



From Teacher Training Through the First Year on the Job: Changes in Foreign Language Teacher Efficacy

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Abstract

For decades, there has been a shortage of language teachers in the US and other parts of the world. While teacher retirements and attrition certainly help explain the shortage, teachers' sense of efficacy in teaching languages also plays a role, especially among novice instructors (Swanson, 2010a). The present quantitative study focuses on measuring teacher education candidates' sense of efficacy in teaching languages at two points: near the beginning of the teacher education program and one year following program completion. Tschannen-Moran and Woolfolk Hoy's (2001) Teacher Sense of Efficacy Scale and Swanson's (2010a) Foreign Language Teacher Efficacy Scale were used to measure participants' sense of efficacy in teaching. Data analysis revealed that participants' sense of efficacy in the area of content knowledge increased over time. However, mixed results in participants' confidence in other areas such as student engagement and classroom management were found. The findings have implications for teacher education program and program directors.

1 Introduction

Beginning with the Eisenhower administration, leaders in the United States (US) have been calling attention to the need to increase the number of foreign language (FL) educators at all levels in order to arrest the decline in the number of language specialists in US classrooms (Flattau et al., 2006). Novice teacher attrition is problematic, because almost half of newly-minted teachers entering the profession choose to quit within the first few years on the job (Lambert, 2006; National Commission on Teaching and America's Future, 2002). Data regarding the attrition rate for private school teachers show an even higher rate for these individuals (Kaiser, 2011; Keigher, 2010).

Research indicates that multiple factors play a role in the shortage of teachers such as retirement, increased student enrollment, current legislation, working conditions, and teachers' perceptions about teaching and the profession in general (Swanson, 2008, 2010b). One factor that has received little attention in the literature is pre-service teachers' sense of efficacy in teaching languages and how such perceptions about one's abilities to teach languages change as they progress through teacher training into the first year on the job. The purpose of the present study is to examine this issue among FL teachers in a teacher education program as they pass through the program and enter the teaching workforce.

2 Conceptual framework

Grounded in Social Cognitive Theory (Bandura, 1997), which emphasizes the exercise of human agency where people can exercise some influence over what they do, teachers' sense of efficacy represents a judgment about a person's belief in his or her ability to bring about desired outcomes of student engagement and learning (Tschannen-Moran & Woolfolk Hoy, 2001). According to theory, people are self-organizing, self-regulating, self-reflecting, and proactive. People set goals, predict probable outcomes, monitor and regulate their actions, and then reflect on their personal efficacy. These self-efficacy beliefs affect people's goals and behaviors, which are influenced by environmental factors. Moreover, efficacy beliefs determine how people perceive environmental obstacles and opportunities as well as affect their choice of activities, the amount of effort expended, and how long individuals will continue when confronted with obstacles.

It is posited that if an individual has a strong sense of efficacy in a certain area, he or she tends to set higher goals, fear failure less, and persist longer in the face of obstacles. On the other hand, if a person has a weaker sense of efficacy, he or she may avoid the task altogether or give up easily as difficulties emerge (Tschannen-Moran, Woolfolk Hoy, & Hoy, 1998). In the case of teachers, those who do not expect to be successful with certain students are more apt to exert less effort in the preparation and delivery of instruction and give up easily at the first indication of difficulty, even if they are aware of strategies that could assist students, if applied (Tschannen-Moran & Woolfolk Hoy, 2007).

While little is known about the sources of teacher self-efficacy (Labone, 2004), Bandura (1997) proposed four sources: mastery experiences, vicarious experiences (observing others), social persuasion, and physiological factors. He finds that the most influential source is mastery experience – the interpreted result of one's past performance. He believes that such knowledge is the most important factor, because success tends to raise self-efficacy, whereas failure can undermine it, especially if failures occur before a person establishes a solid sense of efficacy.

Tschannen-Moran and Woolfolk Hoy (2007) note several important concepts related to efficacy. First, it is important to note that "self-efficacy is a motivational construct based on self-perception of competence rather than actual level of competence" (p. 946). External assessments of teaching prowess may show a different level of competence. Following Bandura's suggestion, they feel that it is best when teachers slightly overestimate their actual teaching skills, because their motivation to succeed and push through setbacks will help them make the most of their skills. Second, novice educators frequently enter the profession optimistic about the level of impact they will have in the classroom, and often encounter a professional jolt, when they realize the challenges in front of them. Tschannen-Moran and Woolfolk Hoy (2007) warn that such encounters may lead novices to recalibrate their idea of quality instruction and lower their standards for learning as a mechanism of self-preservation in order to avoid a painful self-assessment of failure. However, such failures may motivate novices to increase their knowledge about teaching and learning, if the teacher can maintain a sufficient level of belief in the possibility of future successes.

Research confirms the notion that efficacy is most malleable early in learning and that mastery experiences are the most powerful of the four sources fueling one's belief system (Riggs, 1995). However, prior to entering the teaching profession, pre-service teachers may experience fewer mastery experiences and the other three sources can help shape one's sense of efficacy, until an abundance of mastery experiences can be obtained during field placements in schools. Bandura (1997) posits that once an individual's self-efficacy beliefs have been firmly established, it may take a shock of some sort to provoke a person to reassess his or her beliefs that he or she can influence how well students learn, even those who may be difficult or unmotivated.

However, research confirming Bandura's notion that pre-service teachers need a shock of sorts for an individual to reassess his or her beliefs is sparse. A review of the literature indicates that demographic variables such as race and gender do not play a role in one's self-efficacy beliefs (Tschannen-Moran & Woolfolk Hoy, 2007). However, research indicates that teacher education course work and field placements do play a role, and that these beliefs are more likely to increase when teacher candidates are given opportunities to demonstrate their abilities (Spector, 1990; Wat-

ters & Ginns, 1995; Wenner, 2001). However, “the optimism of young teachers may be somewhat tarnished when confronted with the realities and complexities of the teaching task” (Woolfolk Hoy, 2000, p. 5), because one’s sense of efficacy tends to decrease after graduation through the end of the first year of teaching (Moseley, Reinke, & Bookour, 2003; Woolfolk Hoy, 2000).

Research in general educational contexts shows that teachers with a higher sense of efficacy exhibit greater enthusiasm for teaching (Hall, Burley, Villeme, & Brockmeier, 1992), have greater commitment to teaching (Coladarci, 1992), are more willing to implement innovations (Guskey, 1988; Rangel, 1997; Smylie, 1988), have improved classroom management strategies (Ashton & Webb, 1986), are less critical of students when they err (Ashton & Webb, 1986), and demonstrate persistence and resilience in the face of setbacks (Tschannen-Moran & Woolfolk Hoy, 2001). Additionally, educators with a greater sense of efficacy demonstrate greater longevity in the profession (Burley, Hall, Villeme, & Brockmeier, 1991).

While much of the research on teachers’ sense of efficacy tended to focus on efficacy in a general sense, there is a thread of research in context-specific domains such as science and mathematics. For example, research shows the existence of two separate and yet uncorrelated factors associated with teaching science: personal science teaching efficacy and science teaching outcome expectancy (Enochs & Riggs, 1990). Teachers with a stronger sense of personal science teaching efficacy have been found to spend more time teaching science (Riggs & Jesunathadas, 1993). Specific to the instruction, biology students’ test scores are associated with the teacher’s expectations that he or she held for students to learn biology when controlling for student motivation, home environment, and availability of classroom materials (Angle & Moseley, 2010).

Much like teaching science, the area of mathematics has received substantial attention (Brand & Wilkins, 2007; Butty, 2001; Enoch, Smith, & Huinker, 2000; Philippou & Charalambous, 2005; Swars, 2005; Swars, Hart, Smith, & Tolar, 2007). This body of research has shown that individuals who report having a strong sense of efficacy in teaching and feel that they are effective in the classroom tend to be more willing to be creative and use inquiry-based teaching and learning methods (Wilkins, 2008).

However, unlike science and mathematics, the literature base investigating foreign language teaching efficacy is nascent. Conceptualized under a paradigm of teaching languages that moves away from teaching language with regard to the four skills (i.e. reading, writing, listening, and speaking), language learning now focuses on an interactive process rather than any one skill being addressed in isolation, namely teaching using the three modes of communication (i.e. interpersonal, interpretive, and presentational). Under the new framework (National Standards in Foreign Language Education Project, 2006), it is hypothesized that if language teachers’ perceived efficacy in the three modes of communication in the target language is strong, the more likely they will be to work harder with students and persist for longer periods of time, even when students are challenging to teach, in part because these language specialists believe in themselves and in their students. Conversely, a decreased sense of efficacy in teaching languages could have the opposite effect.

Studies investigating FL language teacher efficacy have shown a direct relationship between instructors’ efficacy in teaching English as a Second Language and their English language proficiency (Chacón, 2005) as well as an association between confidence to teach French and native and non-native speakers of French (Mills & Allen, 2008), which suggests that content knowledge plays a role in language instructors’ confidence to teach languages. Additionally, research shows that teacher efficacy in teaching languages is related to teachers’ decisions to leave the classroom (Swanson, 2010b, 2012; Swanson & Huff, 2010). That is, individuals with a lower sense of efficacy in teaching languages are more likely to leave the profession than those who are more confident in their abilities, which adds to the language teacher shortage.

While the literature base on language teacher efficacy is emerging, there is a dearth of research on pre-service FL teacher efficacy. Generally, pre-service FL teacher education programs in the US tend to be small ($N = 4-10$), resulting in few FL teachers completing programs each year (Judith Shrum, personal communication, April 2, 2013). In an effort to understand more about FL teaching and teachers’ perceived abilities in teaching languages, the Foreign Language Teacher Efficacy Scale (FLTES, Swanson, 2010a) was administered to pre-service teachers in one of the

largest FL teacher education programs in the nation, with over 100 students in the program currently. The 10-item instrument is a reliable and valid instrument (Swanson, 2010a); it was validated against Tschannen-Moran and Woolfolk Hoy's (2001) 12-item Teachers' Sense of Efficacy Scale (TSES), which was validated against several other efficacy scales. The FLTES has two subscales: content knowledge and facilitation of instruction. The TSES contains three subscales: instructional strategy, classroom management, and student engagement.

The FLTES survey items are grounded in the three modes of communication, because FL teachers not only need a high level of proficiency in the target language (Peyton, 1997), but they also must have "the ability to comprehend contemporary media in the L2, both written and oral, and interact successfully with native speakers" (Phillips, 1997, p. 12). The FLTES uses a 0 (cannot do at all) to 100 (highly certain can do) rating scale for the survey items, which allow for greater discrimination than the traditional Likert 5-point scale (Bandura, 1997; Pajares, 1997; Pajares, Miller, & Johnson, 1999).

Thus, noting a shortage of FL teachers, how one's sense of efficacy is related to teacher attrition, and that self-efficacy beliefs are pliable at the early stages of career development, the present study focuses on the measurement of pre-service FL teachers' sense of efficacy in teaching languages at two points, at entry level in a teacher education program and after the first year of teaching. The research seeks to understand changes in novice FL teachers' sense of efficacy. The questions that guide this research are:

1. What is the perceived sense of efficacy of pre-service FL teachers at the start of the teacher education program?
2. What is the perceived sense of efficacy of those same individuals one year following completion of the teacher education program?
3. What changes in teachers' sense of efficacy take place from the beginning of the teacher education program through the first year on the job?

3 Methods

This research was conducted at Georgia State University in Atlanta, Georgia, USA, and included 47 pre-service teacher candidates studying to become FL teachers between 2008 and 2011. The majority of the subjects were female (74%) from very diverse backgrounds. Forty-four percent of the participants were not from the US and represented four languages (French, German, Latin, and Spanish). Average age of the participants was 31 years, and fewer than 7% of the participants had a graduate degree. Most of the subjects reported teaching in suburban schools. The demographics for this sample are representative for teachers in general and those teaching languages where more than 70% of teachers are female (National Center for Education Statistics, 2006; Swanson, 2010b, 2012).

Students were administered the FLTES, the TSES (paper versions), and a student demographic sheet requesting information regarding age, gender, ethnicity, language of study, study abroad participation, and context for teaching (e.g. rural, suburban, urban) during a mandatory and introductory class focusing on second language teaching and learning. One year following completion of the teacher education program, students were contacted online and requested to fill out the two instruments again. Of the 47 participants, complete data were obtained from 38 participants.

4 Data analysis and findings

Data were input into *SPSS 17.0* for analysis. Due to the small number of individuals in the sample, data are reported using descriptive statistics, because more robust statistical procedures require much larger sample sizes. Nevertheless, important conclusions can be drawn from the data.

First, reliability coefficients were computed for each instrument using Cronbach's Alpha procedure in *SPSS*. Coefficients similar to those reported by Tschannen-Moran and Woolfolk Hoy (2001) were found for the 12-item TSES (.91) and its three subscales: instructional strategy (.84), classroom management (.90), and student engagement (.85). Reliability coefficients for the FLTES

(.89) as well as those for its two factors, content knowledge (.93) and teacher as facilitator (.92) were also computed and found to be consistent with earlier findings (Swanson, 2010a). Each of the instruments' reliability coefficients indicated satisfactory consistency for research purposes (Henson, 2001).

To answer the first research question about the participants' sense of efficacy at the start of the teacher education program, means and standard deviations were calculated for both the FLTES and the TSES. The bulk of the distribution of means was concentrated to the far extreme of the measurement scale, closer to 100. Nevertheless, the data were considered statistically fit for data analysis. Table 1 shows the rank order of the items for the FLTES for both administrations of the efficacy scale.

Table 1. Means and standard deviations for two administrations of the FL Teacher Efficacy Scale with results for survey items in descending order.

FLTES	At Start of Teacher Education Program		One Year of Service	
	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>
How much confidence . . .				
- to write a personal letter to a pen pal in the language(s) you teach who is living in a foreign country? [CK]	90.38	16.87	94.45	15.65
- to read and understand a newspaper printed in another country in the language(s) you teach? [CK]	88.74	18.71	99.02	14.01
- to fully understand a movie that only uses the language(s) you teach? [CK]	85.35	22.36	89.66	14.74
- have a conversation with a native speaker in the language(s) you teach? [CK]	84.13	21.73	94.88	15.64
- help your students learn at the first year level of the language(s) you teach? [TF]	81.68	15.39	90.54	14.14
- lower your students' anxiety about learning the language(s) you teach?[TF]	80.52	15.50	81.40	14.01
- motivate your students to learn about the language(s) you teach? [TF]	80.45	16.24	75.21	17.07
- foster your students' interest about learning the language(s) you teach? [TF]	79.54	16.59	71.40	15.13
- increase student achievement in your classes? [TF]	76.73	16.40	81.80	13.33
- help your students learn at highest levels of the language(s) you teach? [TF]	73.57	22.07	80.56	14.70

CK = Content Knowledge, TF = Teacher as Facilitator

Overall, means at the higher end of the scale were found for all of the items for both the initial and the second administration of the survey. Additionally, means were higher on the FLTES than the TSES (see Table 2). At the start of the teacher education program, the pre-service teachers indicated that they felt confident teaching languages with a mean range for the 10 items measuring language teaching efficacy from 90.38 to 73.57. The two highest rated items on the FLTES were perceived confidence in writing a personal letter in the target language (90.38), and reading and understanding a newspaper printed in another country in the target language(s) taught (88.74). The two lowest ratings were found among the items measuring the facilitation of instruction: (1) in-

crease student achievement in class ($M = 76.73$); and (2) the perceived ability to help students at the highest levels of the language being taught ($M = 73.57$). Turning to results from the TSES, Table 2 also shows that the means for the items ranged from 80.91 to 71.89 for the first administration of the survey. Inspection of these 12 items showed that participants rated their confidence higher on the items measuring efficacy in instructional strategy and lowest on the items measuring classroom management.

Table 2. Means and standard deviations for two administrations of the FL Teacher Efficacy Scale with results for survey items in descending order.

Teachers' Sense of Efficacy Scale	At Start of Teacher Education Program		One Year of Service	
	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>
How confident are you that you can . . .				
- provide an alternative explanation or example when students are confused? [IS]	80.91	14.84	95.22	17.07
- get students to believe they can do well on school work? [SE]	78.36	18.86	80.77	18.47
- assist families in helping their children do well in school? [SE]	76.30	20.70	85.39	17.75
- get children to follow classroom rules? [CM]	75.43	18.48	65.64	17.04
- craft good questions for your students? [IS]	75.33	16.86	90.44	18.49
- use a variety of assessment strategies? [IS]	75.18	18.38	94.86	16.96
- implement alternative strategies in your classroom? [IS]	75.14	16.33	81.12	17.42
- help your students value learning? [SE]	75.00	17.48	70.79	18.66
- establish a classroom management system with each group of students? [CM]	73.11	18.70	74.74	21.21
- calm a student who is disruptive or noisy? [CM]	72.97	18.80	65.55	18.63
- motivate students who show low interest in school work? [SE]	72.34	18.22	62.91	18.52
- control disruptive behavior in the classroom? [CM]	71.89	20.04	64.38	18.84

IS = Instructional Strategy, CM = Classroom Management, SE = Student Engagement

To answer the second research question about the participants' sense of efficacy one year after completing the teacher education program, means and standard deviations were calculated again for both surveys. After one year of teaching in schools, the mean range for the 10 items of the FLTES was wider, from 99.00 to 71.40, indicating a change of perceptions once on the job. Specifically, the participants' confidence in content knowledge increased in both the interpretive and presentational domains of the three modes of communication, with the highest gains in the areas of reading and speaking in the target language. On the Teacher as Facilitator factor, participants' confidence to help students learn at the first year level of the language learning as well as helping students learn at highest levels of language learning also increased. However, participants' confidence decreased for fostering student interest about learning the language and motivating students to learn about the target language.

As for changes in confidence over time on the TSES, the range of the means for these 12 items was also wider expanding from 95.22 to 62.91. Participants' confidence in their instructional strat-

egy increased. However, in the area of classroom management, participants' confidence decreased on three of the four items of the scale. On the factor that measures student engagement, participants' confidence decreased on the item asking about their ability to motivate students who show low interest in school work. Nevertheless, the participants' confidence to help students feel like they can do well on school work and to assist their students' families in helping them do well in school increased as they progressed from pre-service training to the end of the first year on the job.

In an effort to better understand these changes and to answer the third research question about the changes in perceived ability from the first to the second administration of the two surveys, each of the factors for both surveys for both administrations were examined statistically. Both instruments were subjected to confirmatory factor analysis, and each of the scale's subscales emerged as described by their creators in the literature. For detailed information about the psychometric properties of the instruments, see Swanson (2010a) and Tschannen-Moran and Woolfolk Hoy (2001).

Figure 1 shows the participants' perceptual changes of efficacy over time as related to the scales to measure efficacy. Overall, the participants' sense of efficacy increased in the areas of instructional strategy and content knowledge, 55.41 and 29.41 scale points respectively. However, teacher confidence in the area of classroom management decreased 23.09 scale points from the first to the second administration of the surveys. The two remaining factors, facilitating instruction in the target language and student engagement, were roughly unchanged. Inspection of the means of the participants' efficacy data by the demographic variables of age, ethnicity, gender, target language, and school context did not indicate any large mean differences in perceptions in teaching efficacy, which is consistent with the literature.

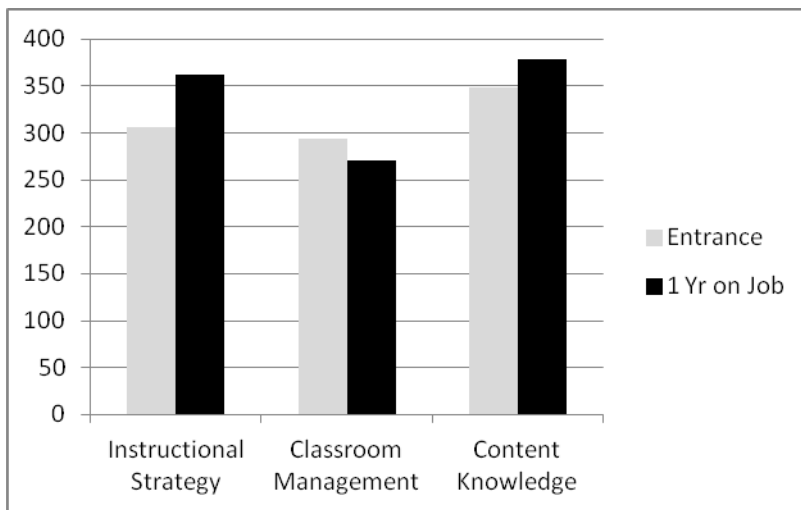


Fig. 1. Changes in perceptions of teacher efficacy

5 Discussion

The purpose of this research was to examine FL teachers' sense of teaching efficacy at two points during their careers. As noted earlier, the sample's demographics are similar to FL teachers working in the profession in terms of gender (National Center for Education Statistics, 2006; Swanson, 2010b). Statistical analysis of the two efficacy surveys supports the use of both the FLTES and TSES as valid and reliable instruments by which to measure teachers' sense of efficacy.

Even though the majority of the distribution of means was concentrated to the far extreme of the measurement scale, closer to 100, such a finding indicates that the participants, now in-service teachers, were highly confident in their abilities to teach languages when they first entered the

teacher education program at Georgia State University. These individuals expressed the most confidence in their ability to read and write in the target language initially and then continued to feel confident in the other areas measuring content knowledge. Conversely, after a year in the profession, the participants were least confident in their abilities (1) to motivate students to learn more about the target language and (2) to foster student interest in the target language. Such findings were not novel given *No Child Left Behind's* emphasis on content knowledge (Swanson, 2008). As a result, policy makers working on the new educational policy *Race to the Top* need to be reminded that basing teacher certification solely on content knowledge is not sufficient when training teachers. Clearly, while teacher proficiency in the target language is essential, teacher effectiveness and student achievement cannot be conceded at the expense of other aspects of teaching languages.

The intense focus to create highly qualified¹ teachers has been found to narrow the curriculum by prioritizing instruction in and resources to the core areas of science, math, and reading (Rosenbusch 2005; Rosenbusch & Jensen 2004). Such findings reflect a multitude of state and school district officials' opinion that the highly qualified classification over-emphasizes content knowledge (Center on Education Policy, 2007). Thus, the highly qualified definition needs to be broadened to include other important teacher characteristics and abilities such as learning more about how to motivate students and foster interest in learning languages. Such consideration is timely in the US presently, because the Obama administration is initiating the re-authorization process of the *Elementary and Secondary Education Act*.

In addition to the findings regarding content knowledge, the data show that people's perceptions of their abilities to teach languages increased. However, on most of the survey items that measured classroom management and student engagement, participants' confidence had decreased between the first and second administration of the efficacy surveys. The participants, regardless of the demographic variables examined in this study, had overestimated their confidence to control disruptive student behavior and calm disrupting students, motivate students, establish a classroom management plan, and help students value learning. Additionally, demographic variables such as race and gender do not play a role in one's self-efficacy beliefs. Again, such findings are not surprising given the emphasis on content knowledge during teacher training. Moreover, the findings are supported in the literature. Tschannen-Moran and Woolfolk Hoy (2007) reported that novice instructors tend to misjudge their abilities. Once they enter the profession, they experience a professional jolt when they realize that their earlier perceptions are not congruent with their current abilities. Therefore, more emphasis during teacher training needs to be placed on areas which are less commonly the focus, such as student engagement, which the field has only recently begun to address, and help teachers to develop strategies to cultivate it (Tschannen-Moran & Woolfolk Hoy, 2007)

6 Conclusions

Taken collectively, these findings call attention to the fundamental components of preparing and nurturing novice instructors. It is at this time when almost half of new teachers choose to quit the profession (Lambert, 2006; National Commission on Teaching and America's Future, 2002). It is during this demanding professional stage that novices find themselves most vulnerable (Smetthem, 2007) and they are constructing and reconstructing their professional identity (the values, practices, and purposes that constitute their vocational identities).

As discussed earlier, it is best when teachers slightly overestimate their actual teaching abilities, because they will take note of such deficiencies and persist when confronted with setbacks (Bandura, 1997). These individuals need opportunities to observe and experience success early in teacher-preparation programs as well as to develop strategies to motivate and engage students from the first day on the job. According to theory (Bandura, 1997), the proficiency of a performance creates a new mastery experience, which provides new information that will shape future efficacy beliefs. In the case of FL teachers, it can be hypothesized that greater efficacy leads to greater effort and persistence, leading to better performance, which in turn leads to greater efficacy. Howev-

er, the reverse is also true. A lower sense of efficacy leads language teachers to exert less effort and give up more easily, which leads to poor teaching outcomes, decreased efficacy, and ultimately to teachers leaving the profession. Thus, as pre-service and novice FL teachers begin to feel more and more efficacious in the different elements of teaching languages, teacher attrition may potentially decrease, which is a serious outcome given that FL teacher attrition rates have been found to be higher than in other content areas (Georgia Professional Standards Commission, 2008; Konanc, 1996).

Research shows that novice instructors can become disheartened with the gap between the standards they have set for themselves and their actual performance teaching (Tschannen-Moran et al., 1998). The findings presented here underscore the notion that teacher preparation programs need to provide more opportunities to deconstruct elements of the complex teaching tasks and allow novices to work on developing skill sets that match the workplace requirements. The results reported here have influenced the current program's curriculum by integrating more elements of student engagement and classroom management into coursework, seminars, and field experiences. In particular, a specific course of technology integration in the FL classroom was developed in order to help improve student engagement. Course content includes creating and integrating engaging digital tools during instruction such as video and emerging mobile technologies. Additionally, instructors of the two methods courses have now amplified the breadth and depth to the classroom management parts of those courses. Class content includes having in-service teachers serve as guest speakers in order to discuss best practices for managing large and diverse classes. Additionally, pre-service teachers have more opportunities to observe in classrooms earlier in the program. Both curricular additions are hoped to help improve pre-service mastery experiences and vicarious learning, two of the sources of self-efficacy, as well as teacher performance in the classroom.

7 Limitations and directions for future research

While this research highlights important implications for the profession, it does have its limitations. First, the sample size for this study was rather small. However, pre-service enrollments in FL teacher education programs nationally are relatively low, which is one of the reasons for the current FL teacher shortage. Perhaps collaboration among institutions of higher education in terms of longitudinal studies are warranted to study the differential effects as pre-service teachers move through programs and enter the profession. Such research would help reduce any Type 1 errors incurred by increasing the sample size. Second, the data were self-reported, which does not allow the participants' survey responses to be verified for accuracy. Thus, a mixed methods study design that incorporates an interview component may help researchers to further understand teachers' sense of efficacy as it develops. Nevertheless, despite such limitations, the researcher calls for more studies in the area of developing teachers' sense of efficacy. It would be informative to know more about the reasons for any overestimation of abilities and what elements, activities, and services offered by teacher education programs need to be examined in order to train teachers who can experience success early in the classroom and remain in the profession for years. Noting that almost half of the new teachers produced annually in the US leave the profession is not a solution to the teacher shortage. It is time to begin building and maintaining teacher capacity in earnest.

Note

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

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