

## ***Preservice General Education Teachers' Attitudes and Knowledge of Special Education***

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### ***Abstract***

The purpose of this study was to determine the attitudes and knowledge acquired by preservice general education teachers regarding students with disabilities. Participants included fifty-six general education preservice teachers in their student teaching semester at the University of North Dakota. A three part survey (i.e., attitudes, perceived knowledge, and application of knowledge of special education) was conducted. Participants' responses indicated that 1) preservice teachers' attitudes toward inclusion of students with disabilities were highly favorable, 2) preservice teachers' attitudes were least favorable in the area of managing behavior, 3) preservice teachers' attitudes were marginal in managing time and overcoming negative attitudes of others, 4) preservice teachers' perceptions of knowledge in the area of differentiation (e.g., assessment, instruction) were highly favorable, 5) preservice teachers' perceptions of knowledge in the areas of law, procedures, and severe disabilities was marginal, and 6) preservice teachers' application of knowledge in the area of characteristics of and accommodations for students with learning disabilities and attention deficit hyperactivity disorder was extremely favorable.

### ***Preservice General Education Teachers' Attitudes and Knowledge of Special Education***

The federal mandates set forth by the Individual with Disabilities Act (IDEA) and No Child Left Behind (U.S. Department of Education, n.d.) have supported the practice of educating students with disabilities in regular education classrooms. In 2002-2003, approximately 6.4 million students had special education individualized education programs (IEPs) and received special education services. According to the U.S. Department of Education (2007) approximately half of all students with disabilities in 2004–2005 spent 80 percent or more of their day in a general education classroom. As more and more students with disabilities are educated in the general education classroom, it is imperative that general educators have a positive attitude toward the education of students with disabilities and the knowledge and skills to effectively meet the needs of all students.

Research suggests that the attitudes and beliefs of general educators and acquisition of knowledge and skills toward educating students with disabilities are concerns that must be addressed in teacher preparation programs (deBettencourt, 1999; Henning & Mitchell, 2002; Silverman, 2007). In a summary of 28 surveys of general educators' perceptions on inclusive practices, Scruggs and Mastropieri (1996) found that two-thirds of general educators believed that inclusion is beneficial for students with disabilities. However, one-third of the 10,560 teachers reported that they did not have training or resources to actually implement inclusion successfully. Cook (2002) discovered that when pre-service teachers had positive feelings toward inclusion the implementation of inclusion practices was more evident.

In a survey of 228 middle school mathematics teachers, it was concluded that many of the respondents lacked an understanding of instructional strategies to strengthen the mathematical learning of students who had learning disabilities (DeSimone & Parmar, 2006). In another survey study (n=59) that measured the use of instructional strategies within the general education classroom and attitudes about inclusion, findings indicated that general educators needed more attitude and awareness training concerning students with disabilities and the number of instructional strategies used by general educators increased with the number of special education courses taken and the number of hours spent with special educators (deBettencourt, 1999). Other issues that have been identified as challenges faced by teachers include having sufficient resources, having adequate planning time and receiving appropriate training (Idol, 2002).

Research suggests that pre-service teacher preparation programs do not provide adequate training to meet the needs of students with disabilities in the inclusive setting (DeSimone & Parmar, 2006; Rao & Lim, 1999; Smith & Smith, 2000). Preparing general education teachers to effectively teach in inclusive classrooms is an issue faced by numerous teacher education programs (Blanton, Griffin, Winn, & Pugach, 1996; Gerent, 2000; Peterson & Beloin, 1998; Smith, Palloway, Patton, & Dowdy, 2007; Villa, Thousand, & Chapple, 1996). Historically, separate general and special education teacher preparation programs have not provided preservice teachers with training and experience to develop the knowledge and skills needed for inclusion of students with disabilities (Villa, Thousand, & Chapple, 1996). However, some teacher training programs have developed innovative training models that have merged general and special education curricula and field-based experiences but few have assessed the effectiveness of the initiative or learning outcomes of their students.

One program, called Project ACCEPT (Achieving Creative and Collaborative Educational Preservice Teams), attempted to determine the effectiveness of student learning (Laarhoven, Munk, Lynch, Wylan, Dorsch, Zurita, Bosma, & Rouse, 2006). The primary goals of the project were to prepare pre-service educators for inclusive education and to encourage collaboration across disciplines through participation in a course entitled "Collaborative Teaching in Inclusive Settings." Eighty-four elementary, secondary and special education pre-service teachers participated in the project. The project was evaluated by comparing the performance of participants (i.e., the experimental group) with that of students enrolled in a section of the traditional course (i.e., control group). Surveys were used to assess student dispositions toward inclusive education and curricular probes were used to assess pre and post-test competencies in implementing strategies. Results of the survey indicated that students participating in the project made more positive ratings than the students in the control group, and the most beneficial aspect of their experience was collaboration with students from other disciplines. Probe scores increased

from pre to post test for all groups, with significantly more growth for students enrolled in the project.

The purpose of this study was to identify the perceptions of pre-service teachers about their attitudes and knowledge regarding students with disabilities, and to find out to what extent the same pre-service teachers could apply their knowledge of students with disabilities. The study was confined to one university teacher education program where a curriculum integration project between general education and special education faculty was about to be implemented. The purpose of the curriculum integration was to prepare pre-service general education teachers in regards to working with students with disabilities in their future classrooms. The results of the current study provided a baseline against which the responses of future pre-service teachers completing the same program.

### ***Method***

#### **Participants and Setting**

Participants in this study included 56 general education preservice teachers attending a university in the Upper Midwest. All participants were enrolled in their student teaching semester. The general education majors represented in this study included: early childhood education (n = 5), elementary education (n = 30), middle level education, and secondary education (n = 21).

#### **Instrumentation**

Participants completed the *Preservice Teacher Survey of Attitudes and Knowledge of Students with Disabilities Survey* (adapted and modified with permission from Dr. Shaila Rao at Western Michigan University). Demographic information was obtained at the beginning of the survey relative to degree majors and minors. The survey included three sections: Section 1 Attitudes, Section 2 Perceived Knowledge, and Section 3 Application of Knowledge. Section 1 of the survey was comprised of 18 items related to attitudes towards students with disabilities, while Section 2 consisted of 20 items that pertained to perceived knowledge students with disabilities and various aspects of special education. Participants rated items in Sections 1 and 2 using a Likert scale delineated as 5 = *Strongly Agree*, 4 = *Agree*, 3 = *Neutral*, 2 = *Disagree*, 1 = *Strongly Disagree*. Section 3 included four open-ended questions relative to application of knowledge about special education. Questions in this section ascertained participants' ability to identify learner characteristics in order to make appropriate accommodations. Coefficient alphas for internal consistency were .75 for Section 1, .93 for Section 2, and .54 for Section 3.

#### **Data Collection and Analysis**

A quantitative research design was implemented for this study. Participants anonymously completed the survey instrument during one senior seminar session, which is taken concurrently with their student teaching experience. The survey took approximately 20 minutes to complete, and the overall response rate was 100% which is well above the acceptable response rate of 50% (Babbie, 1990).

Descriptive statistics for Sections 1 (attitudes) and 2 (perceived knowledge) were reported as percentages for participants' ratings of each item. Data were statistically analyzed for the five highest percentage items in both sections, which were rated as *strongly agree* or *agree*. Conversely, the five lowest percentages items (i.e., rated as *strongly disagree* or *disagree*) were also analyzed.

For Section 3, application of knowledge, each open-ended question was evaluated by a minimum of two raters (i.e., special education faculty) using a holistic scoring rubric with a three-point scale for responses present and accuracy of responses (note that the open-ended questions asked the respondent to list three responses for each question) (see Table 1). Reliability of rating scores was achieved with an inter-rater reliability of .98. Descriptive statistics for this section were also reported as percentages for individual survey items. Data were analyzed using the percentage of participants who received a rubric rating of 3 or 2.

**Table 1. Holistic Scoring Rubric**

<b>3</b>	<ul style="list-style-type: none"> <li>• 3 responses present</li> <li>• 3 accurate responses</li> </ul>
<b>2</b>	<ul style="list-style-type: none"> <li>• 2-3 responses are present</li> <li>• 2 responses are accurate</li> </ul>
<b>1</b>	<ul style="list-style-type: none"> <li>• 1-3 responses are present</li> <li>• 1 response is accurate</li> </ul>
<b>0</b>	<ul style="list-style-type: none"> <li>• 0 responses are present</li> <li>• 0 responses are accurate</li> </ul>

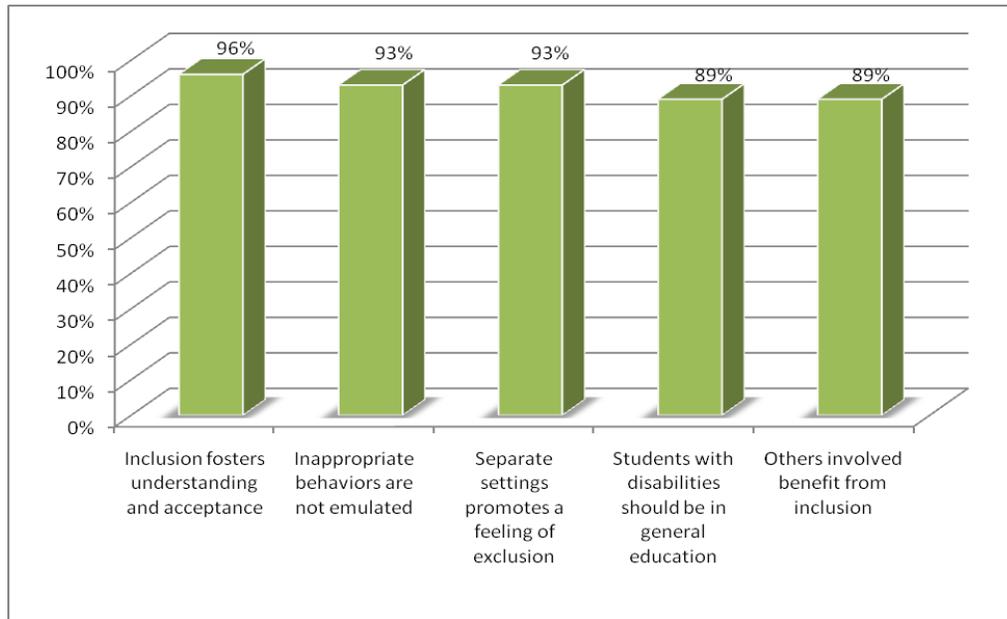
### *Results*

The survey results were categorized into three areas: 1) general education pre-service teachers' attitudes regarding students with disabilities, 2) general education pre-service teachers' perception of their knowledge regarding students with disabilities, and 3) the application of general education pre-service teachers' knowledge regarding students with disabilities.

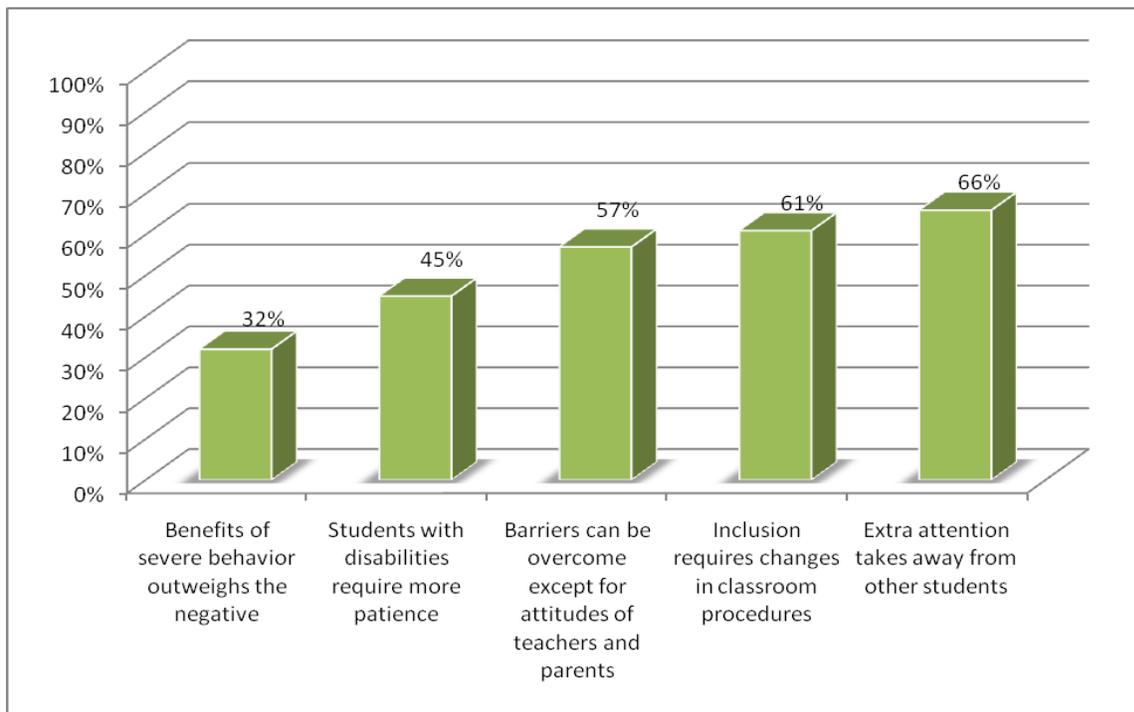
#### **Attitudes Regarding Students with Disabilities**

The five highest (strongly agree/agree) and five lowest (strongly disagree/disagree) rated items in the category of "attitudes regarding students with disabilities" are reported in Figures 1 and 2. A majority of the general education pre-service teachers surveyed (96%) rated their attitudes highest (strongly agree/agree) in the category of *inclusion fosters understanding and acceptance*. Other categories that were rated high included *inappropriate behaviors are not emulated* (93%), *separate settings promote a feeling of exclusion* (93%), *students with disabilities should be in general education* (89%), and *others involved benefit from inclusion* (89%).

**Figure 1. Attitude Items Receiving Highest Ratings**



**Figure 2. Attitude Items Receiving Lowest Ratings**

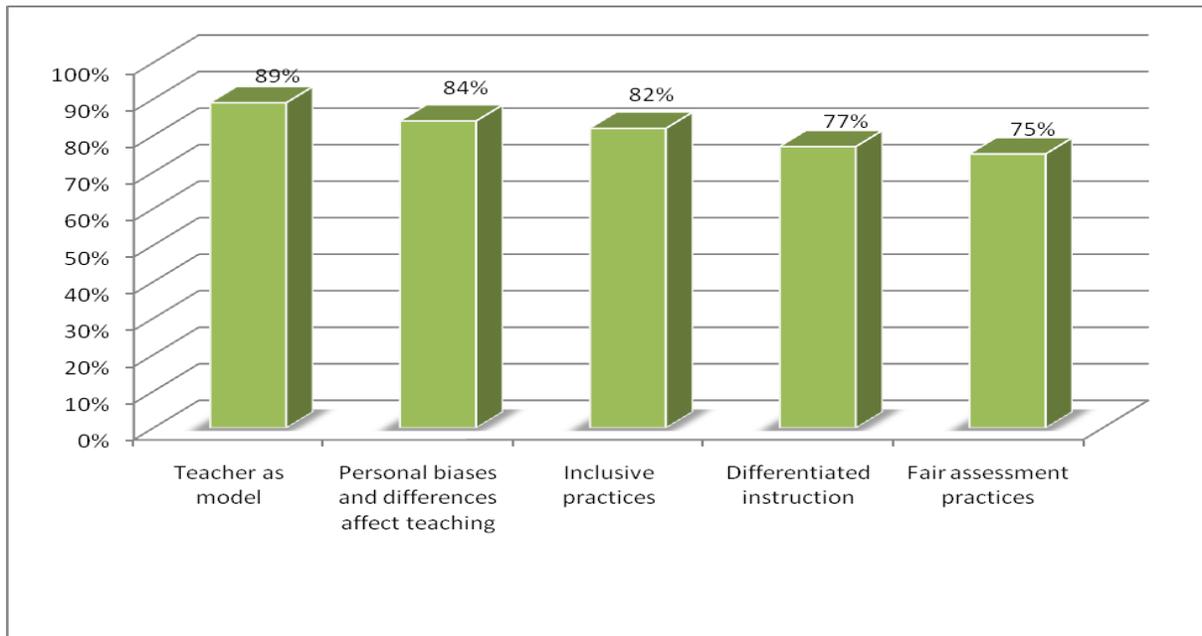


A majority of the general education pre-service teachers surveyed (32%) rated their attitudes lowest (strongly disagree/disagree) in the category of *the benefits of having a student with severe behaviors in the classroom outweigh the negative*. Other categories that were rated low included *students with disabilities require more patience* (45%), *barriers can be overcome except for the attitudes of teachers and parents* (57%), *inclusion requires changes in classroom procedures* (61%), and *extra attention takes away from other students* (66%).

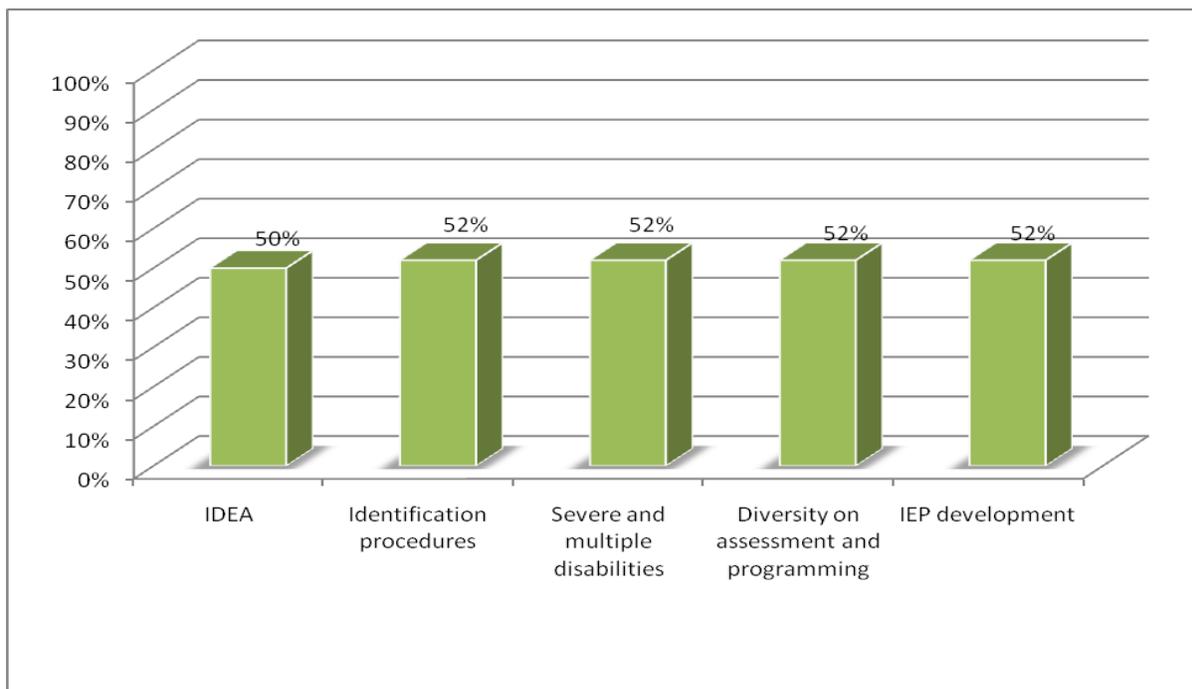
### Perceived Knowledge Regarding Students with Disabilities

The five highest (strongly agree/agree) and five lowest (strongly disagree/disagree) rated items in the category of “perceived knowledge regarding students with disabilities” are reported in Figures 3 and 4. A majority of the general education pre-service teachers surveyed (89%) rated their perceived knowledge highest (strongly agree/agree) in the category of *teacher as model*. Other categories that were rated high included *personal biases and differences affect teaching* (84%), *inclusive practices* (82%), *differentiated instruction* (77%), and *fair assessment practices* (75%).

**Figure 3. Perception of Knowledge Items Receiving Highest Rating**



**Figure 4. Perception of Knowledge Items Receiving Lowest Ratings**

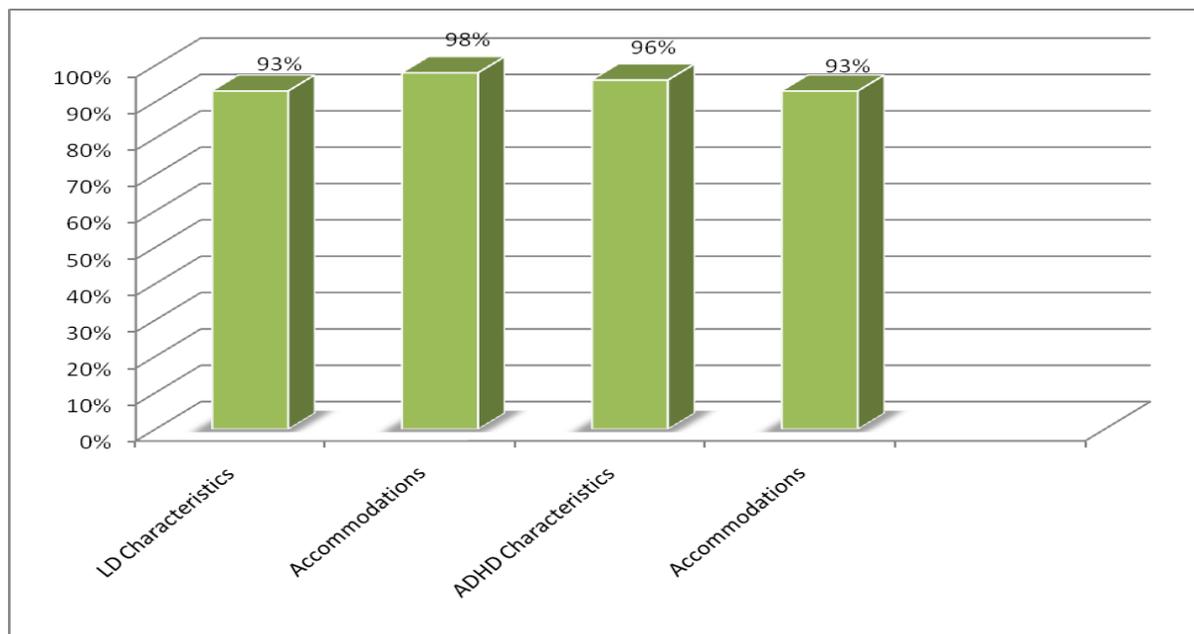


A majority of the general education pre-service teachers surveyed (50%) rated their knowledge lowest (strongly disagree/disagree) in the category of the *Individual with Disabilities Education Act*. Other categories that were rated low included *identification procedures* (52%), *severe and multiple disabilities* (52%), *diversity on assessment and programming* (52%), and *IEP development* (52%).

#### **Application of Knowledge Regarding Students with Disabilities**

There was a total of four application questions in an essay format in the last section of the survey. Figure 5 shows the percentage of general education pre-service teachers surveyed who scored a “4” or “3” (an acceptable response) on each of the four questions. Ninety-three percent of those surveyed had an acceptable response for question number one which referred to the characteristics of students with learning disabilities. Question two, regarding accommodations for students with learning disabilities, had 98% of those surveyed earning an acceptable response. In regards to the characteristics of students with ADHD (question number three), 96% of those surveyed earned an acceptable response. Similarly, question number four regarding accommodations for students with ADHD, had 93% of those surveyed earning an acceptable response.

**Figure 5. Application of Knowledge Items**



### *Discussion*

In the category of “attitudes” the five highest rated items were similar in that they referred to the topic of inclusion. As we looked at the content of these survey items that were rated highest, we concluded that the “theme” of the five items was *inclusion fosters understanding and acceptance*. These findings are similar to the studies by Scruggs and Mastropeiri (1996) and Cook (2002) where they found that the students they surveyed believed that inclusion is beneficial for students with disabilities. Thus, the majority of pre-service candidates rated themselves as having positive attitudes about including students with disabilities in their classrooms.

Likewise, we looked at the five lowest rated items in the category of “attitudes” and found they were similar in that they all referred to the topic of behavior. We identified the theme of the five items as *the benefit of having a student with severe behaviors in the classroom outweighs the negative*. Even though two thirds of the candidates rated themselves as agreeing with this theme, a third of the pre-service candidates indicated that having students with severe behavior problems in their classrooms would have a negative impact.

In the category of “perceived knowledge,” the candidates in this study perceived their knowledge strongest in the areas of inclusive practices and differentiated instruction. This is contrary to the studies by Scruggs and Mastropieri (1996) and Cook (2002) where the general education candidates believed they did not have the training or resources to implement inclusion successfully.

The fact that a majority of the candidates surveyed in this study rated their attitudes and perceived knowledge as positive regarding students with disabilities is encouraging. Likewise, high scores in the area of “application of knowledge” are also encouraging. In the third and final category, “application of knowledge,” a majority of the pre-service candidates were able to respond to case

study scenarios by 1) describing the characteristics of the student's disability and its impact on the student's classroom functioning, and 2) describing the modifications they, as the classroom teacher, would implement to meet the needs of the student represented in the case study.

As a special education faculty, we continue to explore ways to successfully infuse special education content into a general education curriculum that addresses students with disabilities. Although some positive strides have been made through our efforts at curriculum integration, as was indicated in the results of the survey, we realize that an even greater emphasis on having students with disabilities in general education classrooms is needed. It is our hope that our general education colleagues will not only work side by side with us in this endeavor, but will see the benefits of their participation. Our long range goal is to see increased ownership and participation by general education in the curriculum integration process.

### ***Recommendation for Future Research***

There are four program areas in the teacher education department at the University of North Dakota: early childhood, elementary, middle level, and secondary. Of these four program areas, only early childhood and elementary are required to take an introduction to special education course (i.e., Education of the Exceptional Student). The middle level and secondary program areas try to integrate content regarding students with disabilities into coursework, although this is often done in a hit and miss manner. It would be interesting to see if there is a difference between the candidates who are required to take the course in special education and those candidates who are not required to do so. Thus, the survey will continue to be given to pre-service general education candidates during the student teaching semester. Once a sufficient number of candidates have been surveyed, an analysis will be completed to see if there are significant differences among the attitudes, perceived knowledge, and application of knowledge between the early childhood and elementary candidates versus the middle level and secondary candidates.

### ***References***

- 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*(3), 262-277.
- Babbie, E. (1990). *Survey research methods* (2<sup>nd</sup> ed.). Belmont, CA: Wadsworth.
- Blanton, L., Griffin, C., Winn, J., & Pugach, M. (1996). *Teacher education in transition: Collaborative programs to prepare general and special educators*. Denver, CO: Love.
- deBettencourt, L. (1999). General educators' attitudes toward students with mild disabilities and their use of instructional strategies implications for training. *Remedial & Special Education, 20*(1), 27.
- DeSimone, J. and Parmar, R. (2006). Middle School Mathematics Teachers' Beliefs About Inclusion of Students with Learning Disabilities. *Learning Disabilities Research & Practice, 21*(2), 98-110.
- Gerent, M. (2000). *Preparing general and special educators to teach in inclusive settings: Implications for teacher training programmes*. Paper presented at the International Special Education Congress, University of Manchester.

- Henning, M. B., & Mitchell, L. C. (2002). Preparing for inclusion. *Child Study Journal*, 32(1), 19-29.
- Idol, L. (2002). *Creating collaborative and inclusive schools*. Austin, TX: PRO-ED.
- Larhoven, T. Munk, D. Lynch, K. Wyland, S., Dorsch, N. Zurita, L. Bosma, J. & Rouse, J. (2006). Project ACCEPT: Preparing pre-service special and general educators for inclusive education. *Teacher Education and Special Education* 29(4), 209-212.
- Peterson, M. & Beloin, K. (1998). Teaching the inclusive teacher: Restructuring the mainstreaming course in teacher education. *Teacher Education and Special Education*, 21(4), 306-318.
- Rao, S.M., & Lim, L. (1999, May). *Beliefs and attitudes of pre-service teachers toward teaching children with disabilities*. Paper presented at the annual conference of the American Association on Mental Retardation, New Orleans, L.A.
- Scruggs, T. E., & Mastropieri, M. A. (1996). Teacher perceptions of mainstreaming/inclusion, 1958-1995: A research synthesis. *Exceptional Children*, 63, 59-74.
- Silverman, J. (2007). Epistemological beliefs and inclusion attitudes. *Teacher Education and Special Education*, 30 (1), 42-51.
- Smith, M.K., & Smith, K.E. (2000). "I believe in inclusion, but...": Regular education early childhood teachers' perceptions of successful inclusion. *Journal of Research in Childhood Education*, 14, 161-180.
- Smith, T., Polloway, E., Patton, J., & Dowdy, C. (2007). *Teaching students with special needs in inclusive settings* (5<sup>th</sup> Ed). Needham Heights, MA: Allyn & Bacon.
- U.S. Department of Education. (no date). *Introduction: No Child Left Behind*. Retrieved December, 28, 2007 from <http://www.ed.gov/nclb/overview/intro/index.html>
- U.S. Department of Education, Office of Special Education and Rehabilitative Services, Annual Report to Congress on the Implementation of the Individuals with Disabilities Act, 199502004, table 2-5, data from Individuals with Disabilities Act (IDEA) database. Retrieved January 8, 2008 from <http://nces.ed.gov/programs/coe/2007/section4/indicator31.asp#text1>
- Villa, R., Thousand, J., & Chapple, J. (1996). Preparing teachers to support inclusion: Preservice and inservice programs. *Theory Into Practice*. 35(1), 42-50.