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Woo Jung Ph.D.
wjung@fullerton.edu

Grace Cho Ph.D.
gcho@fullerton.edu

Debra Ambrosetti Ph.D.
dambrosetti@fullerton.edu

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Preservice Teachers' Confidence Levels in Working with
Students with Special Needs: Improving Preservice Teacher Training Programs

Woo Jung, California State University Fullerton
wjung@fullerton.edu
P.O. Box 6868
Fullerton, CA 92834
657-278-4106 (o)
657-278-5085 (fax)

Grace Cho, California State University Fullerton
gcho@fullerton.edu

Debra Ambrosetti, California State University Fullerton
dambrosetti@fullerton.edu

Abstract

Teacher confidence levels have been shown to increase with training, exposure to specific situations, knowledge, and utilization of interventions. The purpose of this study was to investigate preservice teachers' confidence levels in teaching students with special needs. The 287 participants were from three separate education departments within a college of education. The results indicated that students working toward a teaching credential in the field of special education reported higher confidence levels than did those seeking a credential in secondary and elementary education. In addition, secondary teacher candidates reported higher confidence levels than did elementary teacher candidates. Based on the findings, implications for policy, practice, and further research are discussed.

The discourse related to students with special needs began to emerge in courtrooms across the United States during the second half of the twentieth century. The rights of the child, regardless of disability, to receive an appropriate education with peers have been interpreted by our legal system to

mean the inclusion of all students within general education (GE) classrooms (Forlin, Hattie, & Douglas, 1996). Public Law (P.L.) 94-142 (Education for All Handicapped Children Act, 1975) helped formulate the concept of mainstreaming, which essentially means that students who qualify for special services are permitted to participate in GE classroom settings. Nevertheless, students identified with disabilities continued to be removed from GE classrooms and to receive academic instruction in isolated special education (SPED) classrooms, otherwise known as “pull-out programs.” This instruction included a SPED teacher and support staff who worked with the child. There was little interaction or collaboration, however, between the GE and SPED teachers. As a result, the SPED student’s interactions with GE students occurred only during such times as music, physical education classes, library visits, lunch, recess, and other non-academic blocks of time. Additionally, GE teachers were not required to alter their teaching styles or to take responsibility for modifying instruction to meet the needs of students with disabilities. Moreover, students with special needs were often excluded from field trips for GE students due to the accommodations needed to enable them to attend. Even with the newer approach to educating these students, the same concerns of bias, inadequate instruction, and social and psychological discrepancies were still confronting educators (Wang, Reynolds, & Walberg, 1987).

In 1990, the Individuals with Disabilities Education Act (IDEA) was enacted to ensure equal educational opportunities for all children with special needs. It was also hoped that this legislation would improve upon the aforementioned earlier paradigms. It was during this time that the term *inclusion* was forged, referring to the notion that students should be instructed in the GE classroom as much as deemed possible by the multidisciplinary team of SPED teachers, GE teachers, parents, and administrators at the school. For the first time in 30 years, GE teachers were faced with the challenge of adapting their teaching techniques and curricula to meet the needs of students with special needs. The progression has gone from self-contained classrooms, prior to 1975, to mainstreaming, during the 1970s and 80s, to instruction by the GE teacher in the GE classroom, as legislated in 1990, with support

services provided in the GE classroom by SPED teachers. IDEA was reauthorized in 1997 and 2004 and has continued to support students with special needs by granting them access to the GE classroom settings.

In the case of *W.B. vs. Matula*, Zirkel (1996), it was decided that schools could not dictate a closed-door policy toward students with special needs. It was also ruled that schools do not have to provide the best education possible; rather, they must accommodate students with special needs to the extent that ensures that they are placed in the least restrictive environment. In this case, the school's personnel were accused of verbal attacks on the parents, a refusal to look at the initial evaluation, and not making reasonable accommodations. As a result of this case, schools are required to provide appropriate education for all students with special needs.

Many barriers to implementing IDEA in public schools still exist. Legislating equality and challenging discrimination can be accomplished through the courts and Congress, but the barriers to full acceptance of students with special needs in GE still persist. In other words, we cannot legislate acceptance (Antonak & Larrivee, 1995).

May and Kundert (1996) reinforced the notion that a lack of training can be an obstacle for GE teachers in dealing with any level of atypicality in students. Self-reflection and self-evaluation are viewed as an integral part of self-regulation, and resources and training are considered two of the building blocks to attaining better self-regulation. Learning instructional strategies to deal with atypicalities is another building block. Chester and Beaudin (1996) suggested that a number of variables can affect the interaction between teachers and students with special needs. These include the amount of collaboration time given to SPED and GE teachers, mentoring, evaluation procedures for newly hired staff, individual students' strengths and needs, and resources available to GE teachers. Their research showed that the training of preservice teachers is a critical factor in shaping teachers' beliefs and/or attitudes. The authors also explored the relationship between self-efficacy beliefs, teacher

characteristics, and school practices of newly hired teachers. They found that the level of training and support that the teachers received were key factors in their success in instructing students with special needs. Chester and Beaudin also found that teachers with low self-confidence, as compared to those with high self-confidence, are more likely to identify students with special needs as difficult to teach.

Lyall, Holland, and Collins (1995) reported that adults with learning disabilities are often permanently labeled as mentally deficient and, as a result, are socially deprived. In addition, people with learning disabilities have a higher psychiatric disorder rate than does the general population. The researchers suggested that a better understanding of atypicality and a background in their actual limitations might lead to less frequent affiliations with the negative connotations made by the general public. We often forget that students with special needs grow into adults with special needs; therefore, empathy, understanding, and adaptability in working with their disabilities is needed in all levels of development.

Teachers with low self-confidence are more likely than are teachers with high confidence to refer students who are perceived as difficult to teach, particularly those from low socioeconomic backgrounds. The confidence that one has in the outcomes of his or her behavior helps to determine one's actions (Soodak & Podell, 1996). Soodak and Podell's study looked at the differences between personal vs. teaching self-confidence and found that efforts to enhance teacher efficacy must take into account whether low teacher efficacy is due to teachers' self-confidence levels or a sense of futility regarding the impact of their work. If training does influence one's perception of his or her ability to work successfully with special learners, then an increase in requirements for teaching might be required in dealing with exceptionalities.

Kalaian and Freeman (1994) found that self-confidence levels had a significant effect upon various aspects of teaching. Thus, developing confidence in one's ability to teach is not only important for special educators but for GE teachers as well. Researchers have been exploring GE teachers'

attitudes toward students with disabilities (Center & Ward, 1997; Hoover & Sakofs, 1995). Center and Ward conducted a survey of the attitudes of GE ($n = 2,219$) and SPED ($n = 332$) teachers in regard to students with special needs. Their results indicated that teachers' attitudes toward the integration of students with disabilities reflected a lack of confidence both in their own instructional skills and in the quality of support personnel currently provided to them. Additionally, Larrivee and Cook (1999) surveyed 1,000 public school teachers in an attempt to assess attitudes toward students with special needs. They reported that teachers' perceptions of the degree of success in dealing with students with special needs had the most significant relationship to teachers' attitudes toward inclusion.

Richardson (1998) found several key elements in successfully changing attitudes toward students with special needs. These included a willingness to change, a common mission, the use of collaboration, and training. Sensitivity training was also noted as increasing a teacher's feeling of confidence, efficacy, and positive attitude toward disabilities. Efforts to enhance teacher confidence must take into account whether low teacher efficacy is due to teachers' confidence levels or a sense of futility regarding the impact of their work. Variables emphasized as assisting in a positive attitude change include training, collaboration, ownership, and administrative support.

Researchers have focused on whether GE teachers possess the skills to teach children with special needs in their classroom. Minke, Bear, Deemer, and Griffin (1996) found that GE teachers make few, if any, accommodations for students with special needs in the classroom and often feel unprepared to teach students with special needs. Barriers may result because regular educators do not perceive that students with special needs belong in an inclusive classroom. Collaboration is part of the protected resources that are important for inclusion and/or teaching students with special needs in the GE classroom.

The purpose of this study was to investigate preservice teachers' confidence levels in teaching students with special needs, using preservice teachers from three separate education departments within a college of education.

Methods

The study was conducted in a college of education in a large suburban university in Southern California. Participants were preservice teacher candidates from the departments of elementary education (ELED), secondary education (SecED), and special education (SPED). All three departments prepare teacher candidates to teach in public schools and have a fieldwork component that requires preservice teachers to spend time in classroom settings. This fieldwork component occurs early in the program and provides preservice teachers with an opportunity to work with students from diverse backgrounds.

Participants

A total of 287 preservice teachers from three education departments participated in this study (see Table 1), of whom 105 (36.6%) were from the ELED department, 90 (31.4%) were from the SecED department, and 92 (32.1%) were from the SPED department. Of the 287 respondents, 227 were female and 60 were male. The respondents were predominantly Caucasian ($n = 174$, 60.6%). The participants' ethnicity is as follows: 61% Caucasian, 16% Hispanic, 8% Asian/Pacific Islander, 6% Native American, 4% African-American, and 6% "other." There were six age categories, and the respondents ranged in age from 21 to 60, with the majority in the age group of 21-30 years ($n = 207$, 72.1%).

Table 1

Information of Participating Teacher Candidates by Group, Age, Gender, and Ethnicity

Variable	n	Percentage (%)
<i>Group</i>		
Special Education (SPED)	92	32.0
Elementary Education (ELED)	105	36.6
Secondary Education (SecED)	90	31.4
<i>Age</i>		
21-25	134	46.7
26-30	73	25.4
31-35	27	9.4
36-40	17	5.9
41-45	15	5.2
46-50	10	3.5
51-55	7	2.4
56-60	3	1.0
61<	1	0.3
<i>Gender</i>		
Female	228	79.1
Male	60	20.9
<i>Ethnicity</i>		
Asian-Pacific	22	7.7
African American	12	4.2
Caucasian	174	60.6
Hispanic	45	15.7
Native American	16	5.6
Others	18	6.3
Total	287	100%

Instrument

The questionnaire used in this study consisted of 7 demographic questions and 25 statements pertaining to participants' confidence levels in working with special needs students. The 25 statements (see Figure 1) were drawn from the Special Needs Confidence Scale (LePage, Lewis, & Casella, 1995). Examples of the statements include, "I feel confident in my ability to teach students with disabilities" and, "I feel confident that I can use new technologies with students with special needs to enhance classroom participation and instruction." One statement, "I know current teaching methods and strategies for working with students who have . . .," was further divided into 10 categories of students with special needs, including visual impairment, autism, and multiple disability. This scale has been previously used to assess the confidence of preservice special education candidates who had completed a technology class as compared to those who had not.

The responses to the statements were presented in a 5-point Likert format in which participants were requested to specify their confidence levels in teaching students with special needs (1 = "low" to 5 = "high"). A Pearson product-moment correlation coefficient was used to compare the scores, which had a correlation of .82 for the scale used in this study (LePage et al., 1995). In addition, a split-half reliability measure was used to check the internal consistency of the Special Needs Confidence Scale, yielding an internal reliability of .95. We took several steps to ensure that the confidence inventory that we utilized for this study was a valid and reliable instrument. Three experts in the field of special education reviewed the questionnaire for content validity.

Data Analysis

The demographic data were analyzed by frequency counts. Descriptive statistics and one-way analysis of variance (ANOVA) were applied in order to compare the confidence levels of the three groups and post hoc comparisons were conducted later to compare each pair. An alpha level of $p < .05$ was adhered to for determining significant statistical results. First, we compared two groups, SPED and

GE. For the purpose of this part of the analysis, one group of participants was preservice teachers preparing to specialize in teaching students with special needs. The other group, GE, combined preservice teachers from both the ELED and SecEd departments. All of the participants were in the middle of their credential program and were surveyed within one year of completing their prerequisite courses. To further examine the differences among the three groups (i.e., ELED, SecEd, and SPED), a Tukey post-hoc was conducted as a follow-up. Significance was set at $p < .05$.

Results

The results are reported in two categories: comparison of special education to general education preservice teachers and comparison of elementary to secondary teacher candidates. Table 2 presents the means and standard deviations by group. To follow-up the significant one-way ANOVA among groups for each statement (item) was conducted (see Table 3).

Comparison of Special Education to General Education Preservice Teachers

The results are reported in two categories: comparison of special education to general education preservice teachers and comparison of elementary to secondary teacher candidates.

Comparison of Special Education to General Education Preservice Teachers

The table 3 showed that, when compared to the GE group, SPED preservice teachers reported significantly higher confidence levels in every area but one (knowledge of current teaching methods and strategies for working successfully with students with visual impairment: item #18). The SPED preservice teachers reported confidence in their ability to teach students with disabilities ($F(2, 284) = 56.81, p < .001$). They also felt that they had the ability and knowledge to develop materials that would meet the needs of students with special needs ($F(2, 284) = 39.29, p < .001$), adapt a learning environment for students with special needs ($F(2, 284) = 23.13, p < .001$), and feel comfortable with the terms used in special education ($F(2, 284) = 28.37, p < .001$). Further, the results revealed that significantly more SPED preservice teachers felt comfortable adapting materials ($F(2, 284) = 8.40, p < .001$) and using new

technologies for students with special needs ($F(2, 284) = 11.72, p < .001$). They also believed that they could provide accurate information to parents about opportunities for their children ($F(2, 284) = 5.37, p < .01$). SPED preservice teachers also felt confident in their ability to evaluate the effectiveness of educational media for students with special needs ($F(2, 284) = 12.25, p < .001$).

The results also showed that SPED preservice teachers reported feeling confident that they possessed knowledge of current teaching methods and strategies for working successfully with the following categories of students with special needs: physical disabilities ($F(2, 284) = 7.79, p < .01$), multiple disabilities ($F(2, 284) = 5.47, p < .01$), developmental disabilities ($F(2, 284) = 12.71, p < .001$), speech impairments ($F(2, 284) = 4.08, p < .05$), autism ($F(2, 284) = 28.39, p < .001$), serious emotional disturbance ($F(2, 284) = 18.73, p < .001$), specific learning disabilities ($F(2, 284) = 14.88, p < .001$), and working with at-risk students ($F(2, 284) = 8.29, p < .001$).

Finally, SecEd preservice teachers reported that they felt more confident to provide students with opportunities for success ($F(2, 282) = 5.49, p < .01$) and implement assessment procedures ($F(2, 282) = 13.35, p < .001$) than did SPED and ELED groups. Also, the one area in which secondary teacher candidates reported a higher confidence level than did special and elementary education teacher candidates was in the teaching methods and strategies for the visual impairment ($F(2, 282) = 4.36, p < .01$).

Table 2

Mean and Standard Deviations for Special Needs Confidence Scale by Groups

Item #s	<u>Special Education</u>		<u>Elementary Education</u>		<u>Secondary Education</u>		
	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>	
1	4.09	.79	2.82	.78	3.19	.97	
2	4.15	.75	3.02	.96	3.49	.95	
3	4.33	.68	4.15	.79	4.49	.62	
4	4.29	.70	3.50	.88	3.78	.88	
5	4.00	.80	2.97	1.05	3.20	1.09	
6	3.73	.81	3.28	1.06	4.00	1.07	
7	4.07	.85	3.56	.83	3.82	.91	
8	3.79	.86	3.21	1.03	3.78	1.01	
9	4.58	3.08	4.11	.78	4.27	.73	
10	4.92	5.21	4.04	.82	4.16	.76	
11	4.47	.64	4.37	.64	4.42	.65	
12	4.18	.81	3.81	.90	4.10	.82	
13	3.74	.88	3.05	1.02	3.43	1.04	
14	2.88	1.07	2.30	1.08	2.81	1.24	
15	2.92	4.48	1.68	.88	2.14	1.06	
16	3.30	1.25	2.49	1.08	2.72	1.16	
17	2.40	1.12	2.33	1.17	2.72	1.28	
18	2.36	1.18	2.33	1.09	2.79	1.29	
19	3.11	1.24	2.64	1.05	2.79	1.23	
20	3.66	1.19	2.53	1.16	2.53	1.21	
21	3.20	1.23	2.17	1.05	2.61	1.24	
22	4.02	.99	3.22	1.10	3.29	1.26	
23	3.88	1.03	3.37	1.02	3.31	1.10	
24	4.17	.88	4.51	3.01	4.30	.94	
25	4.32	.90	4.57		.78	4.53	.94

Table 3.

F values and Significance Levels for Special Needs Confidence Scale

Items	F	p
1. I feel confident in my ability to teach students with disabilities	56.81	.00***
2. I feel confident that I can develop materials that will meet the needs of special education	39.29	.00***

3. I feel confident that I can provide my students with opportunities for success		
5.49	.01**	
4. I am confident that I can adapt a learning environment so that special needs students can participate		23.13
	.00***	
5. I feel comfortable with the terminology used in special education		28.37
	.00***	
6. I feel confident that I can implement assessment procedures		13.35
	.00***	
7. I feel confident that I can adapt materials to meet the needs of students with different learning speeds		8.40
	.00***	
8. I feel confident that I can use new technologies with special needs students to enhance classroom participation and instruction		11.72
	.00***	
9. I feel confident that I can make a change in my student's academic achievement level		1.56
	.21	
10. I am confident that I can make a change in a student's quality of life		2.40
	.09	
11. I am confident that I can make a positive change in a student's self-esteem		.54
	.58	
12. I am confident that I can provide accurate information to parents about opportunities for their children		5.37
	.01**	
13. I feel confident when evaluating the effectiveness of educational media for special needs students.		12.25
	.00***	
<u>Teaching Methods and Strategies</u>		
14. physical disability		7.79
	.00***	
15. multiple disability		5.47
	.01**	
16. developmental disability		12.71
	.00***	

17. hearing impairment	2.85
.06	
18. visual impairment	4.36
.01**	
19. speech impairment	4.08
.02*	
20. autism	28.39
.00***	
21. seriously emotional disorder	18.73
.00***	
22. learning disability	14.88
.00***	
23. at-risk	8.29
.00***	
24. culturally diverse	.76
.47	
25. general education	2.39
.09	

Note: * $p < .05$; ** $p < .01$; *** $p < .001$

Post-hoc comparisons were followed to further examine differences among all three groups (Table 4). The results of the post-hoc analysis supported our initial findings that significantly more SPED preservice teacher candidates ($M = 4.09$, $SD = .79$) reported confidence in their ability to teach students with disabilities than did either the ELED ($M = 2.82$, $SD = .78$) or SecED ($M = 3.19$, $SD = .97$) groups. SPED preservice candidates ($M = 4.15$, $SD = .75$) also felt that they had the ability and knowledge to develop materials that will engage and support students with special needs compared to both the ELED ($M = 3.02$, $SD = .96$) and SecED ($M = 3.49$, $SD = .95$) groups. In addition, the SPED ($M = 4.29$, $SD = .70$) group was significantly higher than the ELED ($M = 3.50$, $SD = .88$) and SecED ($M = 3.78$, $SD = .88$) groups in regard to their confidence in adapting the learning environment to support students with special needs. The SPED group ($M = 4.00$, $SD = .80$) also reported that they felt more comfortable with the terminology

used in special education than did either the ELED ($M = 2.97$, $SD = 1.05$) or SecED ($M = 3.20$, $SD = 1.09$) group.

Finally, the SPED group rated themselves significantly higher than did the ELED and SecED groups on the knowledge of teaching methods and strategies for working with students with multiple disabilities, developmental disabilities, speech and language impairments, autism, behavior disorders, learning disabilities, and at-risk. The SPED group ($M = 3.74$, $SD = .88$) also rated themselves higher than did both the ELED ($M = 3.05$, $SD = 1.02$) and SecED ($M = 3.43$, $SD = 1.04$) groups on confidence in evaluating the effectiveness of educational media.

The one area in which secondary teacher candidates reported a higher confidence level than did special education teacher candidates was in the teaching methods and strategies for the visual impairment (SPED, $M = 2.36$, $SD = 1.18$; SecED, $M = 2.79$, $SD = 1.29$; EDEL, $M = 2.33$, $SD = 1.09$).

Table 4.

Tukey HSD Post Hoc Comparisons for Special Needs Confidence Scale by Groups

Item #s	<u>Mean Difference</u>		
	SPED	ELED	SECED
1.	SPED		
	ELED	1.27***	
	SECED	.90***	.37**
2.	SPED		
	ELED	1.13***	
	SECED	.66***	.47***
3.	SPED		
	ELED	.17	
	SECED	.16	.34**
4.	SPED		
	ELED	.80***	
	SECED	.52***	.28*

5	SPED	1.03***	
	ELED	.80***	.23
	SECED		
6	SPED	.45**	
	ELED	.27	.72***
	SECED		
7	SPED	.50***	
	ELED	.24	.26*
	SECED		
8	SPED	.58***	
	ELED	.02	.57***
	SECED		
9	SPED	.46	
	ELED	.31	.15
	SECED		
10	SPED	.89*	
	ELED	.76	.12
	SECED		
11	SPED	.10	
	ELED	.05	.05
	SECED		
12	SPED	.38**	
	ELED	.08	.29*
	SECED		
13	SPED	.69***	
	ELED	.31*	.39**
	SECED		
14	SPED	.58***	
	ELED	.07	.51**
	SECED		
15	SPED	1.25**	
	ELED	.78*	.47
	SECED		
16	SPED	.82***	
	ELED	.58**	.24
	SECED		

17	SPED		
	ELED	.07	
	SECED	.32	.39*
18	SPED		
	ELED	.03	
	SECED	.43*	.46**
19	SPED		
	ELED	.47**	
	SECED	.32	.15
20	SPED		
	ELED	1.13***	
	SECED	1.13***	.00
21	SPED		
	ELED	1.02***	
	SECED	.58**	.44*
22	SPED		
	ELED	.80***	
	SECED	.73***	.07
23	SPED		
	ELED	.51**	
	SECED	.57***	.06
24	SPED		
	ELED	.34	
	SECED	.13	.21
25	SPED		
	ELED	.26*	
	SECED	.22	.04

Note: * $p < .05$; ** $p < .01$; *** $p < .001$

Discussion and Conclusion

This study revealed that special education teacher candidates reported higher confidence levels in their abilities to support students with special needs than did elementary or secondary teacher candidates in almost all categories. In addition, secondary teacher candidates reported higher

confidence levels than did elementary teacher candidates. These two findings have important implications for policy, practice, and further research.

Why do special education candidates report higher confidence levels? Our results indicated that preservice teachers working toward a teaching credential in the field of SPED reported higher confidence levels, which may be directly tied to the specialized training that they received from their course work, which included participation in field experiences within SPED classrooms. The curriculum of the ELED and SecED preservice teachers, in regard to special needs students, was not as comprehensive compared to the SPED curriculum. In special education courses, students with special needs are the focus, and the entire curriculum centers around meeting the needs of these students. In elementary and secondary credential programs, the focus is on teaching the subject matter content. Due to content and time limitations, the concepts and skills related to teaching students with special needs are not as heavily emphasized. Despite the inclusion of SPED topics into existing ELED and SecED courses, it seems insufficient to foster in teacher candidates the confidence that they need to be effective in the classroom with all students.

At the time that we conducted our research, California teacher preparation programs had begun to revise and adapt their curriculum based on state and federal mandates and in response to the evolving philosophical and legislative conceptualizations of appropriate education for students with special needs. According to the California State University Deans' Study (2004), preservice teachers teaching in GE classrooms had a low level of confidence in regard to their ability to teach or work with students with special needs. Teacher candidates must have confidence in their ability to teach special needs students or they will not be able to adequately implement the skills that they have learned for working with this student population.

Therefore, the college of education's ELED and SecED departments need to address these weaknesses by modifying the curricula for each of their teacher preparation programs to better prepare

teacher candidates to teach special needs students. It is imperative that the curriculum of our teacher preparation programs include teaching strategies critical to educating students with special needs. Because we are bound by state requirements to have a finite number of total course units allowed in a program, a new course whose sole purpose would be to focus on SPED cannot be added to the existing program. Therefore, our first step should be to augment the existing courses by integrating topics related to SPED into each of them.

Also of interest is the finding that SecEd teachers in this study expressed more confidence in their abilities than did their ELED teacher candidates. There are a number of possible reasons for this. First, it may be that SecED teacher candidates feel that they are less likely to encounter students with special needs in their classrooms because there is less mainstreaming at the secondary level. Alternatively, it may be that elementary teacher candidates at this institution receive less instruction in addressing the needs of students with special needs. Or it may be that the courses that emphasize ways to support students with special needs are frontloaded in the secondary credential program and not in the elementary credential program.

The findings have important implications for further research. Additional research should be conducted to compare elementary and secondary teacher candidates from other programs to determine whether there are similar patterns. Additional research should also be conducted to identify the underlying reasons for the lack of confidence by both the elementary and secondary teacher candidates. For example, the elementary credential program includes two separate 8-week, full-day fieldwork experiences, whereas the secondary program includes two 15-week, half-day experiences. A secondary teacher candidate interacts daily with over 100 students compared to the 40-60 students in the classrooms of elementary candidates.

Based on our findings, our first recommendation is that both ELED's and SecED's program structures be redesigned to include separate courses whose *sole* purpose is to educate preservice

teachers about theories and skills relevant to students with special needs. Our second recommendation concerns collaboration among departments. Too often, the education of special needs populations is approached as different and separate from that of general student populations, especially at a time when state and federal mandates dictate inclusion. Therefore, those developing preservice teacher preparation curricula would benefit from collaborating with SPED faculty. This could be accomplished by providing opportunities to collaborate through interdepartmental team teaching and partnerships in research and training. By witnessing these collaborative efforts, preservice teachers would be able to understand the connections between different disciplines and then apply this understanding to teaching practices in GE settings. This type of training will make the relevant concepts more concrete, enabling teachers to apply their understanding in the classroom setting to feel more confident.

Due to the increase in the number of students with special needs, it is imperative to equip all preservice teachers with the skills and strategies needed to work with this population as well as to cultivate a teaching philosophy that values inclusion. As such, future research should investigate the following questions: How do teachers' views and practices change once they graduate from a "sheltered" teaching program and enter the real world? For instance, are their views and practices mediated by classroom experience? Are these newly credentialed teachers, who support inclusion, better equipped to teach students with special needs than are those teachers who don't support inclusion? How do their experiences in the "real-world" setting of their own classrooms influence their confidence in teaching students with special needs? What additional measures can be taken by faculty in teacher preparation programs to support these teachers in their efforts to promote inclusion? These are important issues that need to be addressed in future research.

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Figure 1 (Cont.)

Special Needs Confidence Scale

- Circle the number on the scale, which most accurately reflects your relative confidence with the issues, listed below. (#1 represents the lowest level of confidence and #5 represents the highest level of confidence)

	Least				Most
1. I feel confident in my ability to teach students with disabilities.	1	2	3	4	5
2. I feel confident that I can develop materials that will meet the needs of special education.	1	2	3	4	5
3. I feel confident that I can provide my students with opportunities for success.	1	2	3	4	5
4. I am confident that I can adapt a learning environment so that special needs students can participate.	1	2	3	4	5
5. I feel comfortable with the terminology used in special education.	1	2	3	4	5
6. I feel confident that I can implement assessment procedures.	1	2	3	4	5
7. I feel confident that I can adapt materials to meet the needs of students with different learning speeds.	1	2	3	4	5
8. I feel confident that I can use new technologies with special needs students to enhance classroom participation and instruction.	1	2	3	4	5
9. I feel confident that I can make a change in my student's academic achievement level.	1	2	3	4	5
10. I am confident that I can make a change in a student's quality of life.	1	2	3	4	5
11. I am confident that I can make a positive change in a student's self-esteem.	1	2	3	4	5

12. I am confident that I can provide accurate information to parents about opportunities for their children. 1 2 3 4 5

13. I feel confident when evaluating the effectiveness of educational media for special needs students. 1 2 3 4 5

I know current teaching methods and strategies for working with students who have:

14. physical disability 1 2 3 4 5

15. multiple disability 1 2 3 4 5

16. developmental disability 1 2 3 4 5

17. hearing impairment 1 2 3 4 5

18. visual impairment 1 2 3 4 5

19. speech impairment 1 2 3 4 5

20. autism 1 2 3 4 5

21. seriously emotionally disorder 1 2 3 4 5

22. learning disability 1 2 3 4 5

23. at-risk 1 2 3 4 5

24. culturally diverse 1 2 3 4 5

25. general education 1 2 3 4 5