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Steven A. Crites Dr.

Northern Kentucky University, critess1@nku.edu

Bianca Prather-Jones

Northern Kentucky University

Rachelle M. Bruno

Northern Kentucky University

Stephen C. Walker

Northern Kentucky University

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Are Teaching Effectiveness and Retention Influenced by Various Routes to Special Education Certification?

Abstract

This study reviewed and interpreted the results of survey data that compared the self-perceived performance and self-efficacy on several dimensions tied to the CEC standards for teachers of students who access the individualized general education curriculum. Teachers prepared through traditional undergraduate approaches, post-baccalaureate certification options for general education teachers, and an alternative certification program were asked about job satisfaction, success rate on the Praxis II tests, and other factors related to retention. Although all three programs are designed with the same content standards established by the field (Council for Exceptional Children, 2003), there are some significant differences between them, e.g., the educational background of the students, the organization of the content into coursework, and the curriculum sequence and required field experiences. Survey results indicated some statistically significant differences among certification groups. Implications for program improvements are discussed.

Keywords

Teacher preparation, alternative certification, traditional undergraduate, success rate, PRAXIS II

Cover Page Footnote

Correspondence concerning this article should be addressed to Steven A. Crites, College of Education and Human Services, Northern Kentucky University, Highland Heights, KY 41099. (email: critess1@nku.edu)

Are Teaching Effectiveness and Retention Influenced by Various Routes to Special Education Certification?

The goal of public education in the United States is to improve the academic achievement of all students by providing each with the opportunity to obtain a high-quality education (U.S. Department of Education, 2002). However, providing a quality education requires an adequate number of competent teachers, and many U.S. school districts, including many in Kentucky, have been unable to acquire all of the trained teachers needed (U.S. Department of Education, (USDOE), 2006). Securing a sufficient supply of teachers trained to work with students with disabilities has been particularly problematic; and while the shortage of certified special educators has been a nationwide problem for over 20 years (Billingsley, 2002), the demand for these teachers has intensified in recent years due to increases in population and school enrollments (Johnson, Berg, & Donaldson, 2005), increases in the number of students being identified as having disabilities (McLeskey, Tyler, & Flippin, 2004), and high attrition rates of special education teachers (Billingsley, 2004). In fact, special educators are more likely to leave teaching than other teacher groups (Ingersoll, 2001), and many scholars argue that the retention of teachers – rather than training of additional ones – is key to solving the shortage problem in special education (Billingsley, 2004; Ingersoll, 2001; McLeskey, Tyler, & Flippin, 2004). For as Ingersoll (2001) states, “recruiting more teachers will not solve staffing inadequacies if large numbers of such teachers then leave” (p. 525).

Whatever the causes, the shortages in special education are greater than in any other area of certification (McLeskey, Tyler, & Flippin, 2004). The National Center for Education Statistics (NCES, 2006) reported that of Kentucky schools reporting teaching vacancies, 73% had

vacancies in special education and nearly 50% of these indicated that they “found it very difficult or were unable to fill” special education positions. In 2005, 587 teachers in special education positions in Kentucky public schools were not certified in this field (USDOE, 2006). Obviously, the shortage of special educators has serious implications for students with disabilities, many of whom are being taught by inadequately prepared people (Billingsley, 2004). In fact, these students are more likely than their higher performing peers to have teachers “who are inexperienced, uncertified, and less academically able. . . . [and] the achievement of these students suffers as a result” (Boyd, Goldhaber, Lankford, & Wyckoff, 2007, p 46).

In response to these teacher shortages, alternative licensing routes have been proposed and supported by federal policies and funding (Brownell, Sindelar, Bishop, Langley, & Seo, 2002; Rosenberg, Boyer, Sindelar, & Misra, 2007). While these programs vary across schools and states, alternative licensing programs generally circumvent traditional university teacher preparation in order to promote relatively quick entry into the teaching profession (Rosenberg & Sindelar, 2001). A key difference between traditional and alternative routes to certification is that teachers prepared via a traditional route complete all certification requirements prior to beginning to teach, while teachers in alternative programs begin teaching before completing certification requirements (Constantine, Player, Silva, Hallgren, Grider, & Deke, 2009). In 2005, 43 states plus the District of Columbia reported having alternative licensing programs, and 38,000 individuals entering teaching through an alternate route program were issued teaching certificates in 2004 (Feistritzer, 2005). Citing statistics from the 2003-2004 Schools and Staffing Survey, Boe, Cook, and Sunderland (2007) reported that 20% of teachers with one to three years of experience had completed an alternative program.

While alternative licensing programs seem to assist states in meeting the immediate needs of school districts, these programs have been criticized by some as being less rigorous than traditional teacher preparation programs and a deterrent to the development of a high-quality, stable workforce (Billingsley & McLeskey, 2004). However, existing research on alternative licensing programs is limited and shows mixed results (deBettencourt & Howard, 2004). For example, some studies suggest that alternatively licensed teachers have lower attrition rates than traditionally prepared teachers (Klagholz, 2000; Hughes & Sianjina, 2001), others indicate that the attrition rate of alternatively licensed teachers is much higher than that of traditionally prepared teachers (Berry, 2001; Fowler, 2003), and still others report highly variable rates of attrition (Darling-Hammond & Youngs, 2002). In addition, some studies of alternative certification programs claim that teachers prepared via these programs are less effective than traditionally prepared teachers (Jelmberg, 1996; Laczko-Kerr & Berliner, 2002; Nougaret, Scruggs, & Mastropieri, 2005), while others report that the majority of alternatively licensed teachers perform as well or better than their traditionally prepared peers (Constantine, et. al., 2009; Hughes & Sianjina, 2001). A report by the U.S. Secretary of Education (U.S. Department of Education, 2002) concluded that completion of a traditional teacher education program had no effect on student achievement. However, Darling-Hammond and Youngs (2002) refuted this claim, citing several relevant research studies that supported a link between teacher preparation and teacher effectiveness.

The contradictory findings in existing research on alternative and traditional licensing programs are not surprising, and can be largely attributed to the differences in the programs being studied. The design and quality of alternative certification programs vary significantly between and across states, with some providing “scant preparation while others involve

extensive coursework, pre- and in-service professional development, and school- and university-based induction support” (Darling-Hammond & Youngs, 2002, p.23). Comparative studies that distinguish programs by simply using the labels “traditional” and “alternative” would be far more informative if they included specific details about program components (Johnson, Berg, & Donaldson, 2005). In addition there is a critical need for follow-up studies with program graduates who are currently beginning teachers. Data derived from such feedback can be used to evaluate and modify teacher preparation programs (D’Aniello, 2008).

Northern Kentucky University provides three routes to teacher certification in special education, Learning and Behavior Disorders (LBD), in grades P-12. The first is a traditional undergraduate pre-service program that primarily enrolls typical college age students. This route requires that the candidate pursue teacher preparation in general education in either elementary, middle or secondary education along with preparation in special education. Academic admission requirements are fairly typical and include an overall GPA of no less than 2.5; an ACT score of 21 or higher; 48 semester hours of college credits completed to make application; letters of recommendation; approval of the Teacher Education Committee; and successful completion of specific courses or competency demonstration in computer literacy, speech and writing.

Full time faculty who also teach courses in the program complete field supervision for all practica. Candidates in the undergraduate program have four practicum experiences prior to student teaching, with one of these experiences devoted exclusively to special education. Dual certification requires student teaching experiences in general and special education, each eight weeks in length. Because special education certification in Kentucky in LBD is P-12, candidates also must have experiences across the age range that includes elementary, middle, and secondary school.

A second route to certification is available for candidates who are certified teachers in either elementary, middle or secondary education and wish to seek additional certification in special education. These individuals are typically in-service post baccalaureate and may also be enrolled in the Master of Arts in Education degree or the Rank I program. The admission requirements for this group vary depending on whether they are simultaneously pursuing a degree or not. At minimum, a candidate would need to have a teaching certificate in general education. Most of these candidates are in-service and working on a Kentucky Probationary certification while completing their preparation program.

Field supervision of candidates in this group is primarily completed during summer classes that include campus-based clinics that serve area children with mild disabilities. A culminating experience in lieu of student teaching is also required that includes classroom observations and a professional development project.

The third and newest route to certification is the Alternative Certification program in Special Education. This program enrolls career changers primarily from the Northern Kentucky and Greater Cincinnati area. Although these candidates come from a wide variety of backgrounds, the most frequent prior occupation of program participants is social work and other areas of the human services. Admission requirements for the Alternative Certification program in special education include a 2.5 overall GPA; a college level mathematics course with a minimum grade of C; scores on the general portion of the Graduate Record Examination (GRE) that meet college requirements for graduate study; letters of recommendation that attest to the candidates ability to effectively interact with children and youth; and a satisfactory interview with the Admission Committee. Because the Alternative Certification program in Special Education is an in-service only program, only candidates holding teaching positions and eligible

for a Kentucky Temporary Provisional Certification in Special Education (LBD) may be admitted to the program.

Supervision of this group is both field based and campus based. Like the post baccalaureate route to certification, the alternative certification candidates have a summer clinic experience that includes close daily supervision by a full time faculty member. Additionally, mentors are supplied by the university to provide classroom based field support and technical assistance (a state requirement). A culminating experience that includes classroom observations and a professional development project is required of all candidates at the conclusion of their program.

Clearly there is a need to prepare and retain an adequate number of special education teachers. Because of this, it is critical to determine if there is one type of program that is potentially more effective in achieving this goal.

Method

The intent of this study was to compare three routes to special education teaching certification in a comprehensive regional university in Kentucky. Teachers were asked questions related to job satisfaction, their perception of adequacy of preparation, success rates on the Praxis II tests, teaching context and other factors related to retention and attrition.

Respondents

Respondents included 14 who completed undergraduate certification in special education (20%), 40 who completed alternative certification in special education (57%), and 16 who completed post-baccalaureate, certification in special education (23%).

The demographics of the undergraduate completers are in stark contrast to the other programs. In this group, sixty percent of the survey responders were between the ages of 20 and

30 years old. Ninety-three percent were female and seven percent male. Among those that responded to the survey 100 percent were white.

Survey respondents who completed the alternative certification program included sixty-six percent between the ages of 26 and 40 years old. Seventy-four percent were female and 26% male. Five percent were African American, 3% percent were Hispanic/Latino, and 92% were white.

Of those completers in the post-baccalaureate program responding to the survey, fifty-six percent were between 36 and 45 years old. One hundred percent were female, and 100% were white.

Survey Instrument

The survey consisted of 67 questions, divided into four sections. The first section contained 11 questions and asked respondents to consent to the study and provide demographic information including questions about program and year completed, age, gender, race, reason for teaching, number of years teaching, number of years teaching special education, and whether or not they were still teaching and reason(s) for leaving the profession if not still teaching.

The 21 questions in the second section focused on current position. Items included current school setting, name of school, type of classroom, number of students on caseload, disability classification of students, average class size, and percentage of students on free and reduced lunch. Respondents were also asked to describe current school settings. Using a Likert-type scale, ranging from strongly agree (4) to not applicable (0), respondents were asked to rate their school setting. Items included information about school morale, administrative support, collaboration, communication, and professional development.

The third section was comprised of ten questions asking the respondents to describe themselves. Questions in this section consisted of self-ratings of teaching ability, support system and stress management. Three questions in this section (questions 41-43) required participants to rank their top 3 choices.

The final section of 25 questions asked participants about their certification program. For 23 of the 25 questions, completers were asked to rate the statement on the same Likert-type scale described above. Items included questions addressing selected CEC competencies. The final three questions were open-ended format. Participants noted what they were most prepared for, least prepared for and any additional comments. Questions from sections III and IV of the survey are presented in the appendix.

Procedures

After receiving approval from the University Institutional Review Board, one-hundred-and-ninety recent (5 years or less) special education certification program graduates were identified and invited to participate in the study. The majority of completers were contacted via electronic mail (176); the remaining (14) were sent letters in the mail. Each of the completers was sent a letter explaining the purpose of the study and given a link to the survey placed on *SurveyMonkey*©

Of the 190 contacted, 40 of those letters sent by electronic mail were returned due to incorrect or out-of-date electronic mail addresses, and one letter was returned due to an outdated mailing address. These completers could not be located.

Participation in this study was voluntary, and data were collected anonymously. Of the 149 graduates who received the survey, 70 completed it. This represented a response rate of 47%.

Data Analysis

Data from 70 respondents were included in the analysis. Answers from the first two sections of the survey were analyzed and reported as percentages. Data from the third and fourth sections of the survey were analyzed using a one-way analysis of variance (ANOVA).

Results

When asked “Are you still teaching?” only one individual (7%) in the undergraduate program indicated “no”. One hundred percent of the individuals who completed the survey who finished the post-baccalaureate certification program and the alternative certification program indicated they were still teaching.

Results from five additional questions from the first two sections of the survey reveal differences among the training programs. When asked how many times they took the Praxis II before reaching the required score, 93% of those in the undergraduate program reported passing on their first attempt, while 7% passed with two attempts. Among those in the post-baccalaureate group, 87.5% reported passing on their first attempt and 12% on their second attempt. In the alternative certification group, 82.5% reported passing on their first attempt, while 17.5% required two attempts to pass.

When asked to identify what level they are currently teaching, 66.7% of undergraduate program completers indicated teaching in elementary settings, 25% in middle school settings, and 8.3% in high school settings. Sixty percent of the post-baccalaureate group was teaching in elementary settings and 40% in high school settings. Twenty eight percent of the alternative certification group was teaching in elementary settings, 23% in middle school settings, 46% in high school settings, and 3% were teaching in alternative school settings.

In reporting current teaching assignments, 8% of those from the undergraduate program were in self-contained settings, 23% in resource rooms and collaboration with general education, 39% co-teaching in general education classrooms, and 31% working as general educators. For the post-baccalaureate group, 77% reported working in resource rooms with collaboration with general education and 23% co-teaching in general education classrooms. For the alternative certification group, 11% were working in self-contained settings, 65% in resource room and collaboration with general education, 21% co-teaching in general education classrooms and 3% teaching in general education classrooms.

Analysis revealed statistically significant differences in four out of twenty-nine questions in sections 3 and 4 of the survey. ANOVA summary data are presented in Table 1. Group means are presented in Table 2.

Table 1

ANOVA Summary Table

Question	df	F	Sig.
Using skills developed in my program	2	4.223	.019*
Well prepared regarding legal issues	2	3.110	.001*
Well prepared to address impact on families	2	4.573	.014*
Well prepared to develop and interpret information from informal assessments	2	3.248	.045*

*denotes significance ($\mu = .05$)

Table 2

Means and (Standard Deviations) by Group

Question	Undergrd	Post-Bac	Alt.Cert.
1. I am using the skills that I developed in my special education program	3.15 (.38)	3.31 (.48)	3.56 (.50)
2. I was well prepared regarding legal issues in special education	2.77 (.44)	2.69 (.94)	3.33 (.53)
3. I was well prepared to address the impact of disability on families and schools	3.08 (.64)	2.94 (.77)	3.44 (.50)
4. I was well prepared to develop, administer and interpret information from informal assessments	3.15 (.56)	2.88 (.61)	3.32 (.57)

When comparing the group means for responses to the question “I am using the skills that I developed in my special education program” statistically significant differences emerged ($F = 4.223, p = .019$). The mean score for the undergraduate group was 3.15, the mean for the post-baccalaureate group was 3.31, and the mean for the alternative certification group was 3.56. Results were similar on the question “I was well prepared regarding legal issues in special education” ($F = 3.110, p = .001$). The mean score for the undergraduate group was 2.77, the mean for the post-baccalaureate group was 2.69, and the mean for the alternative certification group was 3.33.

“I was well prepared to address the impact of disability on families and schools” was the third question that yielded statistically significant results ($F = 4.573, p = .014$). The mean score for the undergraduate group was 3.08, the mean for the post-baccalaureate group was 2.94, and

the mean for the alternative certification group was 3.44. The last question yielding statistically significant results was the item “I was well prepared to develop, administer and interpret information from *informal* assessments” ($F = 3.248, p = .045$). The mean score for the undergraduate group was 3.15, the mean for the post-baccalaureate group was 2.86, and the mean for the alternative certification group was 3.32.

Discussion

The results of this study indicated that attrition was highest among individuals completing the undergraduate certification program. These results are consistent with the findings of Klagholz (2000) and Hughes and Siajina (2001). Although this attrition rate is quite low, it may be more a result of the age of the completers rather than program completed. Many undergraduate completers may begin their teaching career after college graduation and then leave the workforce to begin a family. In fact, this participant listed “family responsibilities” as a reason for no longer teaching.

Additionally, nearly 1/3 of those completing the undergraduate program (31%) were teaching, but not in special education. All of our undergraduate completers are dually certified in general and special education. This move away from teaching special education seems to reflect the findings of Billingsley (2004) and contributes to the on-going shortage of certified special education teachers in Kentucky.

The undergraduate respondents reported passing the Praxis II on the first attempt at a higher rate (93%) than any other group. Post-baccalaureate candidates reported passing the Praxis II on their first attempt at 87.5%. This rate was lower than the undergraduate group, but higher than the alternative certification group. (82.5%). These differences may be due to the course sequence of each program and participation in faculty provided Praxis II review sessions.

The undergraduates usually take the Praxis II shortly after completing the special education block, an entire semester of special education content; moreover, they attend the Praxis II review session because it included as part of the block coursework. Those in the post-baccalaureate group take the courses required for special education certification in a loosely prescribed sequence and often do not take the graduate level introduction to special education as the requirement has typically been met for those who already hold teaching certification. They are less likely to attend a Praxis II review session. The alternative certification group takes course work in a prescribed format, but they are also not required to attend a Praxis II review session. Additionally, this group has no previous educational coursework or experience on which to draw.

Statistically significant differences were found in four of the questions that asked about perceived skills and training program. In each case, respondents in the alternative certification group rated themselves higher than respondents in other groups.

Ratings for the questions "I am using the skills that I developed in my special education program," "I was well prepared regarding legal issues in special education," "I was well prepared to address the impact of disability on families and schools," and "I was well prepared to develop, administer and interpret information from *informal* assessments" were statistically significant. The alternative certification group rated themselves higher than either of the other two groups on each of these questions.

It appears this group made a stronger connection between coursework and practice. This connection may have been strengthened because they were in-service teachers while taking courses for certification. These individuals immediately applied learned skills in the classroom.

These findings are consistent with those of Constantine, et al. (2009) and Hughes and Sianjina (2001), but seem to contradict findings by Nougaret, Scruggs, and Mastropieri (2005).

These researchers found candidates being trained in alternative certification programs rated themselves as competent as those trained in traditional certification programs, but classroom observations revealed significant differences in skill level, with traditional certification candidates performing much better. However, the traditionally trained candidates had completed their certification program while the alternative certification candidates had only completed six hours of coursework (Nougaret, Scruggs, & Mastropieri, 2005). Differences may have been a result of where candidates were in their program, rather than the type of program attended (traditional or alternative certification). The candidates surveyed for the present survey had all completed their certification programs and were fully certified as special educators.

Overall, completers of all three of our special education certification programs seem to feel well-prepared to handle the changing role of special educators. Unlike some of the reviewed research (e.g., Barry, 2001; Fowler, 2003; Jelmberg, 1996; Laczko-Kerr and Berliner, 2002), our alternative certification completers appear to have skills equal to those completers of both the undergraduate program and the post-baccalaureate program.

D'Aniello (2008) suggested using perceptions of completers to help to revise and improve program components. A closer examination of the data from all three programs pointed out weaknesses in the areas of language development, using alternative communication devices and working with students who are English language learners. Program faculty will consider these data when discussing changes to our special education certification programs.

Data presented in this paper come directly from completers of our program. While candidate self-perception is important, it only offers one viewpoint. Perhaps getting the view of

principals (or other administrators) at local schools where our completers are teaching may also give us another perspective of skill level and teaching effectiveness that would be helpful to program improvement. Multi-factored evaluation is important when working with individuals with disabilities and may also be helpful in program evaluation.

References.

- Berry, B. (2001). No shortcuts to preparing good teachers. *Educational Leadership*, 58(8), 32–36.
- Billingsley, B. (2002). *Special education teacher retention and attrition: A critical analysis of the literature*. Gainesville, FL: Center of Personnel Studies in Special Education.
- Billingsley, B. S. (2004) Special education teacher retention and attrition: A critical analysis of the research literature. *Journal of Special Education*, 38, 39-55.
- Billingsley, B. S. & McLeskey, J. (2004). Critical issues in special education teacher supply and demand: Overview. *Journal of Special Education*, 38, 2-4.
- Boe, E. E., Cook, L. H., & Sunderland, R. J. (2007). The supply, qualifications, and attrition of teachers from traditional and alternative routes of preparation (Panel on NCLB Policy and Research on Alternative Route Preparation). Paper presented at the 2007 OSEP Project Directors Conference, Washington, DC. Philadelphia: University of Pennsylvania, Graduate School of Education, Center for Research and Evaluation in Social Policy.
- Boyd, D., Goldhaber, D., Lankford, H., & Wyckoff, J. (2007). The effect of certification and preparation on teacher quality. *The Future of Children*, 17(1), 58.
- Brownell, M. T., Sindelar, P. T., Bishop, A.G., Langley, L. K., & Seo, S. (2002) Special education teacher supply and teacher quality: The problems, the solution. *Focus on Exceptional Children* 35 (2), 1-16.
- Constantine, J., Player D., Silva, T., Hallgren, K., Grider, M., and Deke, J. (2009). *An Evaluation of Teachers Trained Through Different Routes to Certification, Final Report* (NCEE

- 2009 - 4043). Washington, DC: National Center for Education Evaluation and Regional Assistance, Institute of Education Sciences, U.S. Department of Education.
- Council for Exceptional Children. (2003). *What every special educator must know: Ethics, standards, and guidelines for special educators (5th ed)*. Reston, VA: Author.
- D'Aniello, S. (2008). Beginning teacher follow-up studies: A critical component of teacher education program evaluation and policy decisions. *Intervention in School and Clinic*, 43(5), 309-312.
- Darling-Hammond, L., & Youngs, P. (2002). Defining "highly qualified teachers": What does "scientifically-based research" actually tell us? *Educational Researcher*, 31(9), 13-25.
- deBettencourt, L.U. & Howard, L. (2004). Alternatively licensing career changers to be teachers in the field of special education: their first-year reflections. *Exceptionality* 12, (4), 225-238.
- Feistritzer, E. (2005). *State policy trends for alternative routes to teacher certification: A moving target*. Presented at Learning Point Associates' 2005 Conference on Alternative Certification, Washington D.C.
- Fowler, R.C. (2003). The Massachusetts signing bonus program for new teachers: A model of teacher preparation worth copying? *Education Policy Analysis Archives*, 11(13). Retrieved March 12, 2009 from <http://epaa.asu.edu/epaa/v11n13/>.
- Hughes, L. & Sianjina, R. (2001). *Alternative Routes to Certification: Report to the Delaware Department of Education*. Delaware Center for Teacher Education.
- Ingersoll, R.M. (2001). Teacher turnover and teacher shortages: An organizational analysis. *American Educational Research Journal*, 38(3), 499-534.

- Jelmberg, J. (1996). College-based teacher education versus state-sponsored alternative programs. *Journal of Teacher Education*, 47(1), 60-66.
- Johnson, S., Berg, J., & Donaldson, M. (2005). *Who stays in teaching and why: A review of the literature on teacher retention*. The Project on the Next Generation of Teachers: Harvard Graduate School of Education.
- Klagholz, L. (2000). *Growing better teachers in the garden state: New Jersey's "alternate route" to teacher certification*. Washington, DC: Thomas B. Fordham Foundation.
- Laczko-Kerr, I., & Berliner, D.C.. (2002). The effectiveness of "Teach for America" and other under-certified teachers on student academic achievement: A case of harmful public policy," *Education Policy Analysis Archives*, 10(37). Retrieved March 12, 2009 from <http://epaa.asu.edu/epaa/v10n37/>.
- McLeskey, J., Tyler, N., & Flippin, S. (2004). The supply and demand for special education teachers: A review of research regarding the nature of the chronic shortage of special education teachers. *Journal of Special Education*, 38(1), 5-21.
- National Center for Education Statistics. (2006). *Schools and Staffing Survey, Public School Data File, 2003-04*. Available: <http://nces.ed.gov/surveys/sass>.
- Nougaret, A.A., Scruggs, T.E., & Mastropieri, M.A. (2005). Does teacher education produce better special education teachers? *Exceptional Children*, 71 (3), 217-229.
- Rosenberg, M. S., Boyer, K., Sindelar, P. T., & Misra, S. (2007). Alternative route programs for certification in special education: Program infrastructure, instructional delivery, and participant characteristics. *Exceptional Children*, 73(2), 224-241.
- Rosenberg, M. S., & Sindelar, P. T. (2001). *The Proliferation of Alternative Routes to Certification in Special Education: A Critical Review of the Literature*. Arlington, VA:

The National Clearinghouse for Professions in Special Education, The Council for Exceptional Children. Available: www.special-ed-careers.org.

U.S. Department of Education (2002). *Meeting the highly qualified teachers challenge: The secretary's annual report on teacher quality*. Washington, DC.

U.S. Department of Education (2006). Office of Special Education Programs, Data Analysis System (DANS). *Personnel (in fulltime equivalency of assignment) employed to provide special education and related services for children with disabilities*. Available: <http://www.ideadata.org>.

Appendix

Survey Questions – Sections III and IV

Section III

- 33. I feel confident in my ability to teach
- 34. I often feel disorganized in my classroom
- 35. Teaching is harder than I expected
- 36. I feel every day that I become a better teacher
- 37. I telephone, email, or talk with other special ed teachers to share ideas and gain support
- 38. I contact individuals who were my classmates in my special education program for assistance and support
- 39. I feel my responsibilities are reasonable and manageable
- 40. What aspects of the job are the most stressful?
- 41. How do you manage your job-related stress?
- 42. What aspects of the job are the most rewarding?

Section IV

- 43. I am using the skills that I developed in my special education program
- 44. I was well prepared regarding legal issues in special education
- 45. I was well prepared to address the impact of disability on families and schools
- 46. I was well prepared regarding the social emotional characteristics of students with exceptional learning needs
- 47. I was well prepared regarding the educational implications of the characteristics of students with exceptional learning needs
- 48. I was well prepared regarding how cultural perspectives influence the relationships among families

and schools when it comes to learning

49. I was well prepared regarding strategies to address individual learning needs
50. My program included a variety of evidence-based strategies to address the needs of students with various learning needs
51. My program included a variety of strategies to improve students' thinking and problem solving skills
52. My program prepared me to use a variety of non-aversive techniques to control behavior and maintain the attention of my students
53. I was well prepared regarding classroom management strategies
54. I was well prepared regarding typical language development and how that might differ for students with exceptional learning needs
55. I was well prepared regarding the use of alternative and augmentative communication systems
56. I was well prepared to write Individualized Education Plans
57. I was well prepared to collaborate instructional planning with collaboration
58. I was well prepared to administer and interpret information from formal assessments
59. I was well prepared to develop, administer and interpret information from informal assessments
60. I was well prepared to reflect and adjust my practices based on student performance
61. My program encouraged me to continue my professional growth throughout my career
62. I was well prepared in models and strategies of collaboration and consultation
63. I was well prepared to communicate effectively with families
64. I was well prepared to teach students who speak English as a second language
65. I was least prepared for the following:
66. I was most prepared for the following

67. Please provide any additional comments on your special education program