Student attitudes toward individuals with disabilities: Inclusive versus traditional classrooms in elementary school

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Student Attitudes Toward Individuals with Disabilities:
Inclusive versus Traditional Classrooms in Elementary School

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By
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# Table of Contents

Abstract | page 1
---|---
Introduction | page 2
  - Characteristics of Inclusive Schools | page 4
  - Critics of Inclusion | page 5
  - Effects of Inclusion on Students Without Disabilities | page 7
  - Factors Influencing the Acceptance of Students with Disabilities | page 8
  - Enhancing Social Interactions Within Inclusive Classrooms | page 10
  - Rationale for the Current Study | page 13
Method | page 14
  - Participants | page 14
    - Site Selection | page 15
    - Sampling Procedure | page 16
  - Instruments | page 16
    - Teacher Survey | page 16
    - Scale of Children’s Attitudes Toward Exceptionalities (SCATE) | page 16
Procedure | page 19
  - Administration of Teacher Survey | page 19
  - Administration of SCATE | page 19
Results | page 20
  - Scale of Children’s Attitudes Toward Exceptionalities | page 20
  - Teacher Survey | page 22
Discussion

Implications for the Field

Possible Confounds in the Current Study

Implications for Future Research

References

Appendix A: Teacher Survey

Appendix B: Scale of Students’ Attitudes Toward Exceptionalities

Appendix C: SCATE Scoring Sheet
Abstract

In recent years, many schools have begun to include students with disabilities in general education classrooms. Studies on “inclusion,” have shown several positive effects for students with and without disabilities. This study examines the self-reported attitudes of 185 elementary school students in inclusive and traditional classrooms, as measured by the Scale of Children’s Attitudes Toward Exceptionalities (SCATE). Self-reported attitudes and experiences of general education teachers were also assessed using a survey developed by the researcher. Although statistically significant relationships were found on the SCATE, these were not logical or conclusive. Results of the teacher surveys indicate that teachers of inclusive classes more strongly support the district philosophy for including students with disabilities than teachers of traditional classes. The results of this study do not support the hypothesis that students in “inclusive” classrooms have more positive attitudes toward peers with disabilities than students in “traditional” classrooms. Implications for these results and possibilities for future research are discussed.
Student Attitudes Toward Individuals with Disabilities:

Traditional versus Inclusive Classrooms in Elementary School

In 1990, the Individuals with Disabilities Education Act (IDEA), formerly the Education for all Handicapped Children Act of 1975, stated that children with disabilities must be provided with a free and appropriate education in the Least Restrictive Environment. More specifically, “to the maximum extent appropriate, children with disabilities, including children in public or private institutions or other care facilities are educated with nondisabled children” (20 U.S.C. 1412 (5) (B); 34 CFR 300.550, as cited in Fox & Williams, 1991). Many educators and parents have interpreted this law to mean that all children have the right to be educated in the general education system within their home districts (Stainback, Stainback & Forrest, 1989). This interpretation has been manifested into a movement called Inclusion. However, the term “inclusion” is not used in IDEA. According to McCarthy (1994), “inclusion” means that support services are brought to children in the general education classroom instead of segregating the children who are eligible for these services by placing them in a different setting. McCarthy (1994) differentiates the concept of inclusion from mainstreaming. In inclusion students with disabilities are integrated in the general education setting full time, rather than for merely part of the day for, typically, non-academic activities, such as music and physical education, as in mainstreaming.

Pearpoint (1990) states that including youngsters with disabilities in general education classrooms will benefit schools and society because both will be able to recognize and use the talents of individuals that would otherwise go unnoticed. These “outsiders” will bring new talents and perspectives to “policy conundrums where we are in a rut and need
fresh ideas,” (Pearpoint, 1990, p. 2). Pearpoint (1990, p. 2) further states that there are some inherent underlying assumptions of inclusion. These include:

1. We are equal in value; however, each has unique capacity.
2. All people can learn.
3. All people have contributions to make.
4. We have a responsibility and an opportunity to give every person the chance to make a contribution.

In a study involving feedback concerning the inclusion of students with disabilities in general education classes, York, Vandercook, MacDonald, Heise-Neff and Caughey (1992) found that both faculty and students reported benefits for the students with disabilities. Special and general education teachers as well as students without disabilities perceived the most positive changes in the social and communication skills of the students with disabilities.

A review of outcome studies concerning the integration of students with severe and profound disabilities into general education classrooms by Halvorsen and Sailor (1990) suggests that the students with disabilities benefited in numerous ways from the increased interaction with nondisabled peers. According to Halvorsen and Sailor (1990), these areas of increased functioning include: (a) social development, (b) affective development, (c) interactive development and skills generalization, and (d) increases in the proportion of IEP goals obtained.

Although the IDEA does not currently require that all students with disabilities be placed in general education settings, courts have upheld placements within the general education system for students with disabilities (McCarthy, 1994). According to
McCarthy (1994), courts take into consideration the specific circumstances in each case to determine whether a general education placement is appropriate for the student. In general, courts have upheld the student’s right to education within the general education system unless the school district is able to prove that the nature of the student’s disabilities are so severe that he or she will not benefit from being included with peers, or that the education of nondisabled peers will suffer as a result of including him or her (McCarthy, 1994). The courts further stipulated that districts must provide a “continuum of placements” for students with disabilities, that they must consider the least restrictive environment prior to placing these students in a special program, and that districts “cannot justify segregated placements simply because inclusion requires a modification of the curriculum” (McCarthy, 1994, p. 2).

Characteristics of Inclusive Schools

Students with disabilities present unique learning needs that may not conform to the traditional teaching styles often used in non-inclusive classrooms. In a study on the importance of classroom climate for at-risk learners, Pierce (1994) found that students displaying academic difficulty benefited from classroom management based on appropriate behavior and sensitivity toward others. Other beneficial aspects of classroom climate include teachers who display enthusiasm and a willingness to take on a variety of roles in order to support the students (Pierce, 1994). Similarly, Soodak (1994) found that teachers who developed classroom intervention strategies for themselves to carry out, rather than seeking solutions to classroom problems from others, were more likely to provide effective instruction to difficult-to-teach students.
Fox and Williams (1991) provided a series of best practice guidelines for meeting the needs of all students in their local schools, which are in agreement with the findings of Pierce (1994) and Soodak and Podell (1994). Included in the list of best practices are characteristics of school structure and climate that have been shown to be important attributes of inclusive school systems. These include:

- (a) a commitment to meet "the individual needs of all students in age-appropriate general education and community settings" (p. 6),
- (b) a climate that encourages the development of personal interactions between students and faculty,
- the development of a positive self-concept and high achievement goals for all students,
- (c) an emphasis on positive behavior within the school and taking into account individual needs of the students,
- (d) opportunities for recognition of the students' accomplishments,
- (e) clear and well delineated responsibilities by a multi-disciplinary committee of faculty and staff members in providing support and instruction to students,
- (f) professional development programs for faculty and staff members,
- and (g) an instructional support system for the delivery of services that is available to all staff and students (Fox & Williams, 1991).

Critics of Inclusion

Although, when implemented appropriately, the inclusion of students with disabilities in general education classrooms has met with much success in terms of academic and social development among all students (Fox & Williams, 1991), there remains doubt and confusion among educators in regard to the feasibility and effectiveness of inclusive programs. Silver (1991) and the American Federation of Teachers (1994) voice concern over the placement of students with
special needs in general education classrooms without the necessary supports to allow them to succeed. Educational reform in many areas has led to an increase in the number of students with disabilities in the general education system (Silver, 1991; AFT, 1994). Meanwhile, the number of special education teachers, who serve as consultants in inclusive classrooms, is decreasing (Silver, 1991; AFT, 1994). These changes have occurred in most cases without a formal decision making policy in place (AFT, 1994). According to Silver (1991), this suggests that the faculty members who will be involved are not consulted concerning rationale and planning for the reforms. No increase in inservice training to prepare the general education teachers for including children with disabilities in their classrooms has taken place. In many districts, the budget for special education is decreasing as more students with disabilities are moved into the general education system. However, the budget for general education is not increasing to provide for the special needs of these students (Silver, 1991; AFT, 1994).

Silver (1991) and AFT (1994) do not attack the philosophy of the inclusion movement, rather, they oppose placing students with disabilities into the general education system without providing the necessary supports to help these students succeed. According to Brown, et al. (1989), under no circumstance should any student with disabilities be dumped into regular education classrooms without the services and resources appropriate for the educational and social growth of all involved. If an
IEP requires specific supports and services, they must be provided regardless of where the student functions (p. 9).

As stated earlier, when these supports are in place, the inclusion of children with disabilities in general education classrooms has been shown to have positive results (Fox & Williams, 1991; York, et al., 1992; Pierce, 1994; Soodak & Podell, 1994).

Effects of Inclusion on Students Without Disabilities

Sharpe, York and Knight (1994) studied the effects of including students with disabilities in general education elementary school classrooms on the academic performance and behavior of the students without disabilities. The researchers found that the results of a standardized achievement test and report card grades for reading, spelling, mathematics, conduct and effort indicate that the performance of general education students in inclusive and non-inclusive classrooms were not significantly different. This study indicates that the academic achievement and behavior of students without disabilities did not decrease as a result of including students with disabilities in general education classrooms. According to Staub and Peck (1995) studies on the academic progress of students without disabilities in inclusive classrooms have consistently found no differences from the progress of students in non-inclusive classrooms. Furthermore, students without disabilities do not acquire undesirable or maladaptive behaviors from students with disabilities (Staub & Peck, 1995).

According to York, et al. (1992), teachers in inclusive classrooms stated that the integration of students with disabilities into the general education system
provided all students with the opportunity to get to know and learn more about each other. Both teachers and students indicated that the best aspect of inclusion was the interaction and acceptance of individual differences that took place within the classrooms (York, et al., 1992).

Factors Influencing the Acceptance of Students with Disabilities

Roberts and Zubrick (1992) studied a number of factors that may be related to the acceptance of students with disabilities by their peers. These include: academic achievement, teachers’ perceptions and attitudes toward integration, peer perceptions and social status of students with disabilities who were integrated into general education classrooms. Using a questionnaire designed to estimate students’ reputations among their peers, as well as a sociometric questionnaire that required students to rate all of their classmates in terms of social attraction, they found that students with disabilities are more frequently rejected and less frequently accepted than their peers without disabilities. Furthermore, Roberts and Zubrick (1992) found that the social status of students with and without disabilities depends on different criteria. For example, disruptive behavior by students with disabilities was most highly correlated with rejection, while the same behaviors by students without disabilities was correlated more often with some degree of social acceptance. Rejection of students without disabilities was more likely to be attributed to low academic success (Roberts & Zubrick, 1992).

Roberts and Zubrick (1992) also examined the attitudes of teachers toward students with disabilities and the integration of these students into general
education classrooms. The social acceptance of students with disabilities by their classmates was not correlated with teachers' attitudes toward the integration of these students into general education classrooms. However, the teachers' ratings of academic success was an indicator of social acceptance for students with and without disabilities. Students who received high ratings of academic success by their teacher were more likely to be accepted by their peers than those who received lower ratings. These results suggest that it is possible that teachers' attitudes toward inclusion may be less important than their attitudes toward individual students.

In another study on the social acceptance of students with disabilities in inclusive classrooms, Forlin and Cole (1994) found that the degree of acceptance of students with disabilities is based on the interaction of a number of factors. The participants in this study were told that a student with mental retardation would be joining their class and viewed a video tape of a teacher interviewing the target child. The students were randomly assigned to one of four video tape conditions: (a) a positive teacher interviewing a confident target child, (b) a positive teacher and non-confident target child, (c) a neutral teacher interviewing a confident target child, or (d) a neutral teacher interviewing a non-confident target child. The researchers used magnitude scales to measure the general education students' perceptions of how well the target child would be accepted, how she would react to the classroom surroundings and how well she would perform academically in the classroom. They concluded that successful social integration partly depends on such variables as the overall philosophy of the
school and the attitudes of the teachers. They also found that the attributions made by general education students concerning the ability and success of students with disabilities are good indicators of the social acceptance of these students. Specifically, the students attributed higher abilities and greater chances for success to students with disabilities who demonstrated higher levels of confidence. Forlin and Cole (1994) stated that any of these variables alone may not be useful in predicting the success of the integration of students with disabilities into general education. The researchers concluded that the interaction among the variables should be considered in making placement decisions for students with disabilities (Forlin & Cole, 1994).

Together these studies suggest that there may be different criteria for social acceptance for students with and without disabilities, but peer perception of academic success appears to be an important factor for all students. Secondly, the social acceptance of students with disabilities in general education classes by their peers without disabilities may be influenced less by teacher attitudes toward the philosophy of inclusion than by teacher attitudes toward individual students. Finally, social acceptance by peers without disabilities appears to depend on individual personality characteristics of the students with disabilities.

**Enhancing Social Interactions Within Inclusive Classrooms**

York, et al. (1992) found that the social interactions between students with and without disabilities, and the subsequent acceptance of individual differences were two of the most positive outcomes of integrating students with disabilities into general education classrooms. While studies such as those completed by
Roberts and Zubrick (1992) and Forlin and Cole (1994) help in delineating factors involved in the successful integration of students with disabilities into general education, other studies have resulted in strategies that enhance positive social interactions and acceptance among students.

Chin-Perez, et al. (1986) found that the social behaviors of students with disabilities improved as a result of a social skills training program in addition to the natural socialization that took place during tutoring sessions with peers without disabilities. As a result of the interventions, appearance, academic performance, and behavior of the students with disabilities improved (Chin-Perez, et al., 1986). Similarly, Haring and Breen (1992) found that a peer-mediated social network intervention promoted the inclusion of students with disabilities in extra-curricular social events and interactions. In this study, a pair of students without disabilities implemented a social skills intervention with peers who have moderate or severe disabilities by interacting with them in the hallways during passing time between class periods and in the cafeteria during lunch periods. The idea of the intervention was to increase the visibility of interactions between students with and without disabilities in the hopes of increasing the number of students without disabilities interacting with students with disabilities. The times of day to implement the intervention were chosen so opportunities for the largest possible number of students to become involved in the interactions were available. After the intervention was implemented, other students without disabilities interacted more with students with disabilities, thus creating social networks. Results indicated that the network program increased the number of
social interactions that the students with disabilities engaged in while also increasing the appropriateness of those interactions. The outcome of the interventions were the formation of friendships and the inclusion of students with disabilities in social events outside of school (Haring & Breen, 1992).

A study by Vandercook (1991) indicated that direct instruction of skills involved in leisure activities for students with disabilities serves to increase the mastery of the skills, which, in turn, enhances the subsequent interactions with students without disabilities in these activities. In the study, students with disabilities were taught to participate in popular leisure activities. When the students used their skills during leisure activities with students without disabilities, the interactions among the students was enhanced. The students without disabilities gained empathy for the students with disabilities and friendships developed. The results of this study suggest that providing students with disabilities with direct instruction of skills needed for age-appropriate leisure activities enhances the social interactions of these students with peers without disabilities during natural occurrences of the activities (Vandercook, 1991).

Taken together, studies by Chin-Perez, et al. (1986), Haring and Breen (1992) and Vandercook (1991) indicate that providing systematic instruction in social skills and age-appropriate activities to students with disabilities serves to enhance the social interactions that occur between these students and those without disabilities. One possible explanation for this outcome is that mastery of these skills may facilitate the perception of more commonalities than differences between the two groups, while also increasing opportunities for pro-social interactions (Chin-Perez, et al., 1986; Haring & Breen, 1992; Vandercook, 1991).
According to Lewis (1993), elementary school students’ acceptance of, interaction with, and therefore, understanding of one another, was enhanced when teachers emphasized commonalities among the students. Young students recognized the differences between students with and without disabilities; however, they tended to associate all disabilities with sensory deficits (e.g. visual impairment). These results suggest that it is important for teachers to acknowledge differences among individuals while emphasizing that there are more commonalities than differences. Also, it is important to clarify the students’ understanding of disabilities because this understanding (or lack thereof) will affect the interactions among students with and without disabilities (Lewis, 1993).

Rationale For the Current Study

Many arguments have been made for the inclusion of students with disabilities in the general education system (Pearpoint, 1990; Stainback, et al., 1989). Research has indicated that students with and without disabilities can benefit from social interactions with one another (York, et al., 1992; Chin-Perez, et al., 1986; Haring & Breen, 1992; Vandercook, 1991; Lewis, 1993). As a nation, the United States has been moving toward increased deinstitutionalization and as a result, individuals with disabilities are more integrated into and involved with a variety of activities in the community. However, many people with disabilities experience discrimination mostly based on ignorance concerning their disabilities.

Vandercook (1991), Haring and Breen (1992) and Lewis (1993) found that attitudes of students without disabilities toward students with disabilities become more positive over time as a result of interacting with them. The purpose of the current study is to
determine the extent to which attitudes toward individuals with disabilities among children become more positive as a result of integrating students with disabilities into general education classrooms. It is hypothesized that students in inclusive classrooms will report more positive attitudes toward students with disabilities than their grade level counterparts in traditional classrooms.

Method

Participants

Ten teachers and 185 students in ten classrooms at a rural school district in Upstate New York voluntarily participated in this study. The sample consisted of students and teachers from two classrooms at each grade level, first through fifth. One of the classrooms at each grade level included students who have been identified by the district Committee on Special Education as having disabilities, according to the New York State Education Department regulations. This classroom was called the "inclusive" classroom for this study. The other classroom at each grade level contained no students with identified disabilities. This classroom was called the "traditional" classroom for this study. The average ages of the students at each grade level, first through fifth, were: 6 years, 11 months; 7 years, 11 months; 9 years, 0 months; 9 years, 11 months; and 11 years, 0 months, respectively.

Of the 185 student participants in the study, 37 were in first grade, 33 were in second grade, 37 were in third grade, 36 were in fourth grade and 42 were in fifth grade. The sample of students consisted of 96 females and 89 males. Twenty-five of the students were identified by the district Committee on Special Education (CSE) as having a disability. These CSE identified participants were distributed across all grades with five
in first grade, three in second grade, five in third grade, five in fourth grade and seven in fifth grade. Of these 25 students, five had learning disabilities, 18 had speech/language impairments, and one was classified as having multiple disabilities.

All of the 10 teachers who participated in this study were female general educators. Two of the educators had been teaching for 6 to 10 years, three for 16 to 20 years, and five for 21 years or more. Nine of the teachers reported that they had taught students who were identified by the Committee on Special Education as having disabilities at some point in their careers.

Site Selection

The site for this study was chosen because the district has a formal written policy for including students with disabilities in general education classes. All teachers in the district received some training on the philosophy behind the inclusion movement and on practical modifications and accommodations that can be made in their classrooms to meet the needs of students with disabilities. The training workshop was provided by the Special Education Training and Resource Center (SETRC). The district follows consultant teacher and push in models of inclusion. The consultant teacher model is used in the kindergarten and fifth grade inclusive classrooms, where special education teachers and general education teachers work together to develop lesson plans and both are actively involved in teaching all students within the general education classrooms. In the first through fourth grade inclusive classrooms, special education teachers provide push-in services to students who are classified as having disabilities, as well as others who have similar learning styles and needs, but no identified disabilities.
The building principal selected classrooms and asked the teachers if they were interested in being part of this research study. Teachers were informed that participation in this study was voluntary and that they could withdraw their participation at any time and without retribution.

**Sampling Procedure**

All students in the 10 classrooms selected by the principal were asked to participate in this study and parental permission was obtained. The parents of all students in the sample were notified in writing of the purpose and procedure of the study. They were also notified that the students’ participation in the study was voluntary and that all participants have the right to withdraw at any time without penalty. Of the 217 parental consent forms sent out, 185, approximately 85%, were returned with consent granted.

The names of all student participants in the study were anonymous and were unknown to the researcher.

**Instruments**

**Teacher Survey**

A paper and pencil survey was completed independently by the general education teacher in each classroom. The survey was developed by the researcher for this study in order to assess demographic information regarding teacher experiences with and attitudes toward the inclusion of students with disabilities in general education classrooms. Refer to Appendix A for a copy of this teacher survey.

**Scale of Children’s Attitudes Toward Exceptionalities (SCATE)**

The SCATE was administered to the students in each classroom. This scale is a paper and pencil sociometric survey developed by Miller and Loukellis (1982). It
assesses student attitudes toward peers with disabilities through the use of six written/pictorial scenarios which involve the interaction of individuals who have a disability with a typical student. The six conditions depicted include an individual with each of the following: a physical disability, a visual impairment, mild mental retardation, a learning disability and no disability. The SCATE also assesses each student’s “behavioral intentions” toward individuals with each type of disability through questions following each scenario. The behavioral intentions include “friendship,” “social distance” and “subordination/superordination.” Hagan (1980) defines the three terms as follows:

*Friendship* refers to considering someone as having mutual attachment, having good-will toward them, and thinking of them in terms of affection or esteem.

*Subordination superordination* refers to the mental act of placing someone in a lower order or inferior rank, in contrast to the act of placing someone in a superior or higher rank. *Social distance* refers to “…the degree to which individuals are willing to accept people who differ from themselves into their own social group” (Triandis & Triandis, as cited in Hagan, 1980).

The scoring of the SCATE was completed according to the procedure developed by Miller and Loukellis (1982). Refer to Appendix B for a copy of the SCATE and Appendix C for a copy the scoring sheet developed for the current study. For each of the three areas of attitude measured for each disabling condition there were six multiple choice questions. Each question had three choices with a numerical value assigned. A value of one was assigned to the least positive choice, a value of two was assigned to the neutral choice and a value of three was assigned to the most positive choice. The total
attitude score was obtained by adding all of the scores for each of the scenarios (Miller & Loukellis, 1982).

According to Miller and Loukellis (1982), the attitude area scores were found by adding the 12 responses for each attitude area. There were two items for each area of attitude for each of the six scenarios. The friendship scale consisted of items 3, 6, 8, 11, 13, 16, 21, 24, 25, 28, 32, and 35. The social distance scale consisted of items 1, 4, 7, 10, 14, 17, 19, 22, 27, 30, 31 and 34. The subordination/superordination scale consisted of items 2, 5, 9, 12, 15, 18, 20, 23, 26, 29, 33, and 36. The numbers, 1 through 36, correspond to the order in which the items appear on the test. The actual numbering on the test is one through six for each area of disability, not 1 through 36.

The six subscores for type of disability were obtained by adding the scores of the six items in each scenario (Miller & Loukellis, 1982). The items that made up each subscore were as follows: the physical disability condition consisted of items one through six; the hearing impairment condition consisted of items 7 through 12; the visual impairment condition consisted of items 13 through 18; the mild mental retardation condition consisted of items 19 through 24; the learning disability condition consisted of items 25 through 30; and the general education condition consisted of items 31 through 36.

Reliability. Miller and Loukellis (1982) assessed the reliability of the SCATE by looking at its stability across time and internal consistency. Test-retest reliability was .67 (alpha = .79) and split half reliability was .83, with a Chronbach’s alpha of .86. These were viewed as acceptable levels for an attitude assessment measure (Miller & Loukellis, 1982).
Validity. There have been no studies or other scales to which the SCATE has been compared. Therefore, construct validity has not been established. However, both Miller and Loukellis (1982) and Hagan (1980) suggest that the scale has face validity.

Procedure

Prior to the scheduled date of testing, teachers were provided with teacher surveys and numbered SCATE booklets for the students in their classrooms, to ensure the anonymity of the students.

Administration of the teacher surveys

The teachers were provided with the survey form prior to the date of testing. They were asked to complete the survey and return it to the researcher the day the SCATE was administered to the students. The teachers were instructed to complete the survey independently and to refrain from discussing the items with others participating in the study until the surveys had been returned to the researcher.

Administration of the SCATE

The administration of the SCATE was consistent with procedures developed and used by Hagan (1980). The student participants were tested in groups in their classrooms. Prior to the time of testing, teachers told the students that a college student will be coming to do some work with them, and that they should do their best work but the scores will not be part of their class grades. On the day of testing, the teachers introduced the researcher and assisted in distributing and collecting the survey booklets. The researcher introduced the test, gave a brief description of what was going to take place and answered questions about procedure from the students prior to the administration of the test. According to Hagan (1980), no difficulties have been reported...
by previous researchers in providing honest answers to students’ questions without causing bias in the testing and none were encountered during the data collection phase of this study.

The researcher described the SCATE to the participants as a test that has no right or wrong answers. Students were asked to choose the answer that they think would best describe what would be said by each character in the scenarios. The researcher read the entire test to each class to control for any reading difficulties and circulated throughout the room during the test administration to answer questions and provide assistance to students. Administration of the SCATE took 20 to 40 minutes of class time depending on the grade level and the number of students in the class.

Results

Scale of Children’s Attitudes Toward Exceptionalities

Total Attitude Scale

Means and standard deviations for the Total Attitude scale are presented in Table 1 by class and by grade.

Table 1

Means and Standard Deviations for Total Attitude by Class and by Grade

<table>
<thead>
<tr>
<th>Grade</th>
<th>Inclusive</th>
<th>Traditional</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>M</td>
<td>SD</td>
<td>n</td>
</tr>
<tr>
<td>First</td>
<td>78.14</td>
<td>13.79</td>
<td>14</td>
</tr>
<tr>
<td>Second</td>
<td>81.93</td>
<td>16.99</td>
<td>15</td>
</tr>
<tr>
<td>Third</td>
<td>82.28</td>
<td>8.47</td>
<td>18</td>
</tr>
<tr>
<td>Fourth</td>
<td>82.47</td>
<td>8.34</td>
<td>17</td>
</tr>
<tr>
<td>Fifth</td>
<td>85.90</td>
<td>12.76</td>
<td>20</td>
</tr>
</tbody>
</table>
A two (inclusive/traditional) by five (grade 1/2/3/4/5) by two (female/male) 3-way full-factorial Analysis of Variance was performed, between-groups factors. This analysis revealed only a main effect for gender ($F(1, 165) = 4.00, p = .05$). Females ($M = 83.00$, s.d. = 11.29, $n = 96$) were more accepting than males ($M = 80.22$, s.d. = 11.80, $n = 89$) of students with disabilities. No other main or interaction effects obtained.

**Analysis of Disability Subscales**

Full-factorial three-way (class x grade x gender) MANOVA using the six disability subscales as outcome variables was performed. A main effect for gender was found ($W = .92, F(6, 160) = 2.37, p = .03$). No interactions involving gender obtained. Post hoc (Tukey’s HSD) analyses were performed for gender within each outcome variable; females ($M = 13.59$, $n = 96$) reported more accepting attitudes than males ($M = 12.52$, $n = 89$) for the Visual Impairment subscale only.

A class by grade interaction obtained ($W = .70, F(24, 559) = 2.49, p = .0001$), necessitating full-factorial class by gender two-way MANOVAs within grade. For first grade, a main effect for class obtained for the Physical Disability subscale only; contrary to my hypothesis, the traditional class ($M = 11.61$, $n = 23$) was more accepting of the disability than the inclusive class ($M = 8.29$, $n = 14$). For second grade, a marginal main effect for group obtained ($W = .61, F(6, 24) = 2.52, p = .05$); post hoc tests revealed no significant differences within subscales. No main effects for class were found for third through fifth grades.

No other main or interaction effects obtained.
Analysis of Area Scales

Full-factorial three-way (class x grade x gender) MANOVA using the three area scales as outcome variables was performed. No main or interaction effects obtained.

Teacher Survey

In general, reports by educators currently teaching in inclusive classrooms more strongly supported the philosophy of including students with disabilities in general education classrooms than those in traditional classrooms. Specifically, four out of five inclusive classroom teachers and one out of five traditional classroom teachers reported that students with disabilities benefit from the social and academic skills modeled by the typical students in their classrooms, as well as the necessary classroom modifications and special educational services to meet their individual needs. All ten of the teachers stressed that the students with disabilities who are included in general education classrooms require modifications and accommodations based on their individual strengths and weaknesses and cannot be expected to perform the same tasks at the same level as typical students within the same classroom.

On the survey, the teachers were given a list of disabling conditions and asked whether or not it would be possible for a student with the given conditions to be included in a general education system. Table 2 shows the number of teachers who reported that, depending on individual characteristics, it would be possible for students with the given disabilities to be successfully included in a general education classroom.

When asked for suggestions for policy and procedure change for the district with regard to the inclusion of students with disabilities in general education classrooms, four
out of five teachers in traditional classrooms and one out of five teachers in inclusive classrooms

Table 2.

Teacher Report of the Possibility of Successful Inclusion by Disability

<table>
<thead>
<tr>
<th>Disabling Condition</th>
<th>Number of Teachers with Positive Responses</th>
</tr>
</thead>
<tbody>
<tr>
<td>Speech Impairment</td>
<td>10</td>
</tr>
<tr>
<td>Learning Disability</td>
<td>9</td>
</tr>
<tr>
<td>Visual Impairment</td>
<td>9</td>
</tr>
<tr>
<td>Hearing Impairment</td>
<td>9</td>
</tr>
<tr>
<td>Physical Disability</td>
<td>9</td>
</tr>
<tr>
<td>Mild Mental Retardation</td>
<td>8</td>
</tr>
<tr>
<td>Emotional Disability</td>
<td>5</td>
</tr>
<tr>
<td>Autism</td>
<td>4</td>
</tr>
<tr>
<td>Moderate Mental Retardation</td>
<td>2</td>
</tr>
<tr>
<td>Severe/Profound Mental Retardation</td>
<td>2</td>
</tr>
</tbody>
</table>

stressed the need for more teacher training and support for developing program modifications. Three inclusive classroom teachers stated that smaller overall class sizes improve their abilities to control the learning environment for their students and that it is important to carefully select students for inclusive classrooms to ensure the most appropriate placements possible for all students. Two inclusive classroom teachers
stated that they would make no changes, but that the development of the policies is an ongoing and "learn-as-you-go" process.

Two of the five inclusive classroom teachers reported that they have gotten the necessary training to successfully include students with disabilities in their classrooms. Two inclusive classroom teachers reported that the training workshop they attended was a good start, but that more follow-up would be appropriate. These teachers also reported that many of the modifications and accommodations that they make for students in their classes are "common sense" interventions that they have acquired through their years of teaching experiences. The remaining six teachers in the sample reported that they do not have the necessary training to successfully include students with disabilities in their classrooms.

Discussion

Implications For the Field

Although statistically significant relationships were found, these were not logical or conclusive and the results of this study suggest that, in this particular school, student attitudes toward individuals with disabilities are not affected by the type of classroom in which they are placed. This finding does not support the hypothesis that typical students in inclusive classrooms would report more positive attitudes toward peers with disabilities than students in traditional classrooms. However, it may support the findings of Vandercook (1991), Chin-Perez, et al. (1986) and Haring and Breen (1992), that suggest that direct teaching of social skills to students with disabilities is necessary to increase positive social interactions between these students and those without disabilities. The students with disabilities who participated in this study did not receive direct
instruction of social skills prior to being included in general education classes. It is, therefore, possible that providing social skills training to the students with disabilities may have a positive influence on the attitudes of the students without disabilities toward them.

Another implication for the current findings is that including students with disabilities in general education classrooms does not appear to affect the attitudes of typical students toward students with disabilities in a negative direction.

Possible Confounds in the Current Study

Several confounding variables may have had an effect on the outcome of this research study. First, the elementary school from which the sample was drawn for the current study has been including children with disabilities in general education classrooms for a number of years. Students who are currently placed in traditional classrooms may have been in inclusive classrooms in previous years. The researcher was unaware of this condition prior to data collection. It is possible that this variability in class placement may have had impact on the students’ report to items on the SCATE and may partially account for the lack of differences in attitudes between students in inclusive and traditional classrooms.

Secondly, students with disabilities placed in inclusive classrooms participated in this research. The design of the study would have been stronger if the sample consisted completely of students without disabilities.

Thirdly, the sample at each grade level was not matched, students from only two classrooms per grade level were asked to participate, and parental consent was obtained
for student participation. Based on these facts, the sample may not have been an accurate representation of the entire population of the school.

Finally, this data collected for this study is based on self report. A more accurate measure of the attitudes of typical students toward peers with disabilities would be direct observation and charting of the interactions between the students in a natural environment.

**Implications for Future Research**

Sufficient research on the effects that the inclusion movement has had on the social interactions between students with and without disabilities and attitudes of typical students toward their peers with disabilities is currently lacking. Longitudinal studies of student attitudes beginning at the onset time of an inclusive program in a school and lasting through the years students are enrolled would be helpful in more accurately determining student attitudes. Also, direct observation and charting of social interactions at school between students with and without disabilities would provide more valid information regarding typical students’ attitudes toward their peers with disabilities. Finally, pretest/posttest research on the attitudes of typical students toward their peers with disabilities would be beneficial in evaluating the effectiveness of social skills training as an intervention to help students with disabilities succeed in the general education system.
References


Appendix A.

**Inclusion Survey for Teachers**

1. What grade do you teach? (please circle)
   
   K  1  2  3  4  5

2. Are students with identified disabilities currently included in your classroom?
   
   Y  N

   If yes, please list the specific disabilities (e.g. learning disability, mild mental retardation, hearing impaired, etc.)
   
   __________________________________________________________
   
   __________________________________________________________
   
   __________________________________________________________

3. Have you had students with identified disabilities included in your classroom in the past?
   
   Y  N

   If yes, please list the specific disabilities you can remember
   
   __________________________________________________________
   
   __________________________________________________________
   
   __________________________________________________________

4. What area(s) are you certified to teach?
   
   __________________________________________________________

5. If you have a graduate degree, what is it in?
   
   __________________________________________________________

6. How long have you been teaching?
   
   _______

7. What is your gender?  M  F
8. Do you agree with the philosophy of including students with disabilities in general education classrooms? Why?  

________________________________________________________________________________________

________________________________________________________________________________________

________________________________________________________________________________________

________________________________________________________________________________________

9. Which of the following groups of children do you believe can be successful within general education classrooms, keeping in mind that all necessary supports would be in place?  
Children with:  
  ___ Learning disabilities  ___ Mild mental retardation  
  ___ Visual impairments  ___ Moderate mental retardation  
  ___ Hearing impairments  ___ Severe-profound mental retardation  
  ___ Emotional disabilities  ___ Autism  
  ___ Speech impairments  ___ Physical disabilities  

10. What, if anything, would you change about the policies and procedures for including children with disabilities in general education in your district?  
________________________________________________________________________________________

________________________________________________________________________________________

________________________________________________________________________________________

________________________________________________________________________________________

11. Do you feel that you have gotten the necessary training to successfully include children with disabilities in your classroom? If not, what training do you feel you need?  
________________________________________________________________________________________

________________________________________________________________________________________

________________________________________________________________________________________

________________________________________________________________________________________
Appendix B.

Scale of Children’s Attitudes Toward Exceptionalities
Appendix C.

SCATE - Scoring Sheet

<table>
<thead>
<tr>
<th>Grade:</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>Chronological Age:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gender:</td>
<td>M</td>
<td>F</td>
<td></td>
<td></td>
<td></td>
<td>Class: T 1</td>
</tr>
</tbody>
</table>

AREA SCORES:

<table>
<thead>
<tr>
<th>Friendship:</th>
<th>Social Distance:</th>
<th>Super/Subord.:</th>
</tr>
</thead>
<tbody>
<tr>
<td>3. ___</td>
<td>1. ___</td>
<td>2. ___</td>
</tr>
<tr>
<td>6. ___</td>
<td>4. ___</td>
<td>5. ___</td>
</tr>
<tr>
<td>8. ___</td>
<td>7. ___</td>
<td>9. ___</td>
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<tr>
<td>11. ___</td>
<td>10. ___</td>
<td>12. ___</td>
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<tr>
<td>13. ___</td>
<td>14. ___</td>
<td>15. ___</td>
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<tr>
<td>16. ___</td>
<td>17. ___</td>
<td>18. ___</td>
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<tr>
<td>21. ___</td>
<td>19. ___</td>
<td>20. ___</td>
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<tr>
<td>24. ___</td>
<td>22. ___</td>
<td>23. ___</td>
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<tr>
<td>25. ___</td>
<td>27. ___</td>
<td>26. ___</td>
</tr>
<tr>
<td>28. ___</td>
<td>30. ___</td>
<td>29. ___</td>
</tr>
<tr>
<td>32. ___</td>
<td>31. ___</td>
<td>33. ___</td>
</tr>
<tr>
<td>35. ___</td>
<td>34. ___</td>
<td>36. ___</td>
</tr>
</tbody>
</table>

FTotal: S/STotal: S/STotal:

SUBSCORES:

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>1. ___</td>
<td>1. ___</td>
<td>1. ___</td>
<td>1. ___</td>
<td>1. ___</td>
<td>1. ___</td>
</tr>
<tr>
<td>2. ___</td>
<td>2. ___</td>
<td>2. ___</td>
<td>2. ___</td>
<td>2. ___</td>
<td>2. ___</td>
</tr>
<tr>
<td>3. ___</td>
<td>3. ___</td>
<td>3. ___</td>
<td>3. ___</td>
<td>3. ___</td>
<td>3. ___</td>
</tr>
<tr>
<td>4. ___</td>
<td>4. ___</td>
<td>4. ___</td>
<td>4. ___</td>
<td>4. ___</td>
<td>4. ___</td>
</tr>
<tr>
<td>5. ___</td>
<td>5. ___</td>
<td>5. ___</td>
<td>5. ___</td>
<td>5. ___</td>
<td>5. ___</td>
</tr>
</tbody>
</table>

Ptotal: Vtotal: Htotal: Mtotal: Ltotal: Ntotal:

TOTAL ATTITUDE SCORE:

HEY97
1. Child A has to use a wheelchair to get around in school. Sometimes this child comes to school late. It takes this child more time to get to class than the rest of the children.

For each question below, there are three things that child B might be saying to child A, and three things that child A might say to child B. In each statement, circle the "X" indicating one thing that that child might say or do.

<table>
<thead>
<tr>
<th>Would</th>
<th>Night</th>
<th>Would Not</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Child B</td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td>2. Child B</td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td>3. Child B</td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td>5. Child A is in charge of class money for a trip. Child A tells child B it is his job to collect the money.</td>
<td>Child B</td>
<td>X</td>
</tr>
</tbody>
</table>
11. Child C sits right in front of the class to hear the teacher. This child has trouble hearing and has to wear a hearing aid. Sometimes child C does not hear other kids talking.

For each question below, there are three things that child D might be saying to child C, and three things that child C might say to child D. In each statement, circle the "X" indicating one thing that that child might say or do.

<table>
<thead>
<tr>
<th>Would</th>
<th>Might</th>
<th>Would Not</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Child D</td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td>ask child C to join the scout troop.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2. Child D</td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td>ask child C to eat lunch together at the same table.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>3. Child D</td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td>ask child C to be the captain of the softball team.</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Would</th>
<th>Might</th>
<th>Would Not</th>
</tr>
</thead>
<tbody>
<tr>
<td>4. Child C asks child D to join the scouts.</td>
<td>Child D</td>
<td>X</td>
</tr>
<tr>
<td>join the scouts.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>5. Child C asks child D to eat lunch together at the same table.</td>
<td>Child D</td>
<td>X</td>
</tr>
<tr>
<td>eat at the same table with child C.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>6. Child C is the captain of the ball team. Child C tells child D to handle the ball in a different way.</td>
<td>Child D</td>
<td>X</td>
</tr>
<tr>
<td>change the way the ball is handled.</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
III. Child E wears glasses that are very thick. Child E needs help getting around school because this child can't see very well. Child E sometimes uses a special machine in the back of the room that helps this child see better to read.

For each question below, there are three things that child F might be saying to child E, and three things that child E might say to child F. In each statement, circle the "X" indicating one thing that that child might say or do.

<table>
<thead>
<tr>
<th>Would</th>
<th>Might</th>
<th>Would Not</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Child F</td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td>2. Child F</td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td>3. Child F</td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td>4. Child E asks child F to play a game together.</td>
<td>Child F</td>
<td>X</td>
</tr>
<tr>
<td>5. Child E asks child F to go to the movies with a group of other children. Child F</td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td>6. Child E is the leader of a game. Child E tells child F not to take a turn until child E says so. Child F</td>
<td>X</td>
<td>X</td>
</tr>
</tbody>
</table>
IV. Child G is only in this class for part of the day. This child usually is at a special room in the school. Child G has a very hard time doing school work and doesn't read as well as other kids. Some children say the special room child G goes to is for kids who can't learn.

For each question below, there are three things that child H might be saying to child G, and three things that child G might say to child H. For each statement, circle the "X" indicating one thing that that child might say or do.

1. Child H  X  X  X  ask child G to join a sports team.
2. Child H  X  X  X  ask child G to be the captain of the volleyball team.
3. Child H  X  X  X  ask child G to come visit child H at home.

4. Child G asks child H to play on the same team.

5. Child G is the captain of the volleyball team. Child G tells child H to continue practicing throwing the ball over the net.

6. Child G asks child H to come to visit child G at home.
V. Child J answers a lot of questions in class. The child is one of the best students in the class in reading but has lots of trouble with math. Child J is in the lowest group in math. Child J also is very slow in writing.

For each question below, there are three things that child K might be saying to child J, and three things that child J might say to child K. For each statement, circle the "X" indicating one thing that that child might say or do.


   Child K  X  X  X

2. Child K  Would  Might  Would Not ask child J to be the class safety patrol.

   Child K  X  X  X


   Child K  X  X  X


   Child K  X  X  X  go to the birthday party.

5. Child J is the class safety patrol. Child J tells child K to stop behind the white lines before crossing the street.

   Child K  X  X  X  stop behind the line before crossing.

6. Child J asks child K to go to the park with a group of children.

   Child K  X  X  X  go to the park.
VI. Child L is a good reader and is also good in arithmetic. Child L gets good grades in most classes. Other children like to have child L on their team when they play a game.

For each question below, there are three things that child M might be saying to child L, and three things that child L might say to child M. In each statement, circle the "X" indicating one thing that that child might say or do.

<table>
<thead>
<tr>
<th>Would</th>
<th>Might</th>
<th>Would Not</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Child M</td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td>2. Child M</td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td>3. Child M</td>
<td>X</td>
<td>X</td>
</tr>
</tbody>
</table>

| X | X | X | be in the play. |

5. Child L asks child M to ride bikes together. Child M | X | X | X | ride bikes with child L. |