Perils to Self-Efficacy Perceptions and Teacher-Preparation Quality among Special Education Intern Teachers

By Yeunjoo Lee, Philip P. Patterson, & Luis A. Vega

Researchers estimate that 30 percent of teachers are likely to leave the profession within three years (Plash & Piotrowski, 2006). First year special education teachers are two and half times more likely to leave their job than their peers in general education (Smith & Ingersoll, 2004). In California, the attrition rate is 36 percent for special education teachers with two or fewer years of experience, compared to 20 percent for general educators (Levine, Doorlag, & Godlewski, 1995). These dire statistics have a direct bearing on the preparation and retention of special education intern teachers, which are imperiled due to fiscal realities, limited resources, inadequate preparation programs, and increased workloads. How we prepare future teachers of special education is a key if we are to improve the status quo.

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Colleges and universities are expected to produce a diverse and flexible workforce, instill pedagogically sound and relevant practices, and provide high quality fieldwork experiences for their candidates. Teacher preparation programs are further expected to recruit

and aid in teacher retention, particularly in high needs areas such as mathematics, science, and special education. To meet these challenges, some states and institutions of higher education offer alternative credentialing programs that allow those already possessing baccalaureate degrees to be employed by school districts while completing credential requirements (Hawk & Schmidt, 2005). Meeting these challenges often rests on the preparation quality candidate teachers receive and their ability to put it into practice. Whether pathways to credentialing are traditional or alternative, teacher preparation programs must examine a variety of outcome variables associated with effective teacher performance. These can include objective indicators on teaching programs, practices, and policies, and more subjective indicators such as teacher's self-efficacy or perceptions of control (Bandura, 1977, 1997). Because a lack of teacher self-efficacy can undermine even the best of teacher education, it is imperative that we assess the types of perils that can arise in its absence. This is particularly important given the continued limited-resource environments and other threats to an already over-taxed education infrastructure (Nieto, 2005).

Teacher self-efficacy has been widely researched since it was first introduced in 1977. The concept is based on Bandura's (1977, 1982, 1984, 1997) cognitive theory of social learning and refers to the conviction that a teacher can produce desired outcomes in his/her students. In an attempt to measure teacher self-efficacy, Gibson and Dembo (1984) developed a 30-item scale, which was based on the two scales from a Rand study (Armor et al., 1976). The original two items in the Rand study were expanded to improve the validity and reliability in Gibson and Dembo's scale (Hoy & Spero, 2005). Both scales yielded two factors in self-efficacy; personal teaching efficacy (PTE, α=.78, *%var.* 18%) and general teaching efficacy (GTE, α=.75, *%var.* 10%). PTE is defined as the levels of teacher confidence in their ability to promote students' learning. GTE refers to the levels of teacher confidence about the power of teaching (Gibson & Dembo). Because PTE is most associated with the belief of influencing behaviors as a result of one's actions, rather than a more generalized belief implied by GTE, this study follows previous research and primarily focuses on the former dimension (Bandura, 1997; Gibson & Dembo, 1984).

Ample research supports the PTE scale, which has been linked as a causal factor to: teacher resiliency (Yost, 2006); teacher effectiveness and students' achievement (Soto & Goetz, 1998); the use of recommended practices and student's academic outcomes (Rose, 1995; Soto & Goetz, 1998); and implementing new innovative teaching strategies (Ghaith & Yaghi, 1997). Gibson and Dembo (1984) reported a close relationship between teacher self-efficacy and teacher feedback behaviors. In addition, they showed that teachers with high levels of self-efficacy engaged in longer periods of instructional time than those with lower levels. In comparing special education teachers with high levels of PTE to those with low levels, the former more frequently met their performance goals (Rose, 1995). Similarly, these teachers with high PTE had higher expectations and goals for their students. Teachers with high levels of PTE were confident about achieving students' goals and tended

to motivate students more than teachers with a low PTE. They were less concerned about their teaching and more likely to be problem solvers, taking charge of their own problems (Ghaith & Shaaban, 1999). Thus, current research shows marked differences in teachers who have high-versus low-levels of self-efficacy.

Jennett and her colleagues (2003) further examined the level of teacher self-efficacy and the commitment to a teaching philosophy and instructional methods in two groups of special education teachers: one group who used Applied Behavior Analysis and the other who used TEACCH (Treatment and Education of Autistic and Related Communication-Handicapped Children). The two groups showed a significant relationship between the levels of PTE and a commitment to using a teaching philosophy. The authors' findings suggest that teacher preparation programs and school districts provide a strong theoretical background to teachers, which are likely to produce a higher level of PTE. Furthermore, Hastings and Brown (2002) have found that special education teachers with low levels of self-efficacy perceived that they did not successfully manage students' challenging behaviors, and those teachers were more likely to have negative emotional reactions to those behaviors. Consequently, one major peril arising from low levels of self-efficacy can be an increased likelihood for teacher burnout and attrition.

Teacher burnout rates are a serious concern in special education because they contribute to the shortage of special education teachers. Although definitions and results from attrition studies vary, special educators are more likely to exit the profession at higher rates than do general education teachers (Boe, Bobbitt, & Cook, 1997; Thornton, Peltier, & Medina, 2007). Beginning special educators are particularly at-risk for leaving (Brownell, Sindelar, Bishop, Langley, & Seo, 2002). Also, the attrition rate of special education teachers transferring to general education is 10 times higher than that of general education teachers transferring to special education (Muller & Markowitz, 2003). The work demands of special education teachers necessitate extra paperwork, additional record keeping, specialized behavior management skills, as well as thorough knowledge of content areas. In addition, special educators are less likely to have colleagues at their schools available for mentoring and collaborative relationships (Brownell et al., 2002). Considering the working conditions and requirements, the high attrition and burnout rates of special educators may not be surprising (Wu & Short, 1996).

To reduce teacher shortages, an intern credential has been introduced as a means of alternate certification in California. Individuals who meet the requirement of subject matter competency are eligible for an intern credential, allowing them to teach students in special education programs for two years while completing their coursework requirements for certification. Often, intern teachers begin their employment with limited experience, knowledge, and skills in special education. In the 2004/2005 school year, there were a total of 5,232 intern teachers in California public schools (Education Data Partnership, 2009). The number of intern teachers in the 2007/2008 school year increased to 10,553, representing 3.3 percent of working

teachers in California public schools (Education Data Partnership, 2009). Special education intern teachers are particularly vulnerable to attrition because of their stressful workloads, scant experience, and limited content knowledge. Therefore, it is critical to support special education intern teachers by reducing stress and improving their job satisfaction and retention rates.

This study focused on perils to special education intern teachers' perceived self-efficacy and the quality of support they received, accounting for the influence of demographics, levels of paperwork, content knowledge, support from parents and school districts, and teacher preparation programs. Specifically, we examine correlates (perils) of intern teachers' levels of perceived teaching efficacy with access to teaching resources, personal background, competency knowledge, and perceived support—from school districts, from teacher preparation programs, and from pupils' parents.

Method

Survey Development

A survey was developed to collect information on the research questions. Survey items included six multiple-choice, four open-ended, and 61 Likert-scale items. Five multiple choice and three open-ended items asked for special education intern teachers' and their students' demographic backgrounds (e.g., types of disability or age). The Likert-style items included the following: (a) the participants' perceptions on teacher efficacy, (b) their perceived level of knowledge and skills (e.g., behavior management, content knowledge, and assessment), (c) their perceived level of support from various sources, and (d) their perceptions on various issues in special education. Items on teacher self-efficacy were modified from the teacher efficacy scale by Gibson and Dembo (1984). Items on special education-related knowledge were developed based on Council for Exceptional Children (CEC) knowledge and skill standards for all entry level special education teachers for students with exceptionalities (CEC, 2003).

Sampling Procedure

Participants were special education teachers (N=154) possessing intern credentials in a teacher preparation program offered by a medium-size state university in California. An intern credential is given to inservice teachers who meet multiple requirements, including subject matter competency and a baccalaureate degree. Intern teachers are typically new to the field and hired by school districts as teachers while they are enrolled in a teacher preparation program. The participants in this study were enrolled in a base-campus (N=84) and in a satellite-campus (N=70) of the state university, which serves students in five counties in central California. The satellite campus is located 90 miles south of the base campus. The service area of the university is characterized as having California's lowest median income levels,

highest unemployment levels, and low ranks on other key socioeconomic factors (i.e., dropout rates, drug abuse, and levels of education) (Kern County Network for Children, 2008).

The sample consisted of 154 intern teachers whose names and addresses were obtained from the university. A postcard was mailed to the potential participants informing them of the delivery of the upcoming survey and requesting their participation. One week after the postcards were mailed, a packet was sent to each intern teacher in the sample. The packet included a cover letter, a consent signature form, a survey, a raffle ticket (i.e., a $20 gift card for a retail store), and a stamped, self-addressed return envelope. Once respondents had agreed to participate in the study, they were requested to return the consent signature form and the completed survey in a return-envelope. As an alternative to the hard-copy survey, respondents were informed that the survey was also available on the World Wide Web and were encouraged to submit the survey on the internet. Three weeks after the survey-packet had been mailed, a reminder letter was sent to non-respondents to encourage them to complete and return the survey.

Results

Of the 154 questionnaires, five survey packets were returned because of incomplete addresses. A total of eight surveys were completed online, and 84 hard copy surveys were returned. The data of the 92 valid responses (32 from the base and 60 from the satellite campus, 61.7% overall response rate) were coded into Statistical Package for the Social Sciences software. Results of the analyses are discussed below.

Demographic Information and Related Information

Among the respondents, 62 students (67.4%) were pursuing a mild/moderate educational specialist credential, and 29 (31.5%) were working toward a moderate/severe educational specialist credential. The respondents consisted of 60 Whites (65.2%), 16 Hispanics (17.4%), 10 African Americans (10.9%), three Asian and Pacific Islanders (3.3%), and one American Indian (1.1%). Two respondents indicated two or more of the ethnicity categories. The ages of all respondents ranged from 23 to 65 with an average age of 39.6 (SD=11.18). More detailed information on the participants' demographics is shown in Table 1.

Respondents had an average of 22 students in their classroom caseload, which ranged from six to 130 students. Of all the respondents, 29.4 percent had 25 or more students on their caseloads. Two of the most cited disabilities in the respondents' classrooms were students with learning disabilities (66 teachers, 71.7%) and Autism (49 teachers, 53.8%). Forty-seven respondents (51.1%) had students with mild and moderate mental retardation, and thirty-eight respondents (41.8%) had students with emotional behavioral disorders in their classrooms.

Special Education Intern Teachers' Levels of Perceived Teaching Efficacy and Correlates

The respondents (*N*=92) reported higher levels of PTE (*M*=2.2, *SD*=0.63) than GTE (*M*=3.56, *SD*=0.89) on the Likert scale items that ranged from 1 (*strongly agree*) to 6 (*strongly disagree*). The two factors were independent, and their internal consistencies were .77 for GTE and .79 for PTE. The respondents showed a high level of confidence (*M*=1.73, *SD*=0.48) in their knowledge and skills on the selected CEC competencies (1=*strongly agree* to 6=*strongly disagree*). Appendix A shows the means and standard deviations of the Likert scale items.

When the special education intern teachers were asked for their perceptions of support from various sources (1=*nonexistent* to 7=*excellent*), they reported the highest level of support from university intern supervisors (*M*=5.47, *SD*=1.57), followed by university intern programs (*M*=5.42, *SD*=1.48). Unfortunately, the respondents gave low ratings (*M*=3.94, *SD*=1.81) to the school district as a source of support. The results also showed that the intern teachers perceived a low level

Table 1.
Demographic Characteristics of the Respondents

	N (%)
Currently Holding Credentials (*N*=92)	
None	66 (71.7%)
Multiple Subject Preliminary (elementary)	4 (4.3%)
Multiple Subject Professional (elementary)	11 (12%)
Single Subject Preliminary (secondary)	2 (2.2%)
Single Subject Professional (secondary)	3 (3.3%)
Adult Education	2 (2.2%)
Two or more credentials	4 (4.4%)
Years of Experience (*N*=89, *M*=2.74, *SD*=1.69)	
0-2 yrs	49 (55.1%)
2.1-4 yrs	24 (26.9%)
4.1-6 yrs	13 (14.6%)
Over 6yrs	6 (3.3%)
Gender (*N*=92)	
Female	64 (69.6%)
Male	28 (30.4%)
Age (*N*=86, *M*=39.63, *SD*=11.18)	
20-25 years old	5 (5.8%)
26-30	16 (18.6%)
31-35	12 (14%)
36-40	15 (17.4%)
41-45	11 (12.8%)
46-50	11 (12.8%)
Over 51	16 (18.6%)

of support from students' families, which was closely related to the levels of PTE and their perceived competency in knowledge and skills. Furthermore, a correlation analysis revealed that the PTE was closely related to the level of supports from school districts and mentor teachers (e.g., intern coaches). The level of confidence in their knowledge and skills is highly related to the perceived support from all sources. Table 2 displays the relationships among the levels of support, teacher self-efficacy, content knowledge, and skills.

Major issues in special education were examined with respect to the intern teachers' *perceptions* (i.e., To what extent do you see the following in your professional life as a special education teacher?) and *sense of control* over the issues (i.e., Please assess the level of control you have over the following issues.). Respondents reported high levels of satisfaction with their professional lives as special education teachers (i.e., career satisfaction) in terms of their *perception* (*M*=5.64*, SD*=1.30) and *sense of control* (*M*=5.64, *SD*=1.30). (Please see Table 3 for details). Parental support was reported as lacking as was intern teacher's *sense of control* over the same issue. The respondents perceived relatively high administrative support (*M*=4.75, *SD*=1.82), however, their sense of control over it was lower (*M*=3.75, *SD*=1.97). Intern teachers expressed the lowest level of *perception* about appropriate class size and also the lowest level of *sense* of control over the same issue.

When asked about challenges to be an effective teacher, the respondents addressed three major categories: working conditions, support related, and student related issues. Working environment issues included lack of resources, extreme workload, and lack of instructional and planning time. Support related and student related issues were also frequently addressed by intern teachers. Table 4 provides detailed information on their responses.

The results from a correlation analysis revealed that the levels of PTE are

Table 2.
Mean and Standard Deviation of Perceived Supports and Correlation Matrix for Efficacy and Related Factors (*N*=92).

Sources of Support	*M*	*SD*	PTE	GTE	[a]CEC
School Administrator	4.76	1.75	.18	-.08	.26*
School District	3.94	1.81	.41**	.01	.35**
Mentor Teacher	5.15	1.79	.36**	.04	.43**
Other Special Education teachers	5.35	1.71	.20	.02	.21*
Students' Families	3.79	1.50	.33**	.15	.30**
Intern Supervisor	5.47	1.57	.19	.00	.31**
Intern Program	5.42	1.47	.09	.09	.39**

[a] CEC=perceived knowledge and skills on selected CEC competencies
* $p<0.05$
** $p<0.01$

positively related to the control index, the perception index, the perceived support, and the confidence levels in skill and knowledge (i.e., CEC competencies) as a special education teacher. The highest relationships are among PTE and CEC competencies ($r(92)=.61$, $p<0.01$) and the perceived support level and Perception Index ($r(92)=.62$, $p<0.01$). Interestingly, the respondents' levels of GTE were negatively correlated with the Perception and the Control Indices, which implies

Table 3.
Mean and Standard Deviation of Perception and Sense of Control over the Major Issues.

	[a]Perception		[b]Sense of Control	
	M	*SD*	*M*	*SD*
Career Satisfaction (*N*=92)	5.64	1.30	5.64	1.30
Professional Training (*N*=92)	4.75	1.66	4.75	1.66
Student Discipline (*N*=92)	4.74	1.55	5.52	1.24
Administrative support (*N*=92)	4.73	1.82	3.75	1.97
Classroom Supplies (*N*=92)	3.92	1.66	3.85	1.74
Technology in the classroom (*N*=92)	3.77	1.80	3.36	1.66
Appropriate workload (*N*=91)	3.74	1.89	3.38	2.01
Classroom curriculum availability (*N*=92)	3.73	1.80	3.75	1.80
Parental support (*N*=92)	3.67	1.57	3.53	1.46
Salary Satisfaction (*N*=92)	3.38	1.96	3.38	1.96
Appropriate class size (*N*=92)	2.51	1.78	2.51	1.78

[a] Perception ranged from 1 (lacking) to 7 (possessing).
[b] Sense of Control ranged from 1 (no control) to 7 (high control).

Table 4.
Perceived Challenges that Affect the Level of Teaching Effectiveness.

Category	Descriptions	*N* (%)
Working conditions	Lack of Resources (curriculum, technology, supplies, and budget)	47 (19.5%)
	Workload (class size, variety of student needs, split shift, numbers of subjects to teach, paperwork)	37 (15.4%)
	Lack of Instructional and Planning Time	28 (11.6%)
	Ineffective Paraprofessionals	9 (3.7%)
Supports related	Lack of Parental Support Lack of District and/or Administrative Support	27 (11.2%)
Student related	Student Discipline Problems General Education Related Issues	17 (7.0%)
Other	Lack of knowledge	8 (3%)

that the respondents who have a strong belief in teaching (GTE) perceive a lack of control and a lack of resources. Table 5 shows the mean, standard deviations, and correlation coefficients of these indices.

Discussion

The results confirm that GTE and PTE were independent factors and unrelated to each other. PTE and GTE were shown to be strong correlates of special education intern teachers' confidence in knowledge and skills and closely related to their sense of control over the major issues. Correlation analyses showed that PTE and GTE are not related to any of the demographics of the intern teachers, including gender, age, years of experience, and types of credentials held. Flores, Desjean-Perrotta, and Steinmetz (2004) have reported that there is a significant relationship between the years of teaching experience (*M*=4.30) and PTE, but the current investigation contradicted their finding. One reason may be the limited years of experience that the participants have in this current study (*M*=2.74).

The relationship between the quality of support and the level of PTE was statistically significant for intern teachers. This result is supported by the findings from previous studies that involved general education teachers (Hall, Burley, Villeme, & Brockmeier, 1992; Hoy & Spero, 2005). Teaching context in the form of lack of support from school districts, lack of resources (e.g., curriculum, supplies, and technology), and heavy workloads present grave perils to teachers' self-efficacy and can weaken the ultimate success of special education teachers—as implied by the results in this study. The provision of appropriate resources affords special education intern teachers a sense of freedom and control over their classroom curriculum. The sense of freedom contributes to their level of personal self-efficacy, as shown by their strong association in this study.

Tschannen-Moran and Hoy (2007) argue that frustrations (i.e., lack of control) over class sizes and lack of support, including limited parental support, create nega-

Table 5.
Means, Standard Deviations, and Correlation Matrix for Efficacy and CEC Competencies (*N*=92).

Variables	*M*	*SD*	1	2	3	4	5	6
1. PTE	2.2	0.63	---					
2. GTE	3.56	0.89	.01	---				
3. CEC	1.73	0.48	.61**	.29**	---			
4. Quality of Support	5.01	1.07	.36**	-.11	.48**	---		
5. Perception Index	4.3	1.08	.37**	-.29**	.41**	.62**	---	
6. Control Index	3.95	1.14	.32**	-.32**	.38**	.49**	.72**	---

* $p<0.05$
** $p<0.01$

tive perceptions of their school culture, which can lead to lower self-efficacy. Brought about by federal legislation, there is an emphasis within the field upon student test scores and the qualifications of teachers (Kennedy, 2008). Low levels of self-efficacy combined with increased stress brought about by the emphasis on test scores can contribute to teacher burnout and high rates of attrition for special education intern teachers. To increase levels of self-efficacy and reduce stress, school districts and teacher education programs must find creative ways to support intern teachers.

Bandura (1997) suggested that self-efficacy is developed through mastery experiences, physiological and emotional states, vicarious experiences, and social persuasion. Unlike preservice teachers in traditional teaching programs, special education intern teachers do not have opportunities to receive extensive supervision from master teachers (Flores et al., 2004). They have student teaching experience in their own classrooms, with periodic visits from mentor teachers and university supervisors. Limited opportunities ensue to: observe a master teacher; practice their skills under a master teacher's supervision, and receive frequent feedbacks from a master teacher. To alleviate these unique conditions, school districts can assist intern teachers to enhance their self-efficacy by providing more opportunities (e.g., providing a substitute teacher) to observe model classrooms and teachers. Furthermore, school districts need to provide more positive interactions between intern teachers and mentor teachers. At the same time, mentor teachers should be encouraged and rewarded for increased visits and interaction with intern teachers. Support from mentor and/or master teachers enhance teachers' resiliency and positive work experience, improving teachers' retention rate (Gehrke & McCoy, 2007). Besides mentor teachers, administrators, parents, and staff are also an important part of new teachers' daily interactions. Supportive and healthy relationships with them strengthen new teachers' self-efficacy (Tschannen-Moran & Hoy, 2007).

Additional formal supports can include professional development workshops, longer planning periods, and provision of classroom resources by local school districts. Reduced class size and the provision of effective paraprofessionals are also recommended for novice teachers. Another important source of support is from parents or caregivers (Garcia, 2004). Research shows parental support is a predictor of teacher self-efficacy and their perceived knowledge (Roll-Pettersson, 2008). The findings emphasize building a successful communication channel between home and school. Local schools and teachers should actively build strong bridges by providing family friendly school environments. In addition, teacher preparation programs and school districts should assist intern teachers to experience and build successful working relationships with families (Garcia), which also improve the teaching context.

As most special education intern teachers go into the field of teaching with limited exposure to students with disabilities and with minimal teaching experience, the role of teacher preparation programs becomes more critical. Teachers' self-confidence in skills and knowledge as special education teachers seems to be highly related to their perceived teaching efficacy. The results of this study under-

score the importance of well-designed and effective teacher education programs that provide a high quality education.

Considering the unique needs of intern teachers, university instructors are encouraged to present content knowledge through carefully balanced pedagogies. This may entail offering course content that meets the most immediate needs of intern teachers (e.g., behavior management) early on in the university's program. Furthermore, university programs need to assess intern teachers' knowledge and instructional experience in order to deliver instruction that closes gaps while broadening and enhancing teaching skills. To address the need for intern teachers to observe other teachers and classrooms, courses should include assignments that involve field-work components. This will motivate the intern teachers to reflect on their own teaching practices and to apply their new learning skills to real settings.

Research supports using myriad instructional approaches for teacher preparation, including but not limited to lecture, discussions, modeling, case studies, cooperative learning groups (Mitchem et al., 2009; Rieg & Wilson, 2009) and anchored instruction through multimedia (Ayres, 2008). Instructors need to be resourceful by taking advantages of free websites and multimedia sources that are carefully developed to enhance universities' own curricula (e.g., IRIS center; http://www.iriscenter.com). Teacher preparation programs must ensure that university classes offer meaningful, realistic, and challenging experiences for intern teachers if they are to deliver effective and efficient instruction to students.

In addition to content knowledge and teaching pedagogy, current research suggests that teachers' problem solving skills should be emphasized (Soto & Goetz, 1998). University field supervisors are in a position where they can assist intern teachers by reinforcing good practices and providing suggestions. The supervisors will need to have close contacts with district mentors to provide adequate support. University instructors should put an effort to incorporate effective teaching strategies to meet the unique needs of teacher candidates in alternative programs. Intern teachers are the product of collaboration between a teacher preparation program and a local school district. A truly successful collaboration effort should be sought to produce good quality teachers and an improved teaching context.

A continued coherent model of teacher preparation and support is needed in order for new intern teachers to achieve a high level of teaching performance. While teacher preparation programs and districts may have the best intentions, funding limitations may preempt their efforts. Many school districts may offer professional development activities; however, the quality of preparation cannot fully be assured. Also, increased workloads and class sizes have decreased time devoted to faculty development at school sites. The sustainability of quality professional development and support are obviously insufficient if one examines burnout and attrition rates (Brouwer & Tomic, 2000). Therefore, teacher preparation programs must be creative and innovative in educating teachers to be pedagogically proficient, technologically savvy, and be able to pursue networks with peer and expert support.

This is particularly important if high levels of perceive teaching efficacy are to be developed and maintained—a crucial pillar of effective teaching.

This study uniquely examines special education intern teachers' perceived levels of teaching efficacy and the important roles of teaching resources, teachers' backgrounds, and support from school districts, teacher preparation programs, and pupils' parents. Future research should include the direct observation of the special education teachers to examine how their levels of self-efficacy influence their teaching styles and students' learning. Given the limitations of correlational research and self-reports, other methodological approaches are needed. Longitudinal studies can be done with intern teachers to examine levels of teacher self-efficacy change over time and associated influences. Interviews and observations are another methodological source that can provide qualitatively detailed research findings of the experiences and perceptions of intern teachers.

Finally, other sources contributing to teacher self-efficacy should be examined. Years of experience alone cannot explain teachers' levels of self-efficacy, given that our novice, intern teachers displayed high levels of PTE. Other sources that appeared to make a difference in this study include strong support from the school systems and individual differences, such as perceptions and a personal sense of control. Identifying the various sources of variance contributing to a high teaching self-efficacy can further elucidate the role(s) of this important construct and allow for more targeted applications, such as increasing the retention rate of special education teachers and reducing burnout rates.

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Appendix A

Item	M	SD
1. [a] When a student does better than usual, many times it is because I exert a little extra effort.	2.37	1.26
2. [b] The hours in my class have little influence on students compared to the influence of their home environment.	3.80	1.44
3. [b] The amount a student can learn is primarily related to family background.	4.08	1.34
4. [b] If students are not disciplined at home, they are not likely to accept any discipline.	3.41	1.58
5. I have enough training to deal with almost any learning problem.	3.29	1.35
6. [a] When a student is having difficulty with an assignment, I am usually able to adjust it to his/her level.	1.61	0.78
7. [a] When a student gets a better grade/performance than he/she usually gets, it is usually because I found better ways of teaching that student.	2.36	0.97

Item	M	SD
8. [a] When I really try, I can get through to most difficult students.	2.23	1.06
9. [b] A teacher is very limited in what he/she can achieve because a student's home environment largely influences on his/her achievement.	3.63	1.36
10. [a] If a student masters a new concept quickly, this might be because I knew the necessary steps in teaching that concept.	2.48	0.98
11. [b] If parents would do more for their children, I could do more.	2.73	1.46
12. [a] If a student did not remember information I gave in a previous lesson, I would know how to increase his/her retention in the next lesson.	2.60	0.96
13. [b] The influences of a student's home experiences can be overcome by good teaching.	3.15	1.17
14. [a] If a student in my class becomes disruptive and noisy, I feel assured that I know some techniques to redirect him/her quickly.	1.91	0.92
15. [b] Even a teacher with good teaching abilities may not reach many students.	3.51	1.36
16. [a] If one of my students could not do a class assignment, I would be able to accurately assess whether the assignment was at the correct level of difficulty.	1.96	0.92
17. [b] When it comes right down to it, a teacher really can't do much because most of a student's motivation and performance depends on his or her home environment.	4.62	1.10
18. My teacher-training program has given me the necessary skills to be an effective teacher.	2.29	1.05
19. I can select and adapt instructional strategies and materials according to my students' learning needs. (CEC Standard #4)	1.77	0.81
20. I use research-supported methods for academic and nonacademic instruction. (CEC standard #4)	1.99	0.79
21. I can use instructional methods to strengthen and compensate for my students' cognitive deficits. (CEC standard #4)	1.98	0.83
22. I provide learning environments to my students that encourage active participation in individual and group activities. (CEC standard #5)	1.41	0.60
23. I am comfortable using appropriate technologies to support my students' learning. (CEC standard #5)	1.90	0.99

Item	M	SD
24. I write effective individualized educational programs for my students. (CEC standard #7)	1.71	0.64
25. I successfully modify the learning environment to manage behaviors. (CEC standard #5)	1.77	0.71
26. I use effective and varied behavior management strategies. (CEC standard #5)	1.75	0.75
27. I can use assessment information in making instructional decisions for my students' learning needs. (CEC standard #8)	1.60	0.66
28. I communicate and work effectively with paraprofessionals. (CEC standard #10)	1.49	0.79
29. I regularly monitor the progress of students. (CEC standard #8)	1.50	0.70
30. I assist families in identifying their concerns and priorities. (CEC standard #10)	1.95	0.88
31. I collaborate with families and other professionals in assessment of individuals with exceptional learning needs. (CEC standard #10)	1.63	0.75
32. I use instructional time effectively. (CEC standard #7)	1.65	0.69

1=strongly agree, 6=strongly disagree

[a] Item that measures PTE (Gibson & Dembo, 1984)

[b] Item that measures GTE (Gibson & Dembo, 1984)