The purpose of this study was to determine the effect of active learning techniques and the use of supplemental literature dealing with disabilities in a required introduction to education and special education course on preservice teachers (N=67) attitudes toward inclusion. The active learning techniques included participation in simulation activities, awareness activities, role playing, problem solving, and open-ended discussions. Throughout the semester there were also field trips. Statistical analysis indicated that change in preservice teacher attitudes toward inclusion from pre- to post-survey was statistically significant. The post-survey results showed students were generally more favorable regarding inclusion but have some doubts if it benefits all students. Post-survey results also indicated that these preservice teachers were not sure if all teachers can effectively teach students with special needs and showed a concern that more than minor changes are needed to facilitate successful inclusion. The survey instrument and table of data are appended. (Contains 22 references.) (JLS)
MANUSCRIPT COVER SHEET

Active Learning's Effect Upon Preservice Teachers' Attitude Toward Inclusion

PRINCIPAL AUTHOR:
Dr. Sharon Andrews
Assistant Professor of Education
Education Department
Augustana College
29th & Summit
Sioux Falls, SD 57197

Dr. John J. Clementson
Assistant Professor of Education
Education Department
Augustana College
29th & Summit
Sioux Falls, SD 57197
ABSTRACT

Teacher educators must prepare preservice teachers for the reality of today's classrooms by employing teaching methodology that fosters a positive attitude toward inclusion. The purpose of this study was to determine the effect of active learning techniques on preservice teachers' attitudes toward inclusion. Statistical analysis indicated that change in preservice teacher attitude toward inclusion from pre- to post-survey was statistically significant.
PRESERVICE TEACHER ATTITUDE--1

BACKGROUND

P.L. 94-142 and its amendments mandate that every child has the right to a free appropriate public education in the least restrictive environment. As more and more regular classrooms provide an education for all students, with or without a disability, preservice teachers must be prepared to meet the challenges of these inclusive classrooms, and teacher educators must closely examine their methodology and its effect upon preservice teacher attitude.

HISTORICAL PERSPECTIVE

In a review of the research, Lundstrom (1979) found that teachers tend to hold negative attitudes toward both students with disabilities and inclusion. In 1982, Kunzweiler concluded that without attention to how preservice teacher education programs are structured to promote positive attitudes toward inclusion, it would not succeed. Others have concurred that inclusion's success or failure depends in large part upon the teacher's attitude toward students with disabilities (Parish, Nunn, & Hattrop, 1982) and current research has shown that when educators are prepared for inclusive classrooms, attitudes toward
inclusion change and without preparation, negative attitudes remain (Dickens-Smith, 1995).

While there have been studies conducted to determine preservice teachers' understanding of inclusion (Sparapani, 1995) and studies carried out to identify preservice teachers' attitudes toward inclusion at various points during their program of preparation and field experiences (Folsom-Meek, Nearing, & Krampf, 1995; Hoover, 1984; Leyser, 1982; Sanche, 1990; Sesow & Adams, 1982; Wilczenski, 1994), little has been done to determine the effect of teaching methodology on preservice teachers' attitude toward inclusion. However, a 1979 study by Orlansky designed to determine the effect of teaching methodology on students' attitude toward inclusion, an active-learning approach, defined as spending no more than 25% of classtime in lecture, was found to favorably influence preservice teachers' attitudes toward inclusion when compared to a lecture-based approach, where 75% or more of classtime was devoted to lecture.

Many (Fein & Ginsberg, 1978; Radencich, 1986; Stroud, 1981; Umerlik, 1992) have reported that the use
of children's and adolescent literature dealing with disabilities is effective in promoting awareness, understanding, and acceptance of as well as creating a positive attitude toward disabilities. Radencich (1986) recommends that the use of literature dealing with disabilities should include classroom discussion and follow-up, hands-on activities. Finally, Anthony (1972) and Horne (1979) both concluded that it is most effective to provide preservice teachers with both a cognitive and affective experience when attempting to change attitudes toward disabilities.

Hudson, Reisberg, and Wolf (1983) knew long ago that inclusion's success depends largely on whether or not teachers have positive attitudes toward it. Thus, as inclusion becomes more prevalent, it is necessary to determine attitudes of preservice teachers toward inclusion (Stoler, 1992; Moisio, 1994). In addition to determining preservice teachers' background knowledge and existing attitudes toward inclusion, promotion of positive attitudes toward inclusion must take place to insure its success.

PURPOSE

The purpose of this study was to determine if
active learning techniques and the use of supplemental literature dealing with disabilities in a required introduction to education and special education course had an effect upon preservice teachers' attitude toward inclusion.

SUBJECTS

Survey participants were students enrolled in sections of a required introduction to education and special education course during the interim and spring terms. The total number of respondents completing the pre- and post-survey was 67.

ACTIVE-LEARNING TECHNIQUES

Students enrolled in the course are engaged in active learning through participating in simulation activities, awareness activities, role playing, problem solving activities, and open-ended discussions. Several field trips to area facilities providing services to children, adolescents, and adults with disabilities are taken throughout the semester. Students also select and share children's literature related to disabilities and make suggestions for classroom use. A poster enumerating "Tips for Teachers...Suggestions for Successful Inclusion", is
PRESERVICE TEACHER ATTITUDE

created, shared, and displayed. In addition, students self-select a novel related to disabilities and engage in small group discussions with their classmates to share, compare, and contrast how the different novels dealt with issues related to disabilities.

PROCEDURE

A modified version of an instrument used by Moisio (1994) defining inclusion and representing various viewpoints related to it was used to gather pre and post data regarding preservice teachers' attitude toward inclusion and the results statistically analyzed to determine if significant attitude change toward inclusion had occurred. (See Figure 1) Students were asked to indicate, by circling, if they strongly agreed, agreed, were neutral, disagreed, or strongly disagreed with the survey statement. In both sections, the survey was administered the first day of the course prior to any explanation of the course to collect pre-survey data and again on the last day of the course to collect post-survey data.

RESULTS

A series of t-tests for paired (dependent) samples was used to compare pre- and post-survey results and
PRESERVICE TEACHER ATTITUDE--6
determine if active learning techniques and the use of supplemental literature had significantly affected preservice teachers' attitude toward inclusion. (See Table 1) Statistical significance was achieved in a number of areas.

Students' responses to survey items indicating their background knowledge about inclusion revealed that while students were already familiar with inclusion and the motivation behind it, their knowledge base was significantly strengthened. (#1--I am familiar with inclusion--t=10.565, p>.05, p=0.000) (#2--The primary motivation behind inclusion is to save money--t=3.026, p>.05, p=.004).

The most encouraging results were in response to survey item #3--Students with special needs will benefit from the inclusive classroom. While students presurvey responses indicated that they were neutral but leaning toward agreeing with the statement (pre-survey mean=3.552), results of the statistical analysis indicated that students' positive attitude toward inclusion became significantly stronger (t=3.492, p>.05, p=.001, post-survey mean=4.104). However, survey items that readdressed this issue with alternate
wording did not achieve statistical significance. Students remained neutral from pre- to post-survey in response to Item #5--Separating and labeling students is not necessary to provide a quality education to them--(t=.294, p>.05, p=.770, pre-mean=3.373, post-mean=3.418). In response to item #7--Separating students with special needs is unethical--students tended to consistently agree with this statement (t=.539, p>.05, p=.591, pre-mean=2.522, post-mean=2.448) and their attitudes were not, therefore, significantly changed.

Results of pre- to post-responses to item #4--Some students are best educated in a separate classroom or facility--were most interesting (t=3.126, p>.05, p=.003). This result is consistent with survey responses to items #5 and #7 and is indicative of a pattern. While students agreed that inclusion is a good idea and have positive attitudes toward it, they aren't convinced that it is the best approach for all students. Students appeared to struggle with responding to item #4 and often circled the word "some" and jotted notes about students with severe or profound disabilities, indicating that these students may be
better served in a separate facility. This is entirely logical, since we visit both a residential facility for children with severe mental and physical disabilities and one serving children with severe emotional and behavioral disorders; this is usually the only experience students have had with those who are severely disabled and have not been exposed to inclusive settings that serve these populations.

Survey respondents were neutral in response to item #6--Good teachers can teach all students--(pre-survey mean=3.194, post-survey mean=3.224) and results were not statistically significant. It should be noted that students often questioned what the survey meant by "good." Students initially disagreed with item #9--Only minor adjustments will be needed to teach all students in the regular classroom--(pre-survey mean=2.373, post-survey mean=2.090) and their level of disagreement significantly increased (t=2.228, p>.05, p=.029). It can be concluded that these preservice teachers aren't sure if all teachers can effectively teach students with special needs and that it takes more than minor changes to facilitate successful inclusion.
Finally, responses to item #8--It is more important where a student is educated, than what s/he is taught--(t=1.000, p>.05, p=.321) were not significant.

DISCUSSION

Preservice teacher education courses that deal with disabilities need to do much more than provide background information related to inclusion and must employ teaching methodology that allows students to become personally involved with course content. For many preservice teachers, coursework related to disabilities is limited, thus, it is even more vital that these introductory courses make students aware of and cause them to consider their attitudes toward disabilities since all teachers will, at some time, have students with special needs in their classroom.

The results of this study indicate that the teaching methodology of those involved in preservice teacher programs can play an influential role in fostering positive attitudes toward inclusion and ultimately toward students with disabilities. Given the nature of our inclusive classrooms today, preservice teacher training programs must employ
PRESERVICE TEACHER ATTITUDE--10

effective teaching methodology. The issue of preservice teacher attitude toward inclusion must be addressed. Future research is needed to further examine the effects of teaching methodology upon students and implications for other disciplines must be explored.
References


Orlansky, M.D. (1979). Active learning and student attitudes toward exceptional children. *Exceptional
Children. 46(1), 49-52.


INCLUSION SURVEY

ID #_______ GENDER: M or F CLASS RANK: SR JR SO FR Other:

GPA: 1.0-1.5 1.6-2.0 2.1-2.5 2.6-3.0 3.1-3.5 3.6-4.0

MAJOR(S)_________________ MINOR(S)_________________

DEFINITION OF INCLUSION: the education of all students, both with and without disabilities (e.g., learning disabilities, behavioral problems...), in a regular elementary, junior high, or high school classroom

Circle the letter(s) that best match your reaction to each of the following statements:

SA=strongly agree
A=agree
N=neutral
D=disagree
SD=strongly disagree

1. I am familiar with inclusion.

SA A N D SD

2. The primary motivation behind inclusion is to save money.

SA A N D SD

3. Students with special needs will benefit from the inclusive classroom.

SA A N D SD

4. Some students are best educated in a separate classroom or facility.

SA A N D SD

5. Separating and labeling students is not necessary to provide a quality education to them.

SA A N D SD

6. Good teachers can teach all students.

SA A N D SD

7. Separating students with special needs is unethical.

SA A N D SD

8. It is more important where a student is educated, than what s/he is taught.

SA A N D SD

9. Only minor adjustments will be needed to teach all students in the regular classroom.

SA A N D SD
<table>
<thead>
<tr>
<th>QUESTION</th>
<th>N</th>
<th>MEAN</th>
<th>SD</th>
<th>DF</th>
<th>t</th>
<th>PROBABILITY</th>
<th>SIGNIFICANCE</th>
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</thead>
<tbody>
<tr>
<td>1. I am familiar with inclusion.</td>
<td>Pre</td>
<td>67</td>
<td>3.642</td>
<td>0.949</td>
<td>66</td>
<td>10.565</td>
<td>0.000</td>
</tr>
<tr>
<td></td>
<td>Post</td>
<td>67</td>
<td>4.836</td>
<td>0.373</td>
<td></td>
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<td>*</td>
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<td>2. The primary motivation behind inclusion is to save money.</td>
<td>Pre</td>
<td>67</td>
<td>2.269</td>
<td>0.845</td>
<td>66</td>
<td>3.026</td>
<td>0.004</td>
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<tr>
<td></td>
<td>Post</td>
<td>67</td>
<td>1.836</td>
<td>0.931</td>
<td></td>
<td></td>
<td>*</td>
</tr>
<tr>
<td>3. Students with special needs Will benefit from the inclusive classroom.</td>
<td>Pre</td>
<td>67</td>
<td>3.553</td>
<td>1.049</td>
<td>66</td>
<td>3.492</td>
<td>0.002</td>
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<tr>
<td></td>
<td>Post</td>
<td>67</td>
<td>4.104</td>
<td>0.873</td>
<td></td>
<td></td>
<td>*</td>
</tr>
<tr>
<td>4. Some students are best educated in a separate classroom or facility.</td>
<td>Pre</td>
<td>67</td>
<td>3.896</td>
<td>0.063</td>
<td>66</td>
<td>3.126</td>
<td>0.003</td>
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<tr>
<td></td>
<td>Post</td>
<td>67</td>
<td>4.224</td>
<td>0.734</td>
<td></td>
<td></td>
<td>*</td>
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<tr>
<td>5. Separating and labeling students is not necessary to provide a quality education to them.</td>
<td>Pre</td>
<td>67</td>
<td>3.373</td>
<td>1.042</td>
<td>66</td>
<td>0.294</td>
<td>0.770</td>
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<tr>
<td></td>
<td>Post</td>
<td>67</td>
<td>3.418</td>
<td>1.130</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>6. Good teachers can teach all students.</td>
<td>Pre</td>
<td>67</td>
<td>3.194</td>
<td>1.048</td>
<td>66</td>
<td>0.207</td>
<td>0.837</td>
</tr>
<tr>
<td></td>
<td>Post</td>
<td>67</td>
<td>2.522</td>
<td>1.204</td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>7. Separating students with special needs is unethical.</td>
<td>Pre</td>
<td>67</td>
<td>2.522</td>
<td>0.823</td>
<td>66</td>
<td>0.539</td>
<td>0.592</td>
</tr>
<tr>
<td></td>
<td>Post</td>
<td>67</td>
<td>2.480</td>
<td>1.034</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>8. It is more important where a student is educated rather than what s/he is taught.</td>
<td>Pre</td>
<td>67</td>
<td>2.149</td>
<td>0.909</td>
<td>66</td>
<td>1.000</td>
<td>0.321</td>
</tr>
<tr>
<td></td>
<td>Post</td>
<td>67</td>
<td>2.299</td>
<td>1.194</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>9. Only minor adjustments will be needed to teach all students in the regular classroom</td>
<td>Pre</td>
<td>67</td>
<td>2.373</td>
<td>0.813</td>
<td>66</td>
<td>2.228</td>
<td>0.029</td>
</tr>
<tr>
<td></td>
<td>Post</td>
<td>67</td>
<td>2.090</td>
<td>0.08</td>
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</table>

*Significant at the p = .05 alpha level
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