

**The Impact of Knowledge and Experience: Preservice Teachers' Perceived Sense of
Efficacy and Perceptions of Inclusion of Students with Disabilities**

Patricia Huskin, Marie-Anne Mundy and Lori Kupczynski

Texas A&M University-Kingsville

Abstract

Mandates for inclusive education under IDEA and accountability mandates under NCLB have become an impetus for change in curriculum and instruction, and educator preparation programs. Teacher training institutions have a professional responsibility to ensure inservice and preservice teachers are well-prepared for the challenges of inclusion. Preservice teachers enrolled in a one-semester introductory special education course with 15 hours of required field observations with a mentor teacher at a South Texas college were asked to voluntarily participate in a Pre-/Post-Test survey of Demographic Information, an Attitudes Questionnaire, the Preservice Inclusion Survey, and the short version of the Teacher Sense of Efficacy Scale. These were combined into one single survey instrument and delivered online. Pre- and post- matches were evaluated. For attitudes towards inclusive education, results indicated preservice teachers were more likely to have positive attitudes toward inclusive education and more likely to believe all students deserve an appropriate education in the general classroom. For teacher efficacy, results suggest preservice teachers were more likely to believe in a teacher's ability to positively impact student learning despite other factors. When presented with difficult students, results suggest confidence decreased. Finally, when presented with teaching multiple students with differing disabilities in the general education classroom, preservice teachers were less likely to be pleased with the situation, but more likely to feel confident and prepared for the expected challenges. Recommendations are made for course design and instructional strategies; degree requirements for preservice teacher preparation programs; and, integration of inclusion and differentiation strategies across teacher preparation programs.

Key words: preservice teachers, inclusion, efficacy, attitudes, teacher preparation

The Impact of Knowledge and Experience: Preservice Teachers' Perceived Sense of Efficacy and Perceptions of Inclusion of Students with Disabilities

Introduction

Together, the combined effects of the inclusive spirit of the *Individuals with Disabilities Education Act* (IDEA) and the accountability measures of the *No Child Left Behind Act* (NCLB) have changed the way that special education is conducted in the United States as almost every general educator is increasingly called upon to play a hands-on role in the education of students with disabilities. However, many general educators have been left feeling unprepared to adequately serve student with disabilities as they often lack of knowledge about the characteristics of such students and have inadequate preparation in meeting the needs of these students. As such, many general educators feel the inclusive classroom is not an adequate venue for special education service delivery.

Inclusion has become the norm, not the exception in today's classrooms and general education preservice teachers increasingly find themselves required to know how to meet the complex needs of students with diverse learning styles and abilities. Many preservice teachers have little to no experience in working with students with disabilities and subsequently feel inadequately prepared to meet the needs of their students in their future classrooms. This limited or inadequate experience and preparation increases anxiety and fear from students with disabilities and the teachers assigned to teach them (Everhart, 2009; D'Alonzo, Giordano, & VanLeeuwen, 1997).

In order to appropriately meet the challenges presented by the inclusive classroom, general educators must possess critical skills, such as those necessary for adapting instruction for students with disabilities, managing challenging behavior of students with and without

disabilities, and being able to collaborate with special educators and related services personnel. Unfortunately, many current inservice teachers completed their professional preparation during a time of minimal inclusion resulting in little to no focus on the necessary skills, as well as few opportunities for field experience. These same significant gaps exist even in teachers who have more recently prepared as educators.

The inclusion mandates under IDEA and the accountability mandates under NCLB have become an impetus for change, not only in curriculum and instruction, but in the roles of educator preparation programs. Teacher training institutions have a professional responsibility to ensure that all teacher educators, both inservice and preservice teachers are well-prepared to meet the challenges of inclusion in the face of NCLB and IDEA requirements (Harvey, Yssel, Bauserman, & Merbler, 2010).

As the research indicates that the teacher is the most important element affecting student learning in the classroom, general educator preparation for assisting with special education service delivery in the inclusion setting becomes increasingly important (Marzano, 2003). Specifically, it has been noted that the attitudes and expectations, especially towards inclusive education, of teachers have a direct effect on the academic performance of the students in the inclusive classroom (McLesky and Waldron, 2007). It has been documented that university coursework and training positively affect the attitudes of preservice teachers towards inclusive education. Additionally, the attitudes and beliefs that teachers form about their abilities to work with students with disability are formed during preservice and are unlikely to change over their career, making preservice training of the utmost importance. Furthermore, the attitudes and abilities of preservice teachers with regards to meeting the needs of students with disabilities should be appraised throughout their teacher preparation program, and not only in one or two

courses to ensure these future teachers are educated in accepting that all students deserve the opportunity to succeed (Taylor & Ringlaben, 2012).

Purpose

The purpose of this study was to examine whether preservice teachers' knowledge, attitudes and perceived abilities (i.e., their sense of efficacy) toward students with disabilities was influenced by their enrollment in a one-semester introductory special education course with a required 15 hours of field observations with a mentor teacher, and demographic variables. Students were asked to voluntarily participate in a Pre-Test and Post-Test survey of Demographic Information, an Attitudes Questionnaire (AQ), the Preservice Inclusion Survey (PSIS), and the short version of the Teacher Sense of Efficacy Scale (TSES). All of these were combined into one single survey instrument and delivered online.

Literature Review

On December 3, 2004 President George W. Bush signed the reauthorization of the *Individuals with Disabilities Improvement Act of 2004*. This long-awaited action continued the original *Education for All Handicapped Children Act* passed in 1975, reauthorized in 1997 and 2004, as the *Individuals with Disabilities Education Act* (IDEA). Its primary purpose remains unchanged – to guarantee every child with a disability a free, appropriate public education in the least restrictive environment, and specifically, "to be involved in and make progress in the general curriculum" (34 C.F.R. §300.320(a)(2)(i)(A)). IDEA mandates that the primary educational considerations for the instructional setting of students with disabilities should be in the general education classroom, therefore providing access to the general curriculum. Additionally, a decade and a half ago, the reauthorization of the *Elementary and Secondary Education Act* (ESEA), known as the *No Child Left Behind Act* (NCLB), strived "to ensure that

all children have a fair, equal, and significant opportunity to obtain a high-quality education and reach or exceed minimum proficiency on challenging state academic achievement standards and state academic assessments" (Sec. 1001, Part A, Title I of ESEA; 20 U.S.C. 6301). The No Child Left Behind Act (NCLB, 2001) mandates that all students, including those with disabilities, be educated by highly qualified (HQ) teachers and make adequate yearly progress (AYP) on challenging state academic standards and assessments in the general curriculum.

Including all students in the general education setting has new importance given the accountability mandates under NCLB. Special education teachers and general education teachers alike face tremendous pressures to ensure that every student within their classrooms meets the same rigorous academic standards and achieve equal academic outcomes. Today, almost every general educator plays a direct role in the instruction of students with disabilities. The U.S. Department of Education (2011) reports that over half (56.8%) of all students with disabilities are included in the general education setting for 80% of the instructional day. The Study of Personnel Needs in Special Education (SPeNSE) conducted in 2001 surveyed nearly 9,000 personnel serving students with disabilities and factors associated with workforce quality. According to this survey, 96% of general educators currently teach students with disabilities or report having done so in the past; general educators have an average of 3.5 special education students assigned to their caseload; and the most common disabilities represented on general educators' caseloads are specific learning disabilities, speech or language impairments, and emotional disturbance. However, 1 in 10 general educators reported caseloads that included students with other health impairments, intellectual disabilities, hearing impairments, or developmental delay. The direct role of general education teachers in providing a quality education to students with disabilities places an increased demand for general educators to have

both knowledge and understanding of all 13 disability categories as defined by IDEA, instructional and behavioral strategies to address these disabilities, as well as effective and appropriate accommodations and modifications provided to students with disabilities. In addition to their content knowledge, general educators must have knowledge of inclusive instructional practices, develop skills in working collaboratively with administrators, other educators and related service personnel, and parents, as well as develop effective leadership skills needed for the multifaceted demands of inclusive classrooms (Bowlin, 2012).

The President's Commission on Excellence in Special Education (2002) recommended that "teachers in general education learn about special education" (p. 55). This impetus promotes policies and practices to improve the educational performance of students with disabilities in inclusive settings. Although general education teachers play an increasingly direct role in the instruction of students with disabilities, they often feel unprepared to meet the demands placed on them (Brownell, Adams, Sindelar, Waldron, & Vanhover, 2006). General education teachers' acceptance of students with disabilities is hindered by their lack of knowledge about the characteristics of such students and inadequate preparation in meeting the needs of these students (Cook, 2002). In a study by Coates (1989), respondents felt that they had been inadequately prepared to teach students with disabilities and considered the general education classroom as a non-effective setting for special education service delivery. They also believed that students with mild disabilities could not be effectively educated in general education classrooms, even with instructional supports. Additionally, general educator participants believed that special education services (instruction in a resource setting) should be extended to meet the needs of students who were not eligible for special education services, but who were in need of instructional assistance and support. General educators must possess critical skills for inclusion settings, such as

adapting instruction for students with disabilities, managing challenging behavior of students with and without disabilities, as well as collaborating with special educators and related services personnel. However, many inservice teachers completed their professional preparation during a time of minimal inclusion of students in general education classrooms. Significant training gaps exist even in teachers who have been more recently prepared as educators. The Study of Personnel Needs in Special Education (SPeNSE) conducted in 2001 reports that less than one-third of professionals who had been teaching six years or fewer received any preservice preparation in special education collaboration. Only half reported receiving any preservice preparation in curriculum modification and adapting instruction and only two-thirds reported being taught strategies to manage challenging classroom behaviors.

Inservice general education teachers' feelings of unpreparedness are shared alike by preservice teachers. Previous research has demonstrated that preservice teachers do not feel sufficiently prepared to meet the needs of students with disabilities served in general education classrooms (Goodlad & Field, 1993; Jobling & Moni, 2004; Kirk, 1998; Rojewski & Pollard, 1990; Welch, 1996). Additionally, preservice general education teachers are not well-prepared for working with students with exceptional needs (Reed & Monda-Amaya, 1995, as cited in Harvey et al., 2010). Multiple researchers have studied inclusion, the concerns of teachers, and their training needs (Cheney & Barringer, 1995; Little & Robinson, 1997; Reed & Monda-Amaya, 1995). Kearney and Durand (1992) researched both training and preparation programs of preservice general educators for inclusive classrooms; the results of their investigation showed both inadequate coursework and preparation in special education, as well as very few opportunities for field-based experience in inclusive classrooms. Likewise, Reed and Monda-Amaya (1995) demonstrated that preservice general educators lacked preparation for working

with students with disabilities. The special education information these teachers obtained was either integrated into the general curriculum instruction or taught in one or two separate courses. Goodlad and Field (1993) indicated that general educators felt they had been insufficiently prepared to meet the educational needs of students with disabilities. Decades later, research indicates that preservice teachers still do not feel adequately prepared to serve students with disabilities within general education classrooms (Shippen, Crites, Houchins, Ramsey, & Simon, 2005). Additionally, Cook (2002, as cited in Everhart, 2009) found that preservice teacher candidates did not feel adequately prepared to work in classrooms in which one or more students with disabilities were present. In general, the lack of genuine inclusion in general education classrooms, simply taught alongside the general curricula or in separate classrooms, leaves teachers feeling unprepared and unable to practice inclusion in their own classrooms.

Teacher preparation programs must consider how to best train both general education and special education preservice teachers in the essential strategies to appropriately serve students with disabilities in general education classrooms (Shippen et al., 2005). This paradigm shift in the delivery of services and instructional arrangement to favor inclusive general education classrooms for students with disabilities, as well as increased expectations for students with disabilities' performance in the general curriculum, creates significant implications for teacher preparation programs. Teacher preparation programs must reevaluate and reexamine how they prepare general education preservice teachers to meet the increasing educational demands of all students within the requirements of general education classrooms. This task has become exceedingly difficult as the special education coursework requirements within most teacher preparation programs vary greatly from state to state, and program to program. In the majority of the preparation programs, preservice general educators are required to complete one, or at most

two, courses focusing on students with disabilities and special education issues (Cameron & Cook, 2007). This limited preparation is cause for great concern and urgency on the part of teacher preparation programs, as general education preservice teachers will be required to face responsibilities that were once specific to teachers certified in special education, but without the necessary education and training.

As teachers are expected to successfully educate students with a diverse range of needs, it is critical that teachers have been well prepared for the demands of an inclusive classroom and display positive attitudes toward inclusive education and students with disabilities. Research indicates that the teacher is the most important element that affects student learning in the classroom (Marzano, 2003). McLesky and Waldron (2007) stated that the attitudes and expectations of teachers have a direct effect on the academic performance of the students in the classroom. Preservice training presents itself as the optimal time to address educators' concerns for inclusion and influence any negative attitudes about students with disabilities (Ajuwon et al., 2012). Accordingly, teacher preparation programs have begun to integrate courses and practices to sensitize preservice teachers to the needs of students with disabilities, foster their understanding of students with disabilities, and improve attitudes toward inclusive education. Gehrke and Cocchiarella (2013) sought to identify aspects of university preservice education coursework and assigned fieldwork that contributed to preservice teachers' ability to define, identify, and implement inclusion. Unfortunately, results indicated a lack of consistency across teacher preparation programs and a disconnect between preservice teachers' knowledge of inclusion presented in coursework and students' field experience and observations of inclusion. A lack of preservice teachers' confidence was noted in their results.

Teachers must be both extremely capable and dedicated (Loreman, Forlin, & Sharma, 2007) as well as capable of teaching to a wide range of students identified with disabilities or struggling academically (Lauchlan & Boyle, 2007). Research has shown that teachers' attitudes towards inclusive education are critical to the success of an inclusive classroom (Boyle, Scriven, Durning, & Downes, 2011; Carroll, Forlin, & Jobling, 2003; Loreman, Deppeler, & Harvey, 2011; Sharma, Ee, & Desai, 2003). Researchers have reported that preservice teachers' attitudes toward inclusion of students with disabilities became more positive following completion of university coursework (Campbell, Gilmore, & Cuskelly, 2003; Garriott, Miller, & Snyder, 2003). Additionally, researchers have concluded that teachers who possess positive attitudes toward inclusive education are more likely to accommodate students with varying needs and are more likely to have a positive impact on their students' attitudes toward including students with disabilities (Good & Brophy, 2007; Norwicki & Sandieson, 2002; Sharma, Forlin, Loreman, & Earle, 2006; Subban & Sharma, 2005). Additionally, Jung (2007) found that teachers with low self-confidence and a low sense of efficacy are more likely to refer students who are perceived as difficult to teach, particularly students with special needs, than are teachers with high self-confidence and a high sense of self-efficacy. Sze (2009), through an analysis of literature on preservice teachers found that the attitude of the general education teacher is one of the most important predictors of successful integration of students with disabilities in general education classrooms. The findings confirmed a significant link between preservice teachers' attitudes and instructional practices.

Beliefs about teaching, which include perceptions about what it takes to be an effective teacher, are formed well before a student enters college, and these beliefs are either challenged or nurtured during the student's teacher training program (Minor, Onwuegbuzie, Witcher, & James,

2002). Teacher efficacy has been defined as teachers' beliefs about their ability to bring about desired outcomes in their students. Ashton and Webb (1986) have defined teacher efficacy as "a teacher's situation-specific expectation that he/she can help students learn" (p. 4). Two distinct components of teacher efficacy have emerged in the research: (1) personal efficacy, the teacher's confidence in his/ her own teaching or the belief that an individual can affect changes in his or her students; and, (2) teaching efficacy, the belief that educators or teaching can overcome the effects of other influences or have an influence over student learning (Ashton & Webb, 1986; Dunst & Bruder, 2013; Gibson & Dembo, 1984, as cited in Soodak, Podell, & Lehman, 1998). Teacher efficacy depends not only on teachers' perceptions and confidence in their own capabilities, but also on how this efficacy influences and effects students' learning (Chu, 2011). Research has demonstrated that the beliefs teachers form about their teaching and their sense of self-efficacy during their preservice training become embedded and long-lasting, and they can be resistant to change over the span of their teaching career (Woolfolk-Hoy & Spero, 2005, as cited in Woodcock & Vialle, 2011). Researchers have used the theory of self-efficacy to understand preservice educators' self-efficacy beliefs toward the inclusion of students with disabilities and their methods of preparation in this area. Additionally, researchers suggest that special education courses can increase preservice teachers' self-efficacy beliefs toward teaching individuals with disabilities when courses are comprised of specific topics of inclusion, including characteristics of disabilities, classroom and behavior management strategies, curricular adaptations (e.g., accommodations and modifications), differentiating instruction, inclusion practices, and collaboration strategies (Lancaster & Bain, 2010; Allday, Neilsen-Gatti, & Hudson, 2013).

Understanding teacher efficacy in teaching students with disabilities can contribute to a better understanding of preservice teachers' beliefs, support and shape professional development

for teachers, influence the teacher education curriculum, and provide the foundation for a better understanding of what it means to be a teacher today (Dawson, 2008). Zundans-Fraser and Lancaster (2012) found that within the teaching context, self-efficacy is facilitated by the mastery of experiences, physiological and emotional cues, vicarious experiences, and verbal persuasion. Multiple studies have examined self-efficacy in the context of schools, teachers, and students, but few have focused specifically on inclusive educational practices (Lancaster, 2005; Sari, Celikoz, & Secer, 2009). Additionally, numerous studies have surveyed the attitudes, sentiments, and concerns of preservice teachers about instruction of children with disabilities (Boling, 2007; Elik, Wiener, & Corkum, 2010; Hergenrather & Rhodes, 2007), but few have focused specifically on teacher self-efficacy and its potential to effect and change the beliefs of preservice teachers in their own ability to work with students with disabilities (Romi & Leyser, 2006; Ruys, van Keer, & Aelterman, 2010).

Preservice teachers' successful field experiences, as well as their work with effective classroom mentor teachers, promoted their sense of efficacy and attitudes toward teaching those who are culturally and academically different (Zundans-Fraser & Lancaster, 2012). For this reason, preservice teacher preparation programs should examine the design and content of their courses, as well as the structure of their initial field experiences because of their potentially transformational influence on preservice teachers' attitudes, efficacy, and skills (Lastrapes & Negishi, 2012).

Methods

Preservice teachers enrolled in a one-semester introductory special education course with a required 15 hours of field observations with a mentor teacher, and demographic variables at a South Texas college were asked to voluntarily participate in a Pre-Test and Post-Test survey of

Demographic Information, an Attitudes Questionnaire (AQ), the Preservice Inclusion Survey (PSIS), and the short version of the Teacher Sense of Efficacy Scale (TSES). All of these were combined into one single survey instrument and delivered online. Pre- and post- matches were evaluated.

Results

Total enrollment for the selected course for four sections over three semesters included 88 total students. Of the 88 students, 86 indicated an interest in participation in the study.

In total, there were 24 responses to the pre-survey and 28 responses to the post survey; however, there were only 12 matches, students who responded to both the pre and post survey. These students, all female, ranged in age from 20 to 41. Three (25%) were juniors and 9 (75%) were seniors. These students were training to teach in the areas of Early Childhood (4 – 33.3%), Primary/Elementary (2 – 16.7%), Secondary (5 – 41.7%) and Bilingual (1 – 8.3%) education.

As there were too few matches to be able to utilize inferential statistics effectively, the decision was made to consider changes between the pre and post surveys of .25 or over.

The mean of the knowledge question, “My knowledge of the legislation as it pertains to children/students with disabilities” increased from 2.25 to 2.64. However, this would still be considered quite low as the possible range was 1-5 (Table 1).

Table 1: Positive changes in Knowledge

	PRETEST			POSTTEST			Change in Mean
	N	Mean	SD	N	Mean	SD	
My knowledge of the legislation as it pertains to children/students with a disability.	12	2.25	.75	11	2.64	.67	.39

There appeared to be a positive change in attitudes and four of the eight questions on attitudes changed in a positive direction. The greatest change in means between pre and post with .56 was: “I would welcome the opportunity to team teach as a model for meeting the needs of students with mild/moderate disabilities in a general education classroom.” The next highest with a mean change of .47 was: “The responsibility for educating students with mild/moderate disabilities in general education classrooms should be shared between the general and special education teachers.” This was followed with: “All students deserve an appropriate education, even if this means teachers must spend extra time and resources to meet their needs (Mean Change = .40); and “Students need different types and amounts of instructional support in order to succeed (Mean = .25). (Table 2). There was one negative change that was greater than .25, “I would welcome the opportunity to participate in a consultative teacher model as a means of addressing the needs of students with disabilities in general education class,” decreased with a mean change of .28 between the pre and post surveys (Table 3).

Table 2: Positive changes in Attitudes

	PRETEST			POSTTEST			Change
	N	Mean	SD	N	Mean	SD	in Mean
All students deserve an appropriate education, even if this means teachers must spend extra time and resources to meet their needs.	12	4.42	1.00	11	4.82	.60	.40
Students need different types and amounts of instructional support in order to succeed.	12	4.75	.62	11	5.00	.00	.25
The responsibility for educating students with mild/moderate disabilities in general education classrooms should be shared between the general and special education teachers.	12	4.17	1.11	11	4.64	.67	.47
I would welcome the opportunity to team teach as a model for meeting the needs of students with mild/moderate disabilities in a general education classroom.	12	4.08	1.08	11	4.64	.67	.56

Table 3: Negative changes in Attitudes

	PRETEST			POSTTEST			Change
	N	Mean	SD	N	Mean	SD	in means
I would welcome the opportunity to participate in a consultative teacher model as a means of addressing the needs of students with disabilities in a general education classroom.	11	4.73	.90	11	4.45	.82	-.28

There were negative and positive changes between the pre and post surveys on Teacher Efficacy. The positive changes included: “If parents would do more for their children, I could do more.” (Mean Change = .68). This stem had been reverse coded and thus students leaned more strongly in the direction of disbelieving this statement. There was also an increase in efficacy in the belief that student teachers would be able to improve student learning over time (Mean Change = .25); “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.’ (Table 4).The negative changes included “The amount a student can learn is primarily related to family background” (Mean Change = $-.71$). As this item was reverse coded, it meant that the student teachers appeared to lean even more strongly in the direction of family background vs. teacher control. The other stem, “When I really try, I can get through to most difficult students” decreased by $.58$. It seems that there was a tendency for student teachers to believe that their efficacy in dealing with difficult students decreased (Table 5).

Table 4: Positive changes in Teacher Efficacy

	PRETEST			POSTTEST			Change in Mean
	N	Mean	SD	N	Mean	SD	
If parents would do more for their children, I could do more. R	11	2.82	1.17	10	3.50	1.72	.68
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.	11	4.55	1.13	10	4.80	1.03	.25

Table 5: Negative changes in Teacher Efficacy

	PRETEST			POSTTEST			Change in means
	N	Mean	SD	N	Mean	SD	
The amount a student can learn is primarily related to family background. R	11	3.91	1.92	10	3.20	1.48	$-.71$
When I really try, I can get through to most difficult students.	11	5.36	.67	9	4.78	.97	$-.58$

The survey also studied students’ perceptions of inclusive education. They were given a scenario, as follows:

The administrator of your school calls you in for a conference two weeks before school is out. He/she informs you that next school year the school will make an effort to include students with disabilities in general education classes as often as appropriate. The special education teacher is also in attendance at this conference and he/she is hearing this information for the first time, too. The administrator goes on to say that the students with disabilities that will be in your class have identified exceptionalities in the areas of hearing impairment, learning disabilities, intellectual disabilities, behavioral disorders, and physical impairments requiring the use of a wheelchair.

You walk out of the meeting feeling.....

The negative words were reverse coded: unwilling, nervous, annoyed, and pessimistic. In order from highest mean change are: Confident (Mean Change = .82), Prepared (Mean Change = .72), Unwilling (Mean Change = .61), Annoyed (Mean Change = .47), Nervous (Mean Change = .45), Pessimistic (Mean Change = .39), Happy (Mean Change = .36), Interested (Mean Change = .35). Overall the student teachers appear to be more confident and prepared after they complete their preservice (Table 6). Student teachers responded to one question in this area in a negative manner, the mean for pleased decreased by .39 (Table 7).

Table 6: Positive Change in Inclusion Perceptions

	PRETEST			POSTTEST			Change in Mean
	N	Mean	SD	N	Mean	SD	
Scenario 1: Unwilling	12	3.75	1.36	11	4.36	1.29	.61
Scenario 1: Interested	12	3.83	1.27	11	4.18	1.33	.35
Scenario 1: Confident	12	3.00	1.41	11	3.82	1.08	.82
Scenario 1: Nervous	12	2.00	1.04	11	2.45	1.29	.45
Scenario 1: Annoyed	12	3.17	.58	11	3.64	1.29	.47
Scenario 1: Prepared	12	2.92	1.24	11	3.64	1.21	.72
Scenario 1: Happy	11	3.73	1.27	11	4.09	1.30	.36
Scenario 1: Pessimistic	12	3.25	.87	11	3.64	.67	.39

Table 7: Negative Change in Inclusion Perceptions

	PRETEST			POSTTEST			Change in Mean
	N	Mean	SD	N	Mean	SD	
Scenario 1: Pleased	12	3.75	1.06	11	3.45	1.13	-.30

Conclusions

It is worth noting that preservice teachers with an interest in inclusion and delivering education services to students with disabilities, based on their enrollment in a course specific to the topic, and with an expressed interest in contributing to the research on how best to improve education for these students, were unwilling to complete the necessary survey in order to achieve confidence in the results.

As previously noted, due to the low matched response rate between pre- and post-test survey responses, inferential statistics could not be used to effectively. However, differences greater than .25 were analyzed. Positive increases in responses to the knowledge question “My knowledge of the legislation as it pertains to children/students with disabilities” increased from 2.25 to 2.64 are likely indicative of the pressure that preservice teachers may feel when faced with the complexity of the issues associated with inclusive education of students with disabilities. Gehrke and Cocchiarella (2013) noted a lack of confidence in preservice teachers whom had participated in university preservice education coursework and assigned fieldwork.

In terms of attitudes towards inclusive education, the results indicated that preservice teachers whom completed the coursework were more likely to have a positive attitude towards inclusive education and were more likely to believe that all students deserve an appropriate education, in the general classroom, with the appropriate instructional supports, and shared responsibility between general and special education teachers. These students also demonstrated increased positive attitudes towards being a member of a team teaching model. Consequently, these students were less likely to have a positive attitude towards participating in a consultative teacher model. The preference for the team teaching model over the consultative model may be related to course content and instructor bias with the surveyed course.

For teacher efficacy, the results suggest that after completing a preservice course dedicated to special education preparation, students were more likely to believe in a teacher’s ability to positively impact student learning despite other factors including parental support and family background. However, when presented with difficult students, the results suggest that confidence actually decreased. This is consistent with previous research which indicated that limited or inadequate experience and preparation increases anxiety and fear from students with

disabilities and the teachers assigned to teach them (Everhart, 2009; D'Alonzo, Giordano, & VanLeeuwen, 1997).

Finally, when presented with the prospect of teaching multiple students with differing disabilities in the general education classroom, after completing the coursework, preservice teachers were less likely to be pleased with the situation, but more likely to feel confident and prepared for the expected challenges. As Kirk (1998) found that coursework did not increase positive attitudes or an increased willingness to work with students with disabilities, it is likely that the unique field experience and mentor teacher structure of this course contributed to these results.

It is clear that preservice teacher coursework and training programs must make skills and strategies for delivering special education services in the general education setting a priority in order to meet the requirements of IDEA and NCLB. A starting point for designing curricula and instructional strategies for preservice teachers that prepares them to provide effective instruction to students with disabilities in inclusive settings is to measure the perceptions and attitudes that preservice teachers bring to the classroom (Jobling & Moni, 2004).

Based on the results of this study, it is recommended that: (1) embedded course design and instructional strategies be taught in introductory courses to support preservice teachers learning more instructional, classroom management, and collaboration strategies for special education; (2) Changes be made to the degree requirements for general education preservice teacher preparation programs to better prepare preservice teachers to meet the needs of all students; (3) inclusion strategies be intentionally integrated throughout all general education preparation courses, so that inclusion strategies and differentiation strategies are not only learned in one or two special education courses, but across the entire teacher preparation program.

References

- Ajuwon, P. M., Lechtenberger, D., Griffin-Shirley, N., Sokolosky, S., Zhou, L., & Mullins, F. E. (2012). General education pre-service teachers' perceptions of including students with disabilities in their classrooms. *International Journal of Special Education, 27*(3), 1-8.
- Allday, R. A., Neilsen-Gatti, S., & Hudson, T. M. (2013). Preparation for inclusion in teacher education pre-service curricula. *Teacher Education and Special Education, 36*(4), 298-311.
- Ashton, P.T. & Webb, R.B. (1986). Making a difference: Teachers' sense of efficacy and student achievement. New York: Longman.
- Boling, E. (2007). Yeah, but I still don't want to deal with it. Changes in a teacher candidate's conceptions of inclusion. *Teaching Education, 18*(3), 217-231.
- Boyle, C., Scriven, B., Durning, S., & Downes, C. (2011). Facilitating the learning of all students: 'The professional positive' of inclusive practice in Australian primary schools. *Support for Learning, 26*(2), 72-78. DOI: 10.1111/j.1467-9604.2011.01480.
- Bowlin, Tamara McMahan, "Inclusion and Collaboration: Impact of Preservice Teachers' Experiences on Their Knowledge, Attitudes and Perceived Sense of Efficacy." PhD diss., University of Tennessee, 2012. http://trace.tennessee.edu/utk_graddiss/1272
- Brownell, M.T., Adams, A., Sindelar, P., Waldron, N., & Vanhover, S. (2006). Learning from collaboration: The role of teacher quality. *Council for Exceptional Children, 72*, 169-185.
- Cameron, D. L., & Cook, B. G. (2007). Attitudes of Preservice teachers enrolled in an infusion preparation program regarding planning and accommodations for included students with mental retardation. *Education and Training in Developmental Disabilities, 42*, 353-363.

- Campbell, J., Gilmore, L., & Cuskelly, M. (2003). Changing student teachers' attitudes towards disability and inclusion. *Journal of Intellectual and Developmental Disability*, 28, 369-379.
- Carroll, A., Forlin, C., & Jobling, A. (2003). The impact of teacher training in special education on the attitudes of Australian Preservice general educators towards people with disabilities. *Teacher Education Quarterly*, 30(3), 65-79.
- Cheney, D., & Barringer, C. (1995). Teacher competence, student diversity, and staff training for the inclusion of middle school students with emotional and behavioral disorders. *Journal of Emotional and Behavioral Disorders*, 3, 174-182.
- Chu, S. (2011). Teacher perceptions of their efficacy for special education referral of students from culturally and linguistically diverse backgrounds. *Education*, 132(2), 3-14.
- Coates, R. (1989). The regular education initiative and opinions of regular education classroom teachers. *Journal of Learning Disabilities*, 22, 532-536.
- Cook, B. (2002). Inclusive attitudes, strengths, and weaknesses of pre-service general educators enrolled in a curriculum infusion teacher preparation program. *Teacher Education and Special Education*, 25, 262-277.
- Dawson, H. S. (2008). Constructing an effective measurement tool to assess the self-efficacy of Preservice teachers for teaching students with disabilities. (Master's Thesis)
- D'Alonzo, B. J., Giordano, G., & VanLeeuwen, D. M. (1997). Perceptions by teachers about the benefits and liabilities of inclusion. *Preventing School Failure*, 42, 4-11.
- <http://dx.doi.org/10.1080/10459889809603162>.

Dunst, C. J. & Bruder, M. B. (2013). Preservice professional preparation and teachers' self-efficacy appraisals of natural environment and inclusion practices. *Teacher Education and Special education, XX(X)*, 1-12; DOI: 10.1177/0888406413505873.

Elik, N., Wiener, J., & Corkum, P. (2010). Pre-service teachers' open-minded thinking dispositions, readiness to learn, and attitudes about learning and behavioural difficulties in students. *European Journal of Teacher Education, 33(2)*, 127-146.

Everhart, B. (2009). Anxiety of Preservice teachers teaching students with disabilities: A preliminary investigation. *Education, 129(4)*, 704-713.

Garriott, P., Miller, M., & Snyder, L. (2003). Preservice teachers' beliefs about inclusion education: What should teacher educators know? *Action Teacher Education, 25(1)*, 48-53.

Gehrke, R. S., & Cocchiarella, M. (2013). Preservice special and general educators' knowledge of inclusion. *Teacher Education and Special Education, 36(3)*, 204-216. DOI: 10.1177/0888406413495421.

Good, T. L., & Brophy, J. (2007). *Looking in classrooms*. (10th ed.) New York: Harper Collins.

Goodlad, J. I., & Field, S. (1993). Teachers for renewing schools. In J. I. Goodlad, & T. C. Lovitt (Eds.), *Integrating general and special education*. (pp. 229-252). New York: Merrill.

Harvey, M. W., Yssel, N., Bauserman, A. D., & Merbler, J. B. (2010). Preservice teacher preparation for inclusion: An exploration of higher-education teacher-training institutions. *Remedial and Special Education, 31(1)*, 24-33.

Hergenrather, K. & Rhodes, S. (2007). Exploring undergraduate student attitudes toward persons with disabilities: application of the disability social relationship scale. *Rehabilitation Counseling Bulletin, 50(2)*, 66-75.

Individuals with Disabilities Education Improvement Act, 20 U.S.C. § 400 *et seq.* (2004).

Jobling, A., & Moni, K. B. (2004). I never imagined I'd have to teach these children: Providing authentic learning experiences for secondary Preservice teachers in teaching students with special needs. *Asia-Pacific Journal of Teacher Education*, 32(1), 5-22.

Jung, W.S. (2007). Preservice teacher training for successful inclusion. *Education*, 128(1), 106-113.

Kirk, R. H. (1998). The link between university coursework and Preservice teachers' attitudes toward students with special learning needs. *College Student Journal*, 32(1), 153-157.

Lancaster, J. (2005). Is it really possible? Can students with learning difficulties ever achieve higher levels of self-efficacy? *Special Education Perspectives*, 14(2), 46-61.

Lancaster, J., & Bain, A. (2010). The design of Pre-service inclusive education courses and their effects on self-efficacy: A comparative study. *Asia-Pacific Journal of Teacher Education*, 38(2), 117-128. DOI: 10.1080/13598661003678950.

Lastrapes, W., & Negishi, M. (2012). Foundational field experiences: A window into Preservice teachers' cultural consciousness and self-efficacy for teaching diverse learners. *SRATE Journal*, 21(1), 37-43.

Lauchlan, F., & Boyle, C. (2007). Is the use of labels in special education helpful? *Support for Learning*, 22(1), 36-42. DOI: 10.1111/j.1467-9604.2007.00443.x.

Little, M. E., & Robinson, S. M. (1997). Renovating and refurbishing the field experience structures for novice teachers. *Journal of Learning Disabilities*, 30, 433-441.

Loreman, T., Doppler, J., & Harvey, D. (2011). *Inclusive education: Supporting diversity in the classroom.* (2nd. ed.) Crow's Nest, N.S.W.: Allen & Unwin.

- Loreman, T., Forlin, C., & Sharma, U. (2007). An international comparison of Preservice teacher attitudes toward inclusive education. *Disability Studies Quarterly, 27*(4).
- Marzano, R. (2003). *What works in schools: Translating research into action?* Alexandria, VA: Association for Supervision and Curriculum Development.
- McLeskey, J., & Waldron, N. (2007). Making differences ordinary in inclusive classrooms. *Intervention in School and Clinic, 42*(3), 162-168.
- Minor, L. C., Onwuegbuzie, A. J., Witcher, A. E., & James, T. L. (2002). Preservice teachers' educational beliefs and their perceptions of characteristics of effective teachers. *The Journal of Educational Research, 96*(2), 116-127.
- No Child Left Behind Act of 2001, Pub. L. No. 107-110, § 115, 1425 Stat. (2002).
- No Child Left Behind Act of 2001, 20USC. §6301 *et seq.*
- Norwicki, E.A., & Sandieson, R. (2002). A meta-analysis of school-age children's attitudes toward person's physical or intellectual disabilities. *International Journal of Disability, Development and Education, 49*(3), 243-265.
- President's Commission on Excellence in Special Education. (2002). A new era: Revitalizing special education for children and their families. Washington, D.C.: author.
- Reed, F., & Monda-Amaya, L. E. (1995). Preparing Preservice general educators for inclusion: A survey of teacher preparation programs in Illinois. *Teacher Education and Special Education, 18*, 262-274.
- Rojewski, J. W., & Pollard, R. R. (1990). A multivariate analysis of perceptions held by secondary academic teachers toward students with special needs. *Teacher Education and Special Education, 16*, 30-341.

- Romi, S. & Leyser, Y. (2006). Exploring inclusion Preservice training needs: a study of variables associated with attitudes and self-efficacy beliefs. *European Journal of Special Needs education, 21*(1), 85-105.
- Ruys, I., van Keer, H., & Aelterman, A. (2010). Collaborative learning in pre-service teacher education: an exploratory study on related conceptions, self-efficacy, and implementation. *Educational Studies, 36*(5), 537-553.
- Sari, H., Celikoz, N., & Secer, Z. (2009). An analysis of preschool teachers' and student teachers' attitudes to inclusion and their self-efficacy. *International Journal of Special Education, 24*(3), 29-44.
- Sharma, U., Forlin, C., Loreman, T., & Earle, C. (2006). Pre-service teachers' attitudes, concerns and sentiments about inclusive education: An international comparison of the novice pre-service teacher. *International Journal of Special Education, 21*(2), 80-93.
- Sharma, U., Ee, J., & Desai, I. (2003). A comparison of Australian and Singaporean Preservice teachers' attitudes and concerns about inclusive education. *Teaching and Learning, 24*(2), 207-217.
- Shippen, M. E., Crites, S.A., Houchins, D. E., Ramsey, M.L., & Simon, M. (2005). Preservice teachers' perceptions of including students with disabilities. *Teacher Education and Special Education, 28*(2), 92-99.
- Soodak, L.C., Podell, D.M., & Lehman, L.R. (1998). Teacher, student, and school attributes as predictors of teachers' responses to inclusion. *The Journal of Special Education, 28*(2), 92-99.

SPeNSE (2001). SPeNSE Fact Sheet: General education teacher's role in special education.

Retrieved January 27, 2015 from [http://www.specialed.us/discoveridea/spense/gened 11-29.pdf](http://www.specialed.us/discoveridea/spense/gened11-29.pdf)

SPeNSE (2001). SPeNSE Summary Sheet: A High-Quality Teacher for Every Classroom.

Retrieved January 27, 2015 from [http://www.specialed.us/discoveridea/spense/gened 11-29.pdf](http://www.specialed.us/discoveridea/spense/gened11-29.pdf)

Subban, P., & Sharma, U. (2005). Understanding educator attitudes toward the implementation of inclusive education. *Disabilities Studies Quarterly*, 25(2).

Sze, S. (2009). A literature review: Pre-service teachers' attitudes toward students with disabilities. *Education*, 130(1), 53-56.

Taylor, R. W., & Ringlaben, R. P. (2012). Impacting pre-service teachers' attitudes toward inclusion. *Higher Education Studies*, Vol.2, No. 3, 16-23.

The Elementary and Secondary School Act. Public Law 89-10 (April 11, 1965).

U.S. Department of Education, National Center for Educational Statistics (2011). *Digest of Educational Statistics, 2010* (NCES 2011-015).

Welch, M. (1996). Teacher education and the neglected diversity: Preparing educators to teach students with disabilities. *Journal of Teacher Education*, 47, 355-362.

Woodcock, S. & Vialle, W. (2011). Are we exacerbating students' learning disabilities? An investigation of Preservice teachers' attributions of the educational outcomes of students with learning disabilities. *Annals of Dyslexia*, 61(2), 223-241.

Zundans-Fraser, L. & Lancaster, J. (2012). Enhancing the inclusive self-efficacy of Preservice teachers through embedded course design. *Educational Research International*, Volume 2012, DOI: 10.1155/2012/581352.

SA16010/SA16011