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The Power of Belief: Spanish Teachers' Sense of Efficacy and Student Performance on the National Spanish Examinations



Pete Swanson
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Abstract: In this study, the researcher investigated Spanish teachers' sense of efficacy as it relates to their students' achievement on the AATSP National Spanish Examinations. Results suggest that there is a link between Spanish teacher efficacy and students' scores on the exams. That is, the higher one's belief about his or her abilities to teach Spanish, the higher the students' scores on the exams. Teacher efficacy also was found to be related to participants' future vocational plans: whether they remain teaching or leave the profession. This research has implications for teacher preparation and professional development highlighting the importance of building a strong sense of efficacy in teaching Spanish.

Keywords: motivation/motivación, National Spanish Examinations, social cognitive theory/teoría socio-cognitiva, teacher attrition/atrición de maestros, teacher efficacy/eficacia de maestros

1. Introduction

For more than fifty years, researchers have been investigating teachers' beliefs about their capacity to impact student learning and motivation, and a vast literature base has been created. Beginning in the 1960s, research identified a distinction between teachers' beliefs of external and internal control (Rotter 1966). For years, it has been suggested that teacher self-efficacy will increase if teachers think that student achievement and behavior can be influenced by education (Guskey and Passaro 1994; Rose and Medway 1981). Research has shown that an increased sense of teacher self-efficacy is associated with a variety of teacher outcomes such as teachers' willingness to implement innovations (Guskey 1988; Rangel 1997; Smylie 1988), classroom management strategies (Ashton and Webb 1986), persistence when things are not going well and resilience in the face of setbacks (Tschannen-Moran and Woolfolk Hoy 2001), and the capacity to be less critical of students when they err (Ashton and Webb 1986). Additionally, teachers with a greater sense of efficacy demonstrate greater commitment to and enthusiasm for teaching (Coladarci 1992; Hall, Burley, Villeme, and Brockmeier 1992).

While the majority of teacher efficacy research tended to focus on efficacy in a general sense, researchers have begun to study teacher efficacy in context-specific domains, such as mathematics and science. This scholarly inquiry has already produced a good deal of analysis, which may serve as a foundation for similar studies within the field of foreign languages. Research has shown that there are two separate and yet uncorrelated factors associated with teaching science: personal science teaching efficacy and science teaching outcome expectancy (Enochs and Riggs 1990). Among these studies, researchers reported that teachers with a higher sense of personal science teaching efficacy spent more time teaching science and that teacher efficacy was associated with science teaching performance (Riggs and Jesunathadas 1993). Furthermore, the teachers' sense of efficacy teaching science was related to teacher enjoyment of science (Watters and Ginns 1995). In terms of student outcomes, Angle and Moseley (2010) reported that students' test scores in

biology were related to the expectations that a teacher held for his/her students to learn biology regardless of student motivation, home environment, or availability of classroom materials.

With regard to teachers' sense of efficacy to teach mathematics, there is a substantial research base (Brand and Wilkins 2007; Butty 2001; Enochs and Riggs 1990; Enochs, Smith, and Huinker 2000; Midgley, Feldlaufer, and Eccles 1989; Philippou and Charalambous 2005; Riggs and Enochs 1990; Swars 2005; Swars, Hart, Smith, and Tolar 2007). Among the many findings, researchers have shown that teachers who report having a high degree of confidence teaching the subject and feel that they are effective teachers tend to be more willing to be creative and use inquiry-based teaching and learning methods (Wilkins 2008). Moreover, students of teachers with a strong sense of efficacy reported feeling that they were performing better in math and that they would continue to do well in math in the future (Midgley, Feldlaufer, and Eccles 1989).

For those teaching languages (e.g., foreign language, world language, English as a new language), the body of research is less expansive. Nevertheless, the findings have shed light on important results for teachers. For example, Chacón (2005) used the Teachers' Sense of Efficacy Scale (TSES) (Tschannen-Moran and Woolfolk Hoy 2001), a well-known instrument to measure teachers' sense of efficacy in teaching English, in order to examine participants' self-reported English proficiency and use of pedagogical strategies to teach English. A positive relationship was reported between teacher self-efficacy and language proficiency: the higher the participants' sense of efficacy, the more likely they were to use communication or grammar-oriented pedagogical strategies. Using the same instrument, Mills and Allen (2008) studied teacher efficacy of second-language native and non-native graduate teaching assistants of French. The researchers found that native speakers of French responded with higher scores on average than non-native speakers, advancing the notion that content knowledge plays a role in language instructors' conception of teacher efficacy, and that steps should be taken to develop teacher efficacy in non-native speakers.

Building from such research, Swanson (2010a) investigated the dimensionality of foreign language teachers' sense of efficacy. He created and validated the Foreign Language Teacher Efficacy Scale using Tschannen-Moran and Woolfolk Hoy's (2001) aforementioned scale. Factor analysis of the scale indicated the existence of two factors: content knowledge and facilitation of instruction. The research also indicated that teachers' sense of efficacy in teaching languages was related to their decision to remain or leave the profession. Regression analysis showed that teacher inability to help students at the early stages of language learning and confidence to provide an alternate explanation or example when students were confused were significant predictors of teacher attrition.

In a subsequent study, Swanson (2012) reconceptualized the instrument and included items to measure teachers' confidence to teach culture. Among the findings, he reported the existence of a third dimension of language teacher efficacy, cultural instructional knowledge. Furthermore, significant differences in teacher efficacy were found among teachers who were and were not members of national foreign language organizations and those who held provisional, clear, and renewable teaching certificates. Those teachers who were not members of national foreign language organizations (e.g., The American Council on the Teaching of Foreign Languages [ACTFL]) and those who were not officially certified to teach by a government teacher credential-granting agency reported lower confidence in teaching culture. Additionally, teacher confidence to teach cultural knowledge was found to be a predictor of teacher attrition.

While non-content specific studies of teacher efficacy are plentiful and have uncovered relationships to students' self-efficacy beliefs, motivation, and achievement (Akbari and Karimi Allvar 2010; Anderson, Greene, and Loewen 1988; Ashton 1985; Ashton and Webb 1986; Eslami and Fatahi 2008; Midgley, Feldlaufer, and Eccles 1989; Woolfolk, Rossoff, and Hoy 1990), studies focused on language teacher efficacy and its impact on student learning remain scarce. Research shows that self-efficacy beliefs are context specific (Bandura 1997; Bong 2006) and due to such a gap in the literature, research on language teachers is clearly warranted because teachers' sense of efficacy is not consistent across various disciplines or across various tasks (Bandura

1997). Research in general indicates that students of efficacious teachers generally outperform those in other classes (Anderson, Greene, and Loewen 1988; Good and Brophy 2003; Midgley, Feldlaufer, and Eccles 1989) because highly efficacious teachers tend to spend more time in areas of content-specific inefficacy in order to improve certain self-perceived areas of weakness in their practice and devote more time to planning and instruction (Good and Brophy 2003). Such professional attention to content appears to produce higher student achievement because these instructors implement effective management strategies that foster student autonomy while keeping students on task (Woolfolk, Rosoff, and Hoy 1990). Likewise, they employ influential instructional strategies that enhance student academic growth, modify students' perception of their own abilities (Gray and Ross 2006), and remain in teaching (Tschannen-Moran and Hoy 2001; Swanson 2010a, 2010b).

In order to address the gap in critical analysis, the purpose of this article is to present findings from an exploratory study that investigated the nature of Spanish teacher efficacy, the relationship between teachers' perceptions of their abilities to teach Spanish and their students' scores on a national Spanish language assessment, and teachers' decisions to leave the profession.

2. Conceptual Framework

2.1 Self-efficacy

Grounded in social cognitive theory (Bandura 1997), self-efficacy is a person's judgment of his or her abilities to organize and to execute courses of action necessary to achieve designated types of performances. Among an array of personal factors, individuals have self-beliefs that enable them to exercise a degree of control over their thoughts, feelings, and actions. Thus, what people feel, think, and believe affects their behavior. Bandura (2006) posits that individuals' beliefs about themselves are decisive elements in the exercise of control and personal agency. Bandura suggests that among the mechanisms of personal agency, none is more central than an individual's beliefs about his or her capabilities to exercise control over events that affect his or her life. According to Bandura (1986), self-efficacy beliefs function as an important set of proximal determinants of human motivation, affect, and action.

For purposes of clarity, it is important to note that self-efficacy is different from other conceptions of self, such as self-concept, self-esteem, and self-worth; it is task specific (Tschannen-Moran, Woolfolk Hoy, and Hoy 1998). Self-efficacy can be understood as a future-oriented belief about the degree of competence a person anticipates exerting in a given situation. Bandura (1997) posits that such beliefs affect one's emotions. He also contends that future-oriented beliefs affect thought patterns that, in turn, facilitate courses of action in which people expend substantial effort in the pursuit of goals, continue in the face of adversity, bounce back from temporary setbacks, and exercise some control over events that affect their lives.

A solid sense of self-efficacy appears to be a fundamental factor in the attainment of further competencies and success. Bandura (1994) suggests that as adolescents begin to experience the demands of adulthood, they must learn to assume responsibility for themselves in almost every facet of life. In doing so, they must learn to master a plethora of new skills as well as the ways of adult society. If they enter adulthood poorly equipped with underdeveloped skills and plagued by self-doubts, they might find many aspects of adult life stressful and depressing, especially where their careers are concerned. Professionally, brisk changes in the workplace require improved problem-solving skills as well as resilient self-efficacy in order to cope effectively with new tasks and job requirements. During the early stages of professional life, a person's perceived self-efficacy can help to ascertain how well he or she may develop the basic cognitive, interpersonal, and self-management skills on which careers are based. Such beliefs concerning one's abilities are influential determinants of the vocational pathways that people select and their degrees of professional success.

Bandura (1997) identifies four sources of self-efficacy and suggests that mastery experiences are the most powerful of the four to increase self-efficacy. Such experiences help build a strong belief of one's abilities whereas failures tend to undermine and to weaken the person's self-efficacy. The perception that someone mastering a task is much more influential in constructing a greater sense of efficacy than the other three sources of efficacy, which are vicarious experiences (modeling), social persuasion, and physiological response. With respect to educators, research on teacher efficacy and teachers' confidence in their ability to promote students' learning (Woolfolk Hoy 2000) has been shown to be positively related to one's time in the profession, enthusiasm for teaching, commitment to teaching, level of satisfaction, and decision to leave or to remain in the profession (Darling-Hammond, Chung, and Frelow 2002; Glickman and Tamashiro 1982; Rots, Aelterman, Vlerick, and Vermeulen 2007; Swanson 2010a, 2010b; Swanson and Huff 2010; Tschannen-Moran and Woolfolk Hoy 2001). Such findings are noteworthy because approximately 50% of novice teachers in North America, regardless of content area, leave the profession in the first few years on the job (Ingersoll and Smith 2003; Lambert 2006; Maciejewski 2007). Years five through ten, second stage teachers in the classroom are equally susceptible to attrition (Donaldson et al. 2008). For language teachers, the attrition rate is higher than the rate of attrition for teachers in other content areas (Georgia Professional Standards Commission 2008; Konanc 1996).

Language teacher attrition, along with other factors, such as retirement, increased enrollments, legislation, and perceptions of teaching, have been linked to a shortage of language teachers (Swanson 2010a). Among the components that constitute people's perceptions of teaching, a teacher's sense of efficacy has been linked to the shortage (Swanson 2010a). Research suggests that teacher efficacy is cyclical in nature: each proficient performance helps create a new mastery experience, which then serves as new information that shapes future efficacy beliefs. A stronger sense of teacher efficacy leads to increased effort and persistence, which leads to better performances later, which, in turn, leads to even stronger efficacy beliefs. Conversely, lower efficacy leads people to expend less effort and to give up more easily, which leads to poor teaching outcomes and, ultimately, a decreased sense of teacher efficacy (Tschannen-Moran, Woolfolk Hoy, and Hoy 1998). Such negative feelings are associated with the shortage of language teachers in North America (Swanson 2012; Swanson and Huff 2010).

To examine the relationship between Spanish teachers' sense of efficacy, student achievement, and teacher attrition, the present study is guided by the following research questions:

1. How do the teachers who choose to administer the National Spanish Examinations (NSEs) to their students rate their level of efficacy in teaching Spanish?
2. What is the relationship between the teachers' sense of efficacy in teaching Spanish and their students' scores on the NSEs?
3. What is the relationship between the teachers' level of efficacy in teaching Spanish and their choice to remain in or leave the profession?

3. Methods

3.1 Procedure

The researcher contacted Emily Spinelli, the Executive Director of the American Association of Teachers of Spanish and Portuguese (AATSP) to discuss the research project. After presenting the research study to the AATSP Executive Council, Spinelli gave permission to conduct the study. Following Institutional Review Board approval for human subjects testing in March 2012, the researcher placed the Second/Foreign Language Teacher Sense of Efficacy Scale, the TSES, and the Self-directed Search along with a participant demographic sheet online and tested each instrument to ensure the data collection system functioned properly. Next, the researcher worked with the Director of the National Spanish Examinations (NSE), Kevin Cessna-Buscemi,

in order to send emails to the selected sample of teachers who administer the NSEs to their students. Data collection ended in May 2012.

3.2 National Spanish Examinations

The NSE, a subsidiary of the AATSP, are online standardized assessments (grades 6–12, seven levels) that are the most widely used tests of Spanish in the United States. The mission of the NSE is “to recognize student achievement and to promote language proficiency in the study of Spanish” (National Spanish Examinations 2012). The exam was first developed in 1957, and since then it has gained in popularity among Spanish teachers and their students. Each year the NSEs are administered voluntarily by more than 3,800 teachers to several hundred thousand students in order to measure student ability to use the Spanish language. The purposes of providing the NSEs are to recognize achievement in the study of Spanish as a second language, to promote proficiency in interpretative communication, to assess the National Standards as they pertain to learning Spanish, and to stimulate further interest in the teaching and learning of Spanish. The NSEs are inexpensive (\$3/student), and teachers have until the last day of January each year to register their students online for the examinations. There is no obligation for teachers or school districts to join the AATSP in order to participate in the NSEs.

The NSEs are based on the National Standards for Foreign Language Learning (National Standards 2006) and measure student ability separately in achievement and proficiency. The achievement section assesses the content standards by measuring student knowledge of vocabulary and grammar. The proficiency section assesses the interpretative domain by gauging student performance in reading and listening comprehension. A total score is determined by combining students’ scores on the achievement and proficiency sections. Percentile rankings are also calculated. The NSE staff provides participating teachers with data regarding each student’s performance.

The NSEs are recognized by various teaching and administrative organizations and associations at the local, state, and national levels. According to Cessna-Buscemi, teachers report using the NSEs to prepare students to take other standardized evaluations, such as the Advanced Placement Exam, the International Baccalaureate Exam, and college placement exams. Cessna-Buscemi finds that school administrators use data from the NSEs to document academic improvement over an academic year. The data from the NSEs are also used to construct the following year’s examinations; each year a team of experts convenes to write new exams for each of the seven levels. Detailed information regarding the examinations, including copies of old examinations, is available to the public (<http://www.nationalspanishexam.org/>).

3.3 Subjects

One hundred eighty-three Spanish teachers self-selected to participate in this study. Of this group, 120 filled out all parts of the surveys. Females (90.6%) outnumbered males and the mean age was 46.30 years. The sample was predominantly Caucasian (79%) followed by Latinos (13%), Native Americans (2%), and African Americans (1%). The remainder of the sample self-classified as multiracial (4%) and Asian (1%). The majority held graduate degrees (78% master’s degree, 2% doctorate) and 89% of the participants reported having studied abroad for a mean length of seven months over the span of their careers as Spanish teachers. Ninety percent reported teaching only Spanish in their schools while the remainder reported teaching two languages, specifically Spanish and French.

Most of the teachers taught in public (58%) schools. The remainder of the teachers taught in private (41%) schools or independent schools (1%). Slightly more than half of the participants (55%) view the NSEs as a motivational contest instead of a valid assessment of students’ abilities to use the Spanish language. About a third of the teachers (38%) reported administering the

exams to all of their students, while 41% reported giving the exams to only those students who volunteer to take it. The remainder of the participants (21%) stated that they only administer the exams to their best students. Most of the teachers reported that they planned to continue teaching the following year while 4% reported that they would be leaving the profession. The sample's demographics reflect the demographics for the national teaching population in general in terms of age, ethnicity, and gender (Coopersmith 2009; National Center for Education Statistics 2006). Additionally, the sample's demographics are comparable to the demographics of language teachers (Swanson 2008, 2010a, 2010b, 2012; Swanson and Huff 2010).

In order to be able to generalize the findings, those individuals who only gave the NSEs to their best students were excluded from the dataset prior to data analysis. Thus, the final number of teachers included in this study was 95. The demographic data of these individuals was similar to that of the entire sample. Demographic data about the students ($n=4,831$) of these instructors were not collected. Student data included only the scores on the NSEs and the level of the NSE. Specific differences on each of the seven exams were not sought. The dataset for this exploratory study included students' scores on all of the seven exams. Scores from students who signed up for the exam, but never took it, were removed from the dataset because their scores were displayed as zeros, and a score of zero was not necessarily indicative of student knowledge and ability in Spanish. The inclusion of such scores would skew the accuracy of the findings of the study.

3.4 Instrumentation: Teachers' Sense of Efficacy

The researcher used two valid and reliable instruments to measure Spanish teachers' sense of efficacy. The first survey was the 12-item TSES (Tschannen-Moran and Woolfolk Hoy 2001). The TSES was selected because it contains an expanded list of teacher capabilities not specific to any content areas, and it was validated against other well-known and regarded measures of teacher efficacy. The instrument has been shown to be valid when used against other respected teacher efficacy surveys and has strong reliability coefficients for the instrument (.92) as well as its subscales (Chacón 2005; Swanson 2010a, 2012; Tschannen-Moran and Woolfolk Hoy 2001). It contains three subscales associated with teacher efficacy: instructional strategy (.85), classroom management (.92), and student engagement (.84).

The second survey was the 14-item Second/Foreign Language Teacher Efficacy Scale (S/FLTES) (Swanson 2012) that was specifically designed to measure language teachers' sense of efficacy in teaching languages. Originally, it contained ten items that measured teacher confidence in the areas of content knowledge and facilitation of instruction (Swanson 2012; Swanson and Huff 2010). Later, the researcher added four items to measure teacher confidence to provide cultural instruction to their students and verified a third factor of language teacher efficacy. Both instruments were validated against the TSES (Swanson 2010a, 2012), and show strong reliability coefficients for the survey (.93) as well as its three subscales: content knowledge (.93), the facilitation of instruction (.93), and cultural instruction (.94).

4. Findings

The data were analyzed using SPSS 19.0 and met all of the methodological and statistical criteria to conduct the calculations reported here. To minimize type 1 testing errors, a statistical power analysis was conducted, and it was determined that the sample size was adequate for interpreting the results with a 95% confidence interval. Preliminary data analysis indicated that the teacher efficacy data was negatively skewed (the mass of the distribution of means is concentrated to the far extreme of the measurement scale, closer to 100). Nevertheless, the data was considered statistically fit for accurate analysis and met the assumptions for the statistical procedures used for this study. Student data were distributed normally.

To begin, the researcher calculated reliability coefficients for each instrument. Coefficients similar to those reported by Tschannen-Moran and Woolfolk Hoy (2001) were found for the 12-item TSES scale (.94) and its three subscales: instructional strategy (.89), classroom management (.93), and student engagement (.88). Afterward, the researcher calculated coefficients for the 14-item S/FLTES (.93) and its three subscales: content knowledge (.90), teacher as facilitator (.89), and cultural instruction (.95). The reliability coefficients were similar to those reported by Swanson (2012). Each of the instruments' reliability coefficients indicated satisfactory consistency for research purposes (Henson 2001).

In order to answer the first research question about level of efficacy in teaching Spanish for teachers who choose to administer the NSEs to their students, means and standard deviations for both the S/FLTES and the TSES were calculated. Table 1 shows the rank order of the items for both scales for the entire sample. Inspection of the individual items for both scales indicated that the means were at the higher end of the scale.

Table 1. Means and Standard Deviations for Teacher Efficacy Survey Items

S/FLTES	Sample		Stayers		Leavers	
	M	SD	M	SD	M	SD
<i>How much confidence do you have in your. . .</i>						
ability to write a personal letter to a pen pal in the language(s) you teach who is living in a foreign country? [CK]	95.47	7.80	95.42	7.85	97.67	2.51
ability to read and understand a newspaper printed in another country in the language(s) you teach? [CK]	93.92	7.17	93.94	7.23	95.00	5.00
ability to have a conversation with a native speaker in the language(s) you teach? [CK]	93.11	10.23	92.75	10.62	95.00	5.00
ability to help students learn at the first year level of the language(s) you teach? [TF]	90.88	12.05	91.12	11.84	86.67	5.77
ability to fully understand a movie that only uses the language(s) you teach? [CK]	89.23	10.83	89.01	10.95	94.33	6.02
ability to help students learn at highest levels of the language(s) you teach? [TF]	89.09	10.57	89.22	10.85	83.33	5.77
own knowledge of the language(s) you teach that you can lower your students' anxiety about learning the language(s) you teach. [TF]	86.84	11.71	87.04	11.40	86.67	11.54
own knowledge of the language(s) you teach that you can motivate your students to learn about the language(s) you teach? [TF]	86.58	10.45	86.52	10.54	86.67	5.77
own knowledge of the language(s) you teach that you can increase student achievement in your classes? [TF]	86.31	10.26	86.29	10.48	89.33	9.01
own knowledge of the language(s) you teach that you can foster your students' interest about learning the language(s) you teach? [TF]	86.25	11.00	86.11	11.11	86.67	5.77

Continued on page 12

Table 1. (continued)

S/FLTES	Sample		Stayers		Leavers	
	M	SD	M	SD	M	SD
<i>How much confidence do you have in your . . .</i>						
ability to teach how people from different countries and cultures act and communicate? [CI]	85.78	12.04	85.86	12.41	81.67	7.63
ability to teach about the relationship between the practices and perspectives of the culture studied? [CI]	85.66	11.74	85.69	12.09	76.67	5.77
ability to teach about the relationship between the products and perspectives of the culture studied? [CI]	84.89	11.58	84.87	11.94	78.33	2.88
ability to teach how people from different countries and cultures perceive the world around them? [CI]	82.69	13.72	83.18	13.79	81.67	7.63
TSES						
<i>How confident are you that you can . . .</i>						
provide an alternative explanation or example when students are confused? [IS]	91.08	12.21	91.30	12.56	93.00	5.19
use a variety of assessment strategies? [IS]	88.92	10.39	89.09	9.97	89.67	9.50
craft good questions for your students? [IS]	86.08	11.59	86.44	11.85	80.00	10.00
establish a classroom management system with each group of students? [CM]	85.76	12.78	85.81	12.65	84.67	17.61
get children to follow classroom rules? [CM]	85.72	12.13	86.28	11.82	79.67	26.08
implement alternative strategies in your classroom? [IS]	84.14	13.43	84.46	13.64	85.00	8.66
control disruptive behavior in the classroom? [CM]	83.47	14.34	84.04	14.06	73.33	20.81
calm a student who is disruptive or noisy? [CM]	82.62	13.26	83.05	13.23	78.33	20.21
assist families in helping their children do well in school? [SE]	81.69	15.06	82.24	15.58	80.00	0.00
help your students value learning? [SE]	80.41	13.71	80.42	14.03	76.67	15.27
get students to believe they can do well on school work? [SE]	80.13	13.99	80.23	14.22	81.67	23.62
can motivate students who show low interest in school work? [SE]	72.72	16.64	73.66	16.03	76.67	23.09

Level of significance reflects difference in means between responses from novices and responses from veterans. CK = Content Knowledge, TF = Teacher as Facilitator, CI = Cultural Instruction, IS = Instructional Strategy, CM = Classroom Management, SE = Student Engagement.

The participants indicated that they felt confident teaching Spanish, with a mean range for all items measuring efficacy in teaching Spanish from 82.69 to 95.47. The two highest rated items on the S/FLTES were perceived confidence in writing a personal letter in the target language(s) and reading and understanding a newspaper printed in another country in the target language(s) taught. The two lowest ratings were found for two cultural instruction items: 1) the ability to teach about the relationship between the products and perspectives of the culture studied and 2) the ability to teach how people from different countries and cultures perceive the world around them. Table 1 also shows that the means for the TSES items ranged from 72.72 to 91.08. An inspection of the items showed that participants rated their confidence highest on the items measuring efficacy in instructional strategy and lowest on the items measuring student engagement.

To answer the second research question about the relationship between the teachers' sense of efficacy in teaching Spanish and their students' scores on the NSEs, it was necessary to distinguish between groups of Spanish teachers with high and low efficacy in teaching Spanish. The researcher divided the teacher participants' scores on the two efficacy instruments into quartiles to differentiate between groups who reported having a high and low sense of efficacy in teaching Spanish. The first quartile represented the lowest 25% of the teachers' scores on the efficacy instruments. The second quartile contained teachers' scores between the 26th and 50th percentiles. The third quartile included teachers' scores between the 51st and 75th percentiles, and the fourth quartile represented teachers' efficacy scores at and above the 76th percentile.

After creating quartiles, the researcher compared the means of the Spanish teachers' scores on the S/FLTES and the TSES in order to determine if significant differences existed between the participants' sense of efficacy in teaching Spanish and their students' scores on the NSEs using a multivariate analysis of variance (MANOVA) statistical procedure. Significant findings regarding mean differences of the students' scores on the NSEs between the perceived teaching efficacy of Spanish teachers in the first and fourth quartiles were found (see Table 2).

Examination of the output from the statistical tests for the S/FLTES showed that there was a 13.26 point mean differential between students' scores for the total exam. That is, students of those individuals who reported a high sense of efficacy in teaching Spanish scored 13.26 points higher on the NSEs than those teachers who reported a lower sense of efficacy. Students of teachers with a high sense of efficacy on average scored 234.95 points on the total exam whereas those students whose teachers reported a lower sense of efficacy in teaching Spanish scored 221.95 points (see Table 3).

Similar differences were found for both the Achievement and Proficiency subtests on the S/FLTES. Large point differences on the NSEs were found for the three subscales of the S/FLTES. The largest differential was found for the total score of the NSEs on the Teacher as Facilitator factor ($M=26.91$), followed by the factors measuring Content Knowledge ($M=19.86$) and Cultural Instruction ($M=14.48$), respectively. The smallest significant mean difference was found for Cultural Instruction ($M=4.28$) on the Proficiency subsection of the NSEs, which tests students' knowledge of reading and listening in Spanish. For the classroom teacher with respect to levels of self-rated Spanish teacher sense of efficacy, a difference of 26.91 points on the Teacher as Facilitator subscale on the total exam score equated to 6.7% of the maximum score on the exam.

Turning to the TSES and its three subscales, the largest mean difference for the total score on the NSEs was found on the Classroom Management factor ($M=26.03$). Students' total scores on the NSEs were separated by less than two points ($M=1.94$), indicating that in a non-content specific context, there was very little difference between those teachers reporting higher levels of teaching efficacy compared to those who report lower levels of teaching efficacy. However, when examining the findings from the Achievement portion of the NSEs, which measures vocabulary and grammar knowledge, several mean differences emerged. First, students of teachers with a higher sense of efficacy recorded slightly lower scores than peers

Table 2. Mean Differences between Students' Scores on the NSEs and Spanish Teachers' Sense of Efficacy in Teaching Spanish

	S/FLTES		Teacher as Facilitator		Content Knowledge		Cultural Instruction		TSES		Student Engagement		Classroom Management		Instructional Strategy	
	Q1	Q4	Q1	Q4	Q1	Q4	Q1	Q4	Q1	Q4	Q1	Q4	Q1	Q4	Q1	Q4
Achievement	7.90***	13.00***	8.69***	13.00***	10.20***	3.09*	0.13	9.07***	1.87							
Proficiency	5.36***	6.86***	18.22***	6.86***	4.28**	5.03***	8.07***	16.96***	8.17***							
Total Exam	13.26***	19.86***	26.91***	19.86***	14.48***	1.94	7.93*	26.03***	6.29*							

*p<.05, **p<.01, ***p<.001

Table 3. Raw Score Point Differential and Means between Students' Scores on the NSEs and Spanish Teachers' Sense of Efficacy in Teaching Spanish

	S/FLTES		Teacher as Facilitator		Content Knowledge		Cultural Instruction		TSES		Student Engagement		Classroom Management		Instructional Strategy	
	Q1	Q4	Q1	Q4	Q1	Q4	Q1	Q4	Q1	Q4	Q1	Q4	Q1	Q4	Q1	Q4
Achievement	103.34 (37.21)	111.24 (39.76)	105.40 (37.38)	114.09 (36.21)	97.51 (38.21)	110.51 (39.76)	100.38 (36.62)	110.59 (39.24)	107.16 (38.46)	104.07 (38.16)	107.75 (38.35)	107.62 (38.29)	100.67 (37.51)	109.74 (36.51)	104.62 (38.10)	102.74 (38.13)
Proficiency	118.35 (34.99)	123.71 (42.36)	115.63 (34.47)	133.86 (36.80)	114.85 (35.76)	121.71 (41.19)	119.46 (34.10)	123.74 (41.58)	117.10 (34.87)	122.13 (42.54)	118.57 (34.56)	126.64 (41.70)	113.66 (35.67)	130.63 (35.71)	114.97 (33.60)	123.14 (41.33)
Total Exam	221.69 (63.06)	234.95 (73.65)	221.03 (63.24)	247.95 (65.50)	212.36 (65.64)	232.22 (72.73)	219.84 (62.36)	234.33 (72.00)	224.26 (65.28)	226.20 (73.82)	226.32 (65.12)	234.26 (72.76)	214.34 (64.66)	240.37 (65.20)	219.58 (62.59)	225.88 (70.05)

who had teachers with a lower sense of efficacy on the TSES and two of its subscales, Student Engagement and Instructional Strategy. However, on the same portion of the NSEs, students of those individuals who reported a high sense of efficacy in teaching Spanish scored significantly higher ($M=9.07$) on the Classroom Management subscale than those teachers who reported a lower sense of efficacy, indicating the need for classroom teachers to have enhanced classroom management skills in order to bring about improved learning. An even larger mean difference was found on the subscale of the TSES on the Proficiency subtest.

To answer the final research question about the relationship between the teachers' level of efficacy in teaching Spanish and their choice to remain in or leave the profession, the researcher first examined the means and standard deviations for all individual items on the S/FLTES and TSES (Table 1). Characterized as "leavers" (in contrast to "stayers") by the National Center for Education Statistics (2002) and in terms of the items comprising the S/FLTES, "leavers" were found to possess a stronger sense of efficacy on all four items of the Content Knowledge factor than those who reported to be staying in the profession. However, "leavers" also were found to have a similar or lower sense of efficacy on the items constituting the Teacher as Facilitator factor. In particular, a lower sense of efficacy was found for the item measuring teacher confidence to help students at the first year level of language instruction, which has been shown to be a contributive factor in language teacher attrition (Swanson 2010a). Additionally, "leavers" reported a decreased sense of efficacy on all of the Cultural Instruction items, which also have been linked to language teacher attrition (Swanson 2012). When examining the TSES items, those choosing to leave the profession reported a lower sense of efficacy in teaching on approximately half of the items measuring Instructional Strategy and Student Engagement. However, "stayers" were found to have a stronger sense of efficacy on all four items measuring Classroom Management, which again has been linked to language teacher attrition (Swanson 2012). Next, the researcher conducted an analysis of variance. No significant differences were found. However, 6% of the Spanish teachers reported to be leaving at the end of the academic year and 8% indicated that they would continue teaching but at a different school. Those leaving were primarily female between the ages of 29 and 45 with graduate degrees who did not report having participated in a study abroad experience.

5. Discussion

The purpose of this research was to examine the relationship between Spanish teachers' sense of teaching efficacy and how their efficacy is related to students' scores on the NSEs. Additionally, the study investigated if participants' sense of efficacy in teaching Spanish was related to teacher attrition. As noted earlier, the sample's demographics reflect the demographics for the national teaching population in general in terms of age, ethnicity, and gender (Coopersmith 2009; National Center for Education Statistics 2006) and were similar to language teachers in previous research (Swanson 2008, 2010a, 2010b, 2012; Swanson and Huff 2010).

The means for teacher confidence on both the TSES and S/FLTES were found to be at the higher end of the rating scale, suggesting that the participants were highly confident in their abilities to teach Spanish. Teachers expressed the most confidence in their ability to write, read, speak, and listen to Spanish. However, participants were least confident in two of the four items from the cultural instruction factor: 1) the ability to teach about the relationship between the products and perspectives of the culture studied, and 2) the ability to teach how people from different countries and cultures perceive the world around them. Additionally, participants reported a strong sense of efficacy in instructional strategy and a lesser sense of efficacy in classroom management and student engagement (motivation), which is consistent with the literature on language teachers (Swanson 2010a, 2010b, 2012; Swanson and Huff 2010).

Such findings were not unexpected given No Child Left Behind's emphasis on content knowledge, as teachers must be considered highly qualified. Nevertheless, findings suggest that

other teacher attributes, such as cultural instruction, need to be included in such a designation of language teachers. For years, researchers, including me, have advocated making legislators and other policy makers aware of the fact that basing teacher certification solely on content knowledge is clearly ineffective. Whereas teacher proficiency in the target language is fundamental, “teacher effectiveness cannot be compromised at the expense of other aspects of teaching languages” (Swanson 2012: 93). Diane Ravitch (2010), one of the chief architects of No Child Left Behind and author of *The Death and Life of the Great American School System*, concluded that the American business model is not an appropriate way to improve schools. She notes her disillusion about No Child Left Behind because “the law bypassed the curriculum and standards” (15) and the legislation “had nothing at all to do with the substance of learning” (16).

The National Standards have everything to do with the substance of learning and serve as a guide for language learning. Based on the National Standards, successful language learners use the target language to communicate for real purposes, understand multicultural and global issues, connect with other disciplines and acquire new knowledge, make comparisons with their own language and culture, and participate in multilingual communities (National Standards 2006). The NSEs are based on these standards, and while they serve as one of several language learning assessment choices, they are the most widely used examinations of Spanish in the United States (National Spanish Examinations 2012).

The present study examined students’ scores on the NSEs and their teachers’ sense of efficacy in teaching Spanish. Findings from this research support recent studies that teachers’ sense of efficacy is related to student achievement (Akbari and Karimi Allvar 2010; Eslami and Fatahi 2008), and these findings point to serious implications for multiple stakeholders. First, teachers need to become more aware of their sense of efficacy. Results from the MANOVA showed a statistically significant mean difference of 13.26 points on the total exam score of NSEs for teachers who expressed a high sense of efficacy in teaching Spanish. Additionally, large mean differences were found on the S/FLTES’s three subscales, with the largest mean difference on the Teacher as Facilitator factor. Moreover, while differences were found for classroom management and student engagement (motivation), large differences were also found on the cultural instruction factor, which is not only a vital component of teacher effectiveness, but has also been shown to be a component of career satisfaction and longevity in the profession.

To contextualize the importance of such differences between teachers with a high sense of efficacy and those with a lower sense of efficacy, the achievement gain can be viewed through the notion of the grade scale. In a typical classroom, in order to receive an A in the class, a student’s final score at the end of the grading period may need to be between 90–100% of the total points possible. In order to receive a B, the student’s score would need to be between 80–89%, and so forth in increments of 10%. Thus, a difference of 26.91 points on the Teacher as Facilitator subscale on the total exam score equates to 6.7% of the maximum score on the exam, which could be the difference between a B– and a B+ for a student’s grade. Similarly, it could be the difference between a B (85%) and an A– (91%) or even the difference between a C (75%) and a D+ (68%).

The implications of such findings suggest that it would be prudent for Spanish teachers to assess their efficacy and to determine strategies for increasing confidence in noted areas needing improvement. In a few short minutes, they could self-administer the S/FLTES and then score and rank order the items from high to low scores of efficacy in teaching in order to determine areas for improvement. Once determined, professional development opportunities could be sought.

In addition to teachers, findings from this study have implications for teacher education programs and support the research base in that students of efficacious teachers tend to outperform those in other classes (Anderson, Greene, and Loewen 1988; Good and Brophy 2003; Midgley, Feldlaufer, and Eccles 1989). As discussed earlier, successful teaching of any language involves so much more than content knowledge. Time needs to be spent working on methods to improve student motivation (Guilloteaux and Dörnyei 2008). Among many characteristics

of effective teachers, the ability to engage students from the moment they enter the learning environment is vital (Cabello and Terrell 1994; Cruickshank, Jenkins, and Metcalf 2003). Many times both preservice students and their instructors focus on instructional methods, assessment, and classroom management. Inasmuch as such practices relate directly to effective teaching, good teaching is not enough to ensure student achievement.

Likewise, the critical nature of a teacher's sense of efficacy during teaching training needs to be kept in mind. As preservice teachers, these individuals need abundant opportunities to observe master teachers and experience mastery firsthand. According to theory (Tschannen-Moran et al. 1998), the proficiency of a performance creates a new mastery experience, which in turn provides new information that influences future efficacy beliefs. A greater sense of efficacy brings about greater effort and persistence, leading to better performance, which produces greater efficacy. However, the reverse is also true theoretically. A lesser sense of efficacy leads teachers to exert less effort and give up more easily, which brings about poor teaching outcomes, a decreased sense of efficacy, and, ultimately, professional attrition.

Thus, as preservice and novice teachers, who are much more prone to attrition than veteran teachers (National Commission on Teaching and America's Future 2002), begin to feel an increased sense of efficacy in teaching, professional attrition may possibly decrease. Likewise, increased perceptions of efficacy in teaching should bring about both an increase in student self-efficacy to learn languages and in teachers' use of best practices in the classroom. Research indicates that teachers who implement best practices in the classroom not only report having a higher sense of efficacy but can also note improvements in student progress (Englert and Tarrant 1995), which is imperative. Clearly, by recognizing the importance of a teacher's sense of efficacy in relation to student achievement, perhaps as students begin to note progress in their language learning, both teachers and their students will flourish.

While this research focuses attention on the Spanish teachers and their students, the findings have implications in a broader context. First, language teachers in general could use the S/FLTES to identify areas of strength and areas for improvement. The S/FLTES has been shown to be a valid and reliable instrument for language teachers (Swanson 2010a, 2010b, 2012; Swanson and Huff 2010) and is an appropriate assessment for these purposes. Second, cultural instruction appears not only to be a factor in language teaching, but also an important factor that influences student achievement and teacher attrition. In addition to teacher-education faculty addressing the need to focus on cultural instruction when working with preservice teachers, inservice teachers need to become proactive agents in their own learning. Study abroad opportunities abound and research indicates that language teachers who participate in such programs tend to have a higher sense of efficacy and remain in the profession (Swanson 2012).

In light of these findings, it is important to note that this research is not without its limitations. Although efforts were made to have a representative and reasonably large sample, it is possible that a larger data set would show additional findings. Furthermore, the data were self-reported, which does not allow the participants' survey responses to be verified for accuracy. A mixed methods approach that included qualitative interviews with teachers in the classroom may add more critical information. Moreover, interviews with students would be informative. Such research approaches may help broaden our understanding of the findings reported in this article. Clearly, the past fifty years of research on teachers' sense of efficacy has uncovered many variables that affect the teaching profession, and more research is justified in order to advance our profession.

NOTE

¹To be considered highly qualified in the United States, teachers must have a bachelor's degree, full state certification or licensure, and proof that they know each subject they teach (United States Department of Education 2004).

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