefficient was obtained for the Spanish adaptation of the instrument in order to test the instrument's internal consistency reliability. Cronbach's alpha for the SFL-SEQ was .98, indicating a very high level of internal consistency for this instrument.

2.3.3. Self-Assessment Questionnaire (SAQ)

The self-assessment questionnaire (SAQ) was adapted from Blanche and Merino (1989). The SAQ was completed by students only in the treatment group on a weekly basis in order to test whether self-assessment practice impacted students' self-efficacy. The SAQ asked students to identify (a) classroom topics they consider important, (b) the main difficulties they had while learning the topics, and (c) strategies they believe may overcome these difficulties. This instrument allowed students to focus on their assets as well as their shortcomings in order to reflect upon various language learning tasks within the course (Blanche and Merino, 1989). The SAQ included ten questions related to the following topics: (1) written details about topics students found important in the last lesson, (2) numerical ratings (4-point scale ranging from "not at all" to "thoroughly/extremely") about how important students believed each topic was, and

how well they believed they could learn the topic, (3) a written list of vocabulary words students learned since the last SAQ was completed, (4) numerical ratings (using a similar 4-point scale) about how important students believed each word was in their learning, and how well they believed they can use the word in practice, (5) numerical ratings (5-point scale ranging from learning "nothing at all" to "a lot") related to students' feelings about their past week's learning productivity, (6) written descriptions of changes students would make to their study habits. In order to test the internal consistency reliability of the adapted SAQ in this study, a Cronbach's alpha coefficient was obtained. Results showed an alpha coefficient of .91, indicating a very high degree of internal consistency for the instrument.

3. Results

The primary goal of this study was to determine whether the addition of a self-assessment component in the Spanish classroom (i.e., the SAQ) 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 (Creswell, 2003). Therefore, a pre-test-post-test control group research design was employed. A treatment group, which included Spanish students who completed weekly self-assessment instruments, was compared with a control group (which did not incorporate self-assessment training in the curriculum). The dependent variable was ratings of self-efficacy (using the SFL-SEQ). The independent variable was a dichotomous variable (Borg and Gall, 1996) that included group membership (i.e., students in the treatment group versus students in the control group. The null hypothesis tested in this study was: There is no statistically significant difference between pre-test and post-test self-efficacy ratings among Spanish students who do and do not engage in weekly classroom self-assessment exercises).

First, descriptive statistics were obtained for all demographic variables on the questionnaires. Descriptive statistics included the means, standard deviations, and ranges of the dependent variable and sample characteristics. Next, in order to test whether there were group differences in pre-test, post-test self-efficacy scores a 2X2 ANOVA was conducted. In the ANOVA, the independent variable (control group versus treatment group) served as the between-subjects factor and time (pre-test self-efficacy scores versus post-test self-efficacy scores) served as the within-subjects factor. This statistical test will help determine whether the treatment group and/or the control group significantly improve in self-efficacy over time (Mertler and Vannatta, 2002).

For the entire sample ($N = 104$) the mean SLF-SEQ pre-test

score was 3.4 (*SD* = 16). The average pre-test score on the SFL-SEQ for the treatment group (*n* = 62) was 3.0 (*SD* = 1.6) compared to an average score of 4.1 (*SD* = 1.4) for the control group (*n* = 42). For the entire sample, the mean SFL-SEQ post-test score was 4.5 (*SD* = 1.3). The average post-test 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. Therefore, both groups showed increases in self-efficacy over the study period. Prior to conducting the main 2X2 ANOVA, it was important to assess whether the assumptions of this statistical test were held for the current sample population. 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 groups. A non-significant result (Box's M= 6.28; F [3, 248313.9], p = .11] supported the equality of covariance matrices for this sample. Results of the ANOVA revealed a significant group by time interaction, indicating that the degree of change from pre-test to post-test differed significantly between groups, $F(1, 87) = 12.40$, $p < .01$. Table 2 shows results of the 2X2 ANOVA.

Table 2. Statistical Results of Main Analysis of Variance

	F	df1	df2	p
	4.71	1	87	.033*
Time	25.23	1	87	<.001**
Group X Time	12.40	1	87	<.01**

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

To follow up on the significant ANOVA results, dependent t-tests were conducted to compare the pre-test and post-test scores of both groups separately. Results revealed that self-efficacy scores *did* increase significantly from pre-test (*M* =3.04, *SD* = 1.50) to post-test (*M* = 4.60, *SD* = 1.15) for treatment group participants (t = -7.18 [*d f*= 53], $p < .001$), but self-efficacy scores did *not* significantly increase from pre-test (*M* = 4.19, *SD* = 1.25) to post-test (*M* = 4.47, *SD* = 1.57) for control group participants (t = -.90 [*df* = 34], p = .38). Figure 1 provides a graphic depiction of the mean differences between pre-test and post-test scores for the treatment versus control groups. Figure 1 shows average self-efficacy scores for the treatment group increased substantially from pre-test to post-test. Although treatment group participants' self-efficacy scores were lower at the beginning of the semester than control group participants' self-efficacy scores, by the end of the semester the treatment group had even higher self-efficacy scores than the control group. Insert Figure 1 Here.

In conclusion, the null hypothesis was rejected. Results supported an alternative hypothesis. That is, students studying Spanish as a Foreign Language who engage in weekly classroom self-assessment exercises show significantly higher self-efficacy at the end of one semester (i.e., post-test), whereas students who do not engage in self-assessment exercises do not show a statistically significant increase in self-efficacy over the course of the semester.

4. Discussion

Results of this empirical study demonstrated that students who received weekly self-assessment exercises in the FL classroom demonstrated statistically significant increases in self-efficacy from the beginning to the end of the semester. As shown graphically in Figure 1, the average quantitative increase in self-efficacy in the treatment group was dramatic. It should be noted that the control group (which did not engage in self-assessment exercises as part of the classroom curriculum) also demonstrated an increase in self-efficacy. This trend is intuitively logical in that as students learned more about the FL, beliefs about their competence and future success were strengthened. However, in this group of students, the development of self-efficacy from beginning to end of the semester was not statistically significant. Thus, it can be concluded that the self-assessment experience contributed markedly to students' self-efficacy beliefs.

These results are fully consistent with those reported by Baleghizadeh and Masoun (2013). The practical implications of these findings include the fact that the more students self-assess their strengths and weaknesses, the more likely they are to develop increased self-efficacy related to their learning process. This may ultimately motivate students further and lead to performance success, perhaps reinforcing 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 likely become more self-guided in the learning process. It seems logical, given the results of this study, that for FL students to have the best chance of increasing their self-efficacy, they must not rely solely on instructor's verbal persuasion or feedback. Ideally, students should gain learner independence (i.e., self-guided mastery) with regard to developing strategies that reach their own learning goals.

Bandura (1997) asserted that "people act on their efficacy beliefs and assess the adequacy of their self-appraisal from the performances they manage to achieve" (p. 81). Research findings from this study support this claim, suggesting that when students are provided the opportunity to self-appraise following instruction they will continue evaluating their strengths and weaknesses after attempting additional FL tasks in the future. Results of this study also indirectly support 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 in the learning process. Thus, insight is gained about how to succeed in the course and more broadly when using the FL. The long-term result may be that students become more 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 FL learning tasks, but also when learning a FL beyond the classroom context.

4.1. Pedagogical Implications for the Foreign Language Classroom

In the FL classroom, self-efficacy can be a very valuable tool because it reinforces students' motivational processes (Bandura, 1994). Therefore, it is important that instructors promote students' truthful self-assessment throughout the learning of a FL. With this information instructors could measure and ultimately enhance learners' self-efficacy. By modifying classroom practices to include continuous self-assessment, instructors may ultimately help learners gain motivation and self-confidence. In this regard, self-assessment exercises should relate to the performance of specific reading, writing, speaking or listening tasks. Coronado-Aliegro (2007) described the following theoretical pathway between self-assessment and self-efficacy in the FL classroom:

1. As students identify their strengths and weaknesses in the FL classroom, they will feel more confident about ultimately mastering the tasks that will result in better classroom performance.

2. As confidence increases, students will put increased effort and persistence toward achieving their learning goals.

3. As effort and persistence increases, students will be rewarded (e.g., learning the material, receiving a high grade, being commended by others).

4. As rewards accumulate, students will develop an internal locus of control, which may translate into independent learning-related behaviors.

5. The more frequently and easily learners incorporate self-appraisal into the learning process, the more authentic mastery experiences will become available to them.

6. As mastery experiences increase, self-efficacy will be heightened and generalized to related learning experiences and environments.

It has been shown that a key component in the successful use of self-assessment is the continuous nature of these exercises throughout the semester. That is, self-assessment has been found to work better when it is used in a continuous way

(Oscarson, 1989). Continuous self-assessment provides learners with more opportunities to develop self-guided appraisal strategies. Given that self-assessment skills require learning in and of themselves, the more often and ongoing self-assessment exercises are used, the more likely learners will become familiar with and skilled in the self-assessment process. In addition, the more comfortable students are with this process, the more likely self-assessment related behaviors will translate into self-generated (versus instructor initiated) experiences. Coronado-Aliegro (2007) provides a sample self-assessment questionnaire that can be used in the FL classroom to help increase students' self-efficacy. In this sample questionnaire "students are asked to identify (a) specific classroom topics (whether grammatical, functional or vocabulary-related) they consider important, (b) the main difficulties they had while learning the topics, as well as (c) strategies they believe may be used to overcome these difficulties" (p. 135). This type of exercise helps FL students focus on their assets, identify their shortcomings, and reflect on various aspects of the course (Blanche and Merino, 1989; Coronado-Aliegro, 2007).

4.2. Limitations and Implications for Future Research

Although results of this study are promising in regard to the use of self-assessment in the FL classroom, the research design employed was not without limitations. First, caution should be used when generalizing these findings to non-related demographic or student populations. For example, an attempt was made to enhance generalizability (i.e., external validity) by including a sample population from several different classrooms at two different universities. However, both universities were in the same general region of the country. Perhaps students from the Western or Southern United States would respond differently to using self-assessment exercises in the classroom. We therefore encourage future researchers to replicate this study in other geographic regions. In addition, the sample population included in this study was comprised largely of beginning-level FL students. Perhaps the development of self-efficacy would follow a different pattern in more advanced (e.g., graduate-level) FL students or persons who have already learned to speak a FL somewhat fluently. It is likely that increases in self-efficacy would be most dramatic in persons who are beginning to learn a FL because their progress may be more marked and conscious. We suggest that this study be attempted with persons having various levels of FL ability.

We are also aware that this study focused on self-assessment and self-efficacy among Spanish students. Because this research design was the first to date that tested this relationship, it is unclear whether the same results would be

found in students studying another FL. It would seem that additional research in this area is warranted with students studying French, German, Italian, etc. It would also be interesting to determine if the same outcomes were found among students studying a FL with a unique and non-Western alphabet (e.g., Chinese, Thai, etc.). Finally, although this study attempted to investigate a cause-effect relationship between self-assessment and self-efficacy using an experimental research design, other factors leading to increased self-efficacy among participants were surely present. For example, because the control group (which did not participate in self-assessment exercises) demonstrated a slight increase in self-efficacy over the course of the semester, other instruction-related variables undoubtedly played a role in this circumstance. Perhaps factors such as positive vicarious experiences from peers (i.e., modeling) (Bandura, 1997) or unaccounted for differences in instructor feedback impacted students' self-efficacy development. Clearly additional research regarding the relationship between self-assessment and self-efficacy in FL education is warranted. We therefore encourage future researchers to replication and expand upon the research design utilized here.
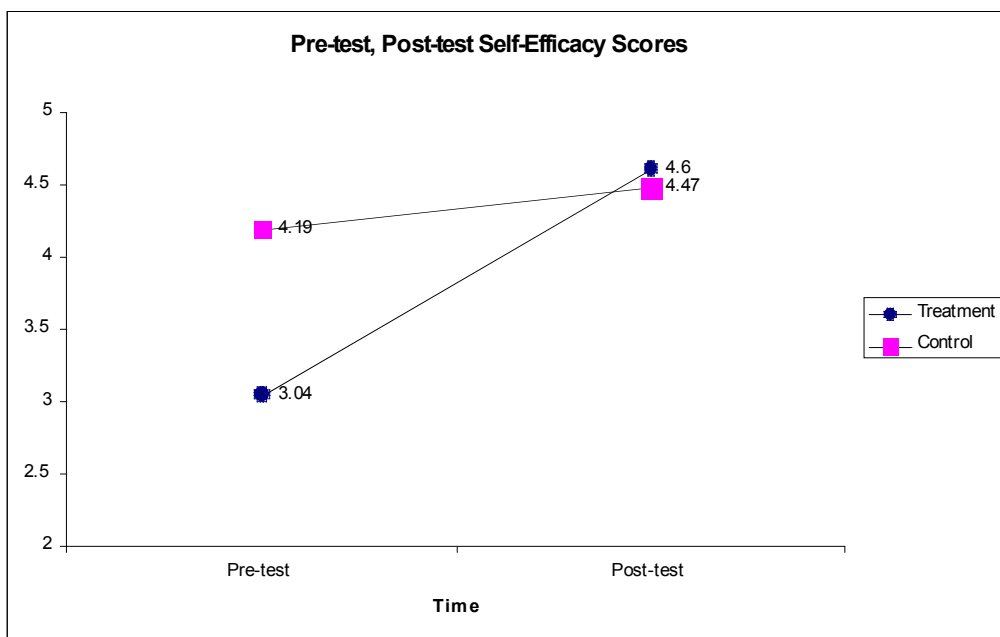

Figure 1. Pre-Test to Post-Test Self-Efficacy Among Treatment and Control Group Participants

5. Summary and Conclusions

Links can be drawn from the theoretical literature on self-efficacy to the construct to self-assessment (Baleghizadeh and Masoun, 2013; Whilhite, 1990). Self-assessment has been defined as the self-generation of information about a learner's performance provided by the learner himself or herself. Thus, self-assessment is a form of intra-communication (rather than external communication, such as from an instructor). Self-assessment practices have been widely used in many fields, including FL education. However, to date no research has focused on how self-assessment exercises incorporated into FL curricula can help to enhance students' self-efficacy. In this study, instructors in the treatment group used self-assessment exercises to provide students with mechanisms for self-reflection. It was found that these students showed significantly greater increases in self-efficacy than students in a control group (within which instructors did not formally incorporate any form of standardized self-assessment). These empirical results suggest that self-assessment practices may have a beneficial and valuable impact on students studying a FL.

Some outcomes of more frequent and in-depth self-assessment are that it (1) increases learners' awareness of their own strengths and weaknesses in regard to educational goals (Harris and McCann, 1994), (2) leads learners toward a more comfortable approach to learning (i.e., one that fits their own learning style) (Oscarson, 1989), and (3) helps learners feel more ownership over learning tasks, thus motivating them to become more engaged in specific learning exercises (Dodd, 1995). Ultimately, these factors seem to translate into enhanced self-efficacy on the part of FL learners. However, based on this study's research design, as well as prior literature, it is recommended that self-assessment exercises be continuous. In addition, the more specific and focused a self-assessment instrument is, the more helpful and objective it will be when the learners self-reflect on their task-oriented behaviors. The kinds of questions asked in self-assessment questionnaires are important (i.e., 'how' questions are just as

important as 'what' questions). When considering the FL classroom, it should be noted that these questions should be written in the first language of the learners. This practice may make it easier for students to reflect on the learning taking place since it minimizes undue anxiety or misunderstandings on the part of learners, and it facilitates students' integration of self-assessment in their broader learning processes (i.e., outside the FL classroom). In summary, results of this study support assertions that (a) self-assessment exercises are associated with increased self-efficacy, (b) self-assessment exercises should be incorporated into course curricula because they may lead to learner independence and subsequent internal locus of control development, and (c) self-assessment should be continuous throughout a particular semester (Baleghizadeh and Masoun, 2013).

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