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CHILDREN'S ATTITUDES TOWARD PERSONS WITH DISABILITIES:
A COMPARISON OF RURAL AND URBAN SCHOOLS

An EdS Field Project

Presented to the

Department of School Psychology

and the

Faculty of the Graduate College

University of Nebraska

In Partial Fulfillment

of the Requirements for the Degree

Specialist in Education

University of Nebraska at Omaha

by

Angela D. Williams

October 2001

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EDS FIELD PROJECT ACCEPTANCE

Acceptance for faculty of the Graduate College,
University of Nebraska, in partial fulfillment of the
requirements for the degree Specialist in Education,
University of Nebraska at Omaha.

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CHILDREN'S ATTITUDES TOWARD PERSONS WITH DISABILITIES:
A COMPARISON OF RURAL AND URBAN SCHOOLS

Angela D. Williams, Ed.S.

University of Nebraska, 2002

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Rural and urban schools often differ in how special education services are delivered. In many rural schools, students who qualify for special education often receive services in general education classrooms. Thus, general education students in rural and urban schools may have different exposure to students with disabilities, which may lead to variations in attitude. Therefore, it is important to assess the attitudes of children toward persons with disabilities. The purpose of the present study was to assess possible differences in children's attitudes toward persons with disabilities in rural versus urban school settings. The participants in the study consisted of 100 children in grades 4 and 6 in rural and urban schools and were administered the Peer Attitudes Toward the Handicapped Scale. It was hypothesized that children from rural school systems would have more positive attitudes toward disabled persons than children from urban schools based on previous research that found that children from rural schools were more accepting of children with disabilities than children from urban schools. The results of the study indicated there was no significant difference in attitudes between students in rural and urban schools. On the other hand, significant differences were found between males and females on all scales.

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Children's Attitudes Toward Disabled Persons:

A Comparison of Rural and Urban Schools

Across the country, serving students with special needs is a challenge for school systems. Over the past two decades, there has been an increase in the need for special education services in all schools. Despite the overall increase in need, urban and rural schools appear to differ in terms of special education service delivery. In rural schools, children who qualify for special education services are often placed into the general education classroom with their peers. Thus, general education students in rural and urban schools may have different exposure to students with disabilities. The differences in exposure may lead to variation in attitudes. Therefore, it is important to assess the attitudes of children toward persons with disabilities in different settings to explore possible differences (Ludlow, 1998).

Before examining possible differences in attitudes, it is important to start by examining the challenges in serving students with disabilities in all schools, and then compare the special education service delivery in rural versus urban schools. One of the challenges in serving students with disabilities is finding qualified personnel to work with students, particularly those schools in rural areas. In the state of Nebraska, the special education population is 13.2% of children. Of the special education population, 92.6% are instructed in the public schools (Nebraska Department of Education, 1999-2000). In many rural schools, a shortage of special education teachers exists (Jacob-Timm, 1995; Berkeley & Ludlow, 1991). In some areas, there may be no qualified special education personnel to work with students with special needs (Ludlow, 1998). Therefore, children who are eligible for special education services are in the same classroom as their nondisabled peers. In urban schools, more special education teachers and classrooms are available; therefore, the full continuum of special education is present (Jacob-Timm,

1995; Perry, 1995). The attrition rate of special education personnel is also a problem in rural schools. Reports of staff turnover have been reported as high as 100% every 3 to 5 years (Ludlow, 1998). Because the shortage of teachers and high attrition rates, many rural schools have been forced to hire special education personnel on emergency licenses and out-of-field authorization in order to fill positions. Furthermore, limited staff development opportunities due to few resources and geographical distance may hinder personnel from providing high quality services to students with special needs in rural schools.

Differences in special education delivery may lead to differences in classroom composition between rural and urban schools, resulting in potential advantages and disadvantages. On one hand, it may be viewed as a strength to have children in one classroom because of students' exposure to children with special needs. In rural schools, even if children with special needs are in a separate classroom, all the children know each other and will have opportunities to interact with them (e.g., lunch, recess) because of sheer lack of numbers. In urban schools, children may never see classmates who are in special education classrooms. Conversely, children in rural schools who need certain special education services may not be receiving the full extent of services that they would obtain if they were in an urban school system (Helge, 1984).

Despite possible advantages and disadvantages in each school type, studying the attitudes of children toward persons with disabilities is important in all schools for determining if there is a need to educate students and prevent negative attitudes toward disabled persons. If special needs children are in regular education classrooms, does this affect the other children's attitudes toward people with disabilities? Changing attitudes before they have become crystallized may be easier than waiting until ideas have formed. Therefore, studying attitudes in children should be a focus in rural and urban schools

alike. School psychologists can play a role in helping change or reinforce attitudes by providing the students with information about disabled persons and working with both children with and without disabilities. In addition, Handlers and Austin (1980) suggested that teachers can help foster positive and accepting attitudes toward peers with disabilities. School psychologists can collaborate with teachers to educate the youth about disabilities.

Although research regarding issues in rural schools has increased, a void still needs to be filled. Also, many of the rural studies have struggled with the definition of "rural schools." Furthermore, few studies have focused on children's attitudes. Although some research has studied children's attitudes, work still needs to be done. Thus, the purpose of the present study is to compare the attitudes of children toward persons with disabilities in rural and urban schools.

Literature Review

When examining previous research on students' attitudes toward individuals with disabilities in rural versus urban schools, it is imperative to examine each component individually before combining them because of the lack of research in the area. In the following sections, rural and urban schools will be compared and contrasted. Next, attitudes and their importance were assessed, as well as previous research in the area. Finally, gender and age were also variables that were examined as to their place in research on children's attitudes toward individuals with disabilities. Together, these areas were combined to provide foundation for the present study.

Rural vs. Urban Schools

Some professionals may believe that rural schools are a dying breed, but data suggest that, despite many school consolidations, many rural schools still exist. In 1994, rural school districts made up the majority of all the school districts in the United States;

however, more students are enrolled in urban schools districts than rural districts. In other words, there are more rural than urban school districts, but the total number of students in rural schools is less than those in urban schools. For example, the national average enrollment size in the 1993-94 school year for rural school districts was 818 students and for urban school districts was 4,888 (McLaughlin, Huberman, & Hawkins, 1997).

When evaluating research in rural schools, one of the major problems is the lack of a consistently applied definition for rural schools. The problem with the inconsistency in definition of rural schools is that schools that are suburban, rather than rural, are being classified as rural schools. The most common definition used for a rural school district is a school that has fewer than 1,000 students, but figures as high as 2,500 students have also been used (Helge, 1984, 1985). One of the problems with using only population figures is that in some cases suburban school systems could then be classified as rural schools. Research by the U.S. Office of Special Education Programs defined rural schools as "districts where the number of inhabitants is fewer than 150 per square mile or located in counties with 60% or more of the population living in communities no larger than 5,000 inhabitants" (Helge, 1984, p. 296). The same research mentioned previously also defined urban schools as having "more than 10,000 students and those within a standard metropolitan statistical area as determined by the U.S. Census Bureau." (p. 296). With urban schools, population tends to be the factor that defines them as urban, and research has not shown an inconsistency in defining urban populations.

Another problem with defining rural schools for research purposes is that these areas vary tremendously in terms of geography and economics (Helge, 1984; Jacob-Timm, 1995). The geography of rural communities ranges from remote islands to clustered communities. Economically, rural communities exist anywhere from depressed lower socioeconomic settlements to high-growth "boom or bust" communities (Helge,

1984). Another concern is that the population can range from high density (e.g., clustered small towns) to low density (e.g., remote locations) and the topography of the land can vary (e.g., islands, deserts, mountains, plains, and sea coasts). Regardless of the type of research approach that has been taken with rural schools, the general consensus is that rural areas are very diverse and difficult to categorize (Kramer & Peters, 1985).

Despite the difficulties in defining rural populations, differences between rural and urban school systems need to be assessed for the purpose of comparing the similarities and differences. Some of the differences that may be relevant to this study are community structure, difficulties in serving students with specific disabilities, and approaches of relevant educational professionals. Helge (1984) examined the differences between rural and urban schools in these areas. In terms of community structure, rural school systems tend to have a sense of “community spirit” and a personalized environment. Conversely, urban schools tend to consist of an environment that is more depersonalized, except within inner-city pockets of distinctive ethnic groups. Bureaucratic policies make interagency collaboration more difficult in nonrural schools. When serving specific disabilities, research with rural schools has shown that low-incidence handicaps are the hardest to serve in these schools, but that the integration of mildly/moderately handicapped students is more accepted than in urban schools. In contrast, urban schools tend to have enough students with low-incidence handicaps to allow them to be clustered for services or for a specialist to be hired. Also, the urban environment tends not to be as attitudinally conducive toward acceptance of mainstreamed mildly/moderately handicapped peers. In addition to the differences between urban and rural schools that Helge (1984) examined, Easter, Shultz, Neyhart, and Reck (1999) suggest that there is a difference in terms of student body composition. Urban schools have a wide variety of ethnic, racial, and special needs groups. On the

other hand, rural schools tend to have small numbers of students with handicaps and diverse ethnic and racial groups. Another difference between the two types of schools is in the approach of relevant educators (Helge, 1984). In rural schools, generalists are needed to perform a variety of tasks and to teach a variety of ages, handicapping conditions, and subjects. Generalists are expected to be "all things to all people." In urban schools, specialists are needed to serve as experts on one topic area or with one age group or disability.

Another area of difference is that children with disabilities are often in the same classrooms as their nondisabled peers in rural settings (Jacob-Timm, 1995). Because of the lack of numbers in rural settings, classrooms are often combined for such activities as music, recess, and art. It is also not uncommon for rural schools to combine several classes of students for field trips or other special activities. Therefore, not only the children in a particular classroom would have contact with a child with a disability, but all the children in the school would have contact with each other (Blanton, Smith, Davidson, & Poppen, 1993). The children in rural schools may have more contact with children with disabilities, which may influence their attitudes differently than children in urban school settings. Although inclusion is becoming more prevalent in urban schools, children in the school system who are not in the same classroom with a child with a disability may not have as much contact with that child as children from rural school systems where classrooms are often combined for various activities.

Attitudes Towards Persons with Disabilities

Myers (1992) defined attitudes as "a belief and feeling that predisposes one to respond in a particular way to objects, people, and events" (p.553). Antonak and Livneh (1988a) had suggested earlier that the definition of "attitude" was more complex and suggested two main dimensions to the definition of attitude. The first dimension is a

continuum of abstractness, ranging from concrete to abstract. For the first dimension, attitudes are judged on how closely they are related to actual behavior. Attitudes become or are more concrete according to the closeness of the relationship between attitudes and behavior. In assessing the second dimension of extensiveness, the cognitive, affective, and behavioral components are assessed. The cognitive component refers to how the attitude referent is mentally conceptualized. With the affect component, the feelings that underlie the attitude are assessed. Finally, the behavioral component is more of a "gray" area. Some researchers believe that attitude and behavior are independent, while others believe that they are dependent. When assessing the behavioral component, researchers assess the actual overt behavior toward the attitude referent. Cognition, affect, and behavior are taken into consideration when assessing the second dimensions (extensiveness) of attitudes. In the present study, the general attitude will be assessed, and the two dimensions will not be specifically addressed.

Antonak and Livneh (1988a) suggested several reasons why measuring attitudes is important including attitudes: (a) help us adjust to the external environment, (b) protect our self-esteem, (c) express our fundamental values, (d) promote understanding of the world around us, and (e) may also serve as reinforcers. For all of the above stated reasons, attitudes are very important for researchers to examine because they are a part of each individual and reflect how he/she relates to him/herself and others. Therefore, the present study intends to measure children's attitudes to provide further evidence how and why an individual related to disabled peers. The study of attitudes may provide information as to the values, understanding, and actions of students.

Studying attitudes is also important because attitudes may help predict future behaviors. Although attitudes are not necessary or a sufficient cause of behaviors, they have been found to be contributing factors to behavior (Antonak & Livneh, 1988b).

Attitudes are also a mediator between environmental stimuli and an individual's response. However, attitudes may be only one of a variety of underlying variables that predict a person's subsequent behavior. An alternative explanation could be that attitudes combine with external influences to determine behavior. Still others have suggested that behavior can influence one's attitude (Myers, 1992). Examining attitudes in the present study is important because children's attitudes toward disabled peers may influence their behavior toward or acceptance of that individual. Although researchers have not established a clear direction of influence for attitudes and behavior, it does appear that the two can influence each other.

Roberts and Lindsell (1997) examined the relationship between children's attitudes and their behavior towards peers with disabilities in several different school systems. Fourth and fifth grade students were asked to complete the Peer Attitudes Toward the Handicapped Scale (PATHS) and a behavior intention scale. Although the PATHS scale consists of three subscales, physical, learning, and behavioral disabilities, this study used only the physical subscale. The teachers, school principals, and mothers completed a scale that also measured each of their attitudes toward interacting with persons with disabilities. The results of the study showed that children's attitudes toward peers with disabilities were the most significant predictors of their intentions to interact or befriend the child with a disability. Children with more positive attitudes were more likely to say they would befriend a peer with a disability. Conversely, children with more negative attitudes were more likely to report lower levels of interactions with a classmate. In addition, the authors reported that contact with students with disabilities in the classroom was related to a more positive attitude toward those students. Furthermore, the attitudes of parents, teachers, and school principals were predictors of children's behavior toward classmates with a disability.

Studying attitudes toward persons with a disability is crucial because educators have found that attitudes can serve as obstacles to integrating disabled children in schools (Handlers & Austin, 1980). Often, children without disabilities have negative attitudes toward children with disabilities, which can make it extremely difficult for them to adjust to an integrated classroom. Handlers and Austin (1980) addressed this issue by enrolling junior and senior high students in a training program that provided them with more knowledge about and exposure with handicapped people. Students evaluated their own attitude change and reasons for any or no change by answering teacher questions. Students who participated reported that changes in their attitudes toward people with disabilities were most influenced by direct contact with individuals. Awareness and knowledge were also cited as reasons for attitude change.

Rapier, Adelson, Carey, and Croke (1972) found evidence that attitudes toward the individuals who are physically handicapped are influenced by the degree of contact one has with them. In other words, the more contact an individual has with an individual with a physical handicap, the better the attitudes toward that person. Degree of contact was determined by measuring children's attitudes before an orthopedically handicapped unit was opened on school grounds and then again a year after the unit had been established. Results showed a positive shift in students' attitudes after having contact with peers with a handicap. The findings show the importance of providing favorable interactions with children with handicaps, which can provide the opportunity for children without handicaps to develop a more positive and realistic perception of this population. Further, nonhandicapped children's attitudes can be changed to a more positive perception with exposure. Children with handicaps were seen as less weak and in need by their peers who did not have handicaps.

Tripp, French, and Sherrill (1995) examined students' attitudes toward peers with disabilities in integrated and segregated physical education settings because physical education classes often experience integration in the schools. The PATHS scale was utilized to measure students' attitudes on the overall scale, as well as the three subscales (physical, learning, and behavioral). Results of the study suggested that there was no difference between integrated and segregated settings on students' overall attitudes toward individuals with disabilities. A significant difference was found between the two settings on the physical subscale with the students in the segregated class having more positive attitudes than students in the integrated class. The reverse was found for the behavioral subscale. The authors suggested that these findings may be affected by the setting in that physical education is a class with a competition format, which could factor a more negative attitude, particularly to students with physical limitations. On the other hand, students with behavioral disabilities may be viewed as entertaining in the physical setting. The authors also found a difference among the three subscales with students viewing peers with a physical disability more favorably than both learning and behavioral, and learning was viewed more favorably than behavioral. This finding indicates a possible hierarchy of disabilities.

Darrow and Johnson (1994) examined junior and senior high school music students' attitudes toward persons with disabilities. The Disability Factor Scale, consisting of 75 items, was administered to students during summer music camps. The scale measured attitudes toward specific disabilities and across disabilities. Results of their study showed that junior high students expressed a lower level of sensitivity toward individuals with disabilities than high school students. The authors also assessed which disabling conditions were more accepted than others. Results in this area showed that visible scars, heart trouble, and deafness were the three most accepted disabilities, while

paralysis, AIDS, and blindness were the three least accepted conditions. The instrument that was used in this study did not assess why some conditions were more or less accepting than others.

Towfighy-Hooshyar and Zingle (1984) conducted an earlier study on students' attitudes toward integrated peers with handicapping conditions. Students in grades 2, 4, and 6 were interviewed individually using the Peer Attitude Scale. Furthermore, the schools that these students attended were characterized as low-contact or high-contact determined by the degree of integration between regular-class and students with handicaps. Results revealed that contact was the main variable affecting the differences in attitudes, indicating that contact may be a major factor in examining attitudes.

Much of the research regarding persons with disabilities has surrounded the topic of peer acceptance, which could be a combination of behavior and attitude. Peer acceptance reflects the degree that classmates like to work and play with one another (Fujiki, Brinton, Hart, & Fitzgerald, 1999). When investigating peer acceptance in rural and urban schools by using the Peer Acceptance Index, Blanton, Smith, Davidson, and Poppen (1993) found that in grades 4-6 peer acceptance decreased progressively in succeeding grade level in urban schools, but not in rural schools. In fourth grade, rural-urban comparisons showed that there was not a difference in the levels of peer acceptance. But a significant difference was found when comparing fifth and sixth grader. They also found that there was a difference in peer acceptance with children from rural school systems being more accepting. The researchers indicated that the differences that were found in their study were due to contextual factors not developmental factors. Therefore, school type was an important variable in this study. These researchers also suggested that this was only one study and there was a need for more research comparing rural and urban students. A final comment from these researchers was that often

descriptions of rural populations have focused on the notion that fewer resources are available to students in the rural areas, but this may not always be a disadvantage.

Of the studies that have examined peer acceptance, few have focused on the entire school system as opposed to specific classrooms. One study examined peer acceptance and self-concept in inclusive classrooms in grades 2-8, dividing children into four categories: at risk for school failure, having a disability, using English as a second language, or noncategorized (Stanovich, Jordan, & Perot, 1998). The results showed that peer acceptance was significantly higher for the noncategorized children than for each of the three identified groups. However, those students who had disabilities and those for whom English was a second language scored significantly lower on peer acceptance than those children who were identified at risk. The authors suggest that one rationale in creating heterogeneous classrooms was to increase peer acceptance of children with special needs gives them a sense of belonging (Stanovich, Jordan, & Perot, 1998). Conversely, the results of this study would suggest that this goal in not being met for the special populations. Therefore, it may be equally important to examine school systems, as a whole, not just individual classrooms to determine overall attitudes toward disabled persons, which may influence interactions and peer acceptance.

Middle Childhood

Researchers have suggested that regular-education students' perceptions of their classmates in grades 5-8 tended to be rigid and fixed when measured at different times throughout the school year (Hartup, 1984; Putnam, Markovchick, Johnson, & Johnson, 1996). This research supports the idea that children's perceptions tend to remain constant during the middle childhood years. During the middle childhood period, there is also an increase in both the number and stability of friendships (Blanton, Smith, Davidson, & Poppen, 1993). Researchers have also found that the impact of early experiences and

their related emotions and cognitions have a major role in influencing a child's attitude (Livneh, 1982). It may be that, during the elementary years, children form attitudes toward persons with disabilities, which remain steady over their lifetime. Research examining children's attitudes toward their peers with handicaps has found that younger children tend to have less negative attitudes than older children toward handicapped peers (Wylie, 1975). In the present study, children in their middle childhood years will be assessed because it is believed that their attitudes will be more fixed than attitudes of younger children.

Gender

Gender is another important variable in the study of attitudes toward persons with disabilities. Research findings have been inconsistent as to whether or not a true gender difference exists. Results of the previously addressed study by Darrow and Johnson (1994) revealed that junior and senior high males were less sensitive than females toward individuals with a disability. With every disability case in the study, females had more positive attitudes toward people with disabilities than males. Tripp, French, and Sherrill (1995) found similar results using the Peer Attitudes Toward the Handicapped Scale (PATHS), which is the scale used in the present study, with females having more positive attitudes than males across all scales. On the other hand, other researchers have not found gender differences in terms of attitudes toward disabled peers. Clunies-Ross and Thomas (1986) measured attitudes toward disabled persons using the PATHS and their results indicated there was an absence of gender differences with children in grades 4 to 6. Furthermore, Blanton, Smith, Davidson, and Poppen (1993) found no gender differences in their study on peer acceptance among rural and urban boys and girls in grades 4-6.

Conclusion

Rural and urban schools differ in many ways, including providing services to special needs children. Therefore, examining attitudes of children toward persons with disabilities is important in both urban and rural schools in order to fill a void in research and provide information for practical use to educators.

The Present Study

Minimal research in the area of children's attitudes toward persons with disabilities in rural and urban schools exists. Blanton, Smith, Davidson, and Poppen (1993) examined peer acceptance in rural and urban schools and Roberts and Lindsell (1997) studied children's attitudes and behavioral intentions toward peers with disabilities served as a basis for the present study, which intended to measure children's attitudes toward disabled persons in rural and urban school systems by asking 4th and 6th grade students to complete the PATHS. The children in the study were in grades 4 and 6; therefore, the participants are in their middle childhood period. Furthermore, gender and grade were examined in the present study because research is still in its infancy in these areas.

The following questions were addressed in the present study: Do attitudes toward persons with disabilities differ between children in rural and urban schools during middle childhood? Is there a difference in contact with individuals with disabilities in rural versus urban schools? Do attitudes toward individuals differ between gender and grade?

It was hypothesized that children from rural school systems would have more positive attitudes toward persons with disabilities than children from urban schools. Previous research has suggested that children in rural areas are more accepting of peers with disabilities than children in urban schools (Blanton, Smith, Davidson, & Poppen, 1993). Based on previous research, it was also hypothesized that females would have

more positive attitudes than males, and students in 4th grade would have more positive attitudes than students in 6th grade.

Method

Participants

The participants in the study consisted of 100 children (47 males, 53 females) in grades 4 and 6 from rural and urban schools. The participants were sampled from 3 rural schools and 2 urban schools in the Midwest. Forty female and 31 male students were from the rural districts while 16 male and 13 females were from the urban schools (See Table 1). Of the total participants, 29 were from urban schools and 71 were from rural schools. Forty-five participants were in the 4th grade while 55 were 6th grade students. Of the 45 students in the 4th grade, 31 were from rural schools while 14 were from urban schools. With 6th grade students, 40 were from rural schools and 15 attended the urban schools. The percentage of students on free or reduced lunches for the rural schools was 38% while the percentage for urban schools was 39%. In terms of ethnic composition, 83% of the students from urban schools were Caucasian while 92% of the students from rural schools were Caucasian. The second largest ethnic group for each school type was Hispanic. The participants were not asked to identify whether they themselves had a disability. The schools were matched on percentage of special education students in the school district, which was approximately 13% of the total student population. The schools were also matched on special education service delivery model, which consisted of the majority of services located in the special education or resource room and a few students were served in their mainstream classrooms.

In the present study, the rural schools qualified under either of the two specifications of the definition established by the U.S. Office of Special Education Programs because the total population of the towns that these rural schools are located

ranges from 400-2700, which is well below 5,000 inhabitants. Also, the rural areas are farming communities; therefore, there were less than 150 inhabitants per square mile. The rural schools were in smaller towns in the Midwest that are medium in population density and the topography of the land consists mostly of flat plains. The urban schools were deemed urban by the U.S. Census Bureau information, and are located in the Midwest region.

Instruments

It is pertinent to define disability in the present study. The word disabled translates to mean a condition that “results from a loss of physical functioning or from difficulty in learning and social adjustment that interferes with one’s normal growth and development” (Hardman, Drew, & Egan, 1999, p. 3). Examples of disabilities might include hearing loss, cerebral palsy, a learning disability, or a behavioral disability.

The study utilized the PATHS (Bagley & Greene, 1981). Although the word “handicapped” is used in the scale, the scale was designed to measure peer attitudes toward children with “disabilities” (Clunies-Ross & Thomas, 1986). The scale, which was designed for use in school settings, consists of 30 short scenarios about different individuals or behaviors that are seen in children with disabilities (Appendix A). The final statement of the scenarios is for the students to complete by circling where the student should be placed. The answers are on a five-point Likert scale, ranging from “work with me in my group” to “stay at home and not come to school.” Responses are scored with the higher total score indicating a more positive attitude toward the peers with disabilities. The theory behind the scale, according to Bagley and Green (1981), was that the success of teaching students with and without disabilities in the same environment is somewhat dependent on the development and maintenance of positive attitudes toward individuals with disabilities (Tripp, French, & Sherrill, 1995).

The scenarios are divided into three subscales (i.e., physical, learning, and behavioral disabilities), as well as a total score. The physical subscale consists of scenarios of conditions such as blindness, deafness, cerebral palsy, and heart conditions. The learning subscale consists of difficulties with study skills and school subjects, learning rate, and fluency in reading. The behavioral subscale includes emotional and psychological difficulties. Six scenarios of children without disabilities were added to the original scale to provide further information about children's attitudes toward others who are not disabled. These six scenarios described students who did not have specific disabilities and were randomly placed among the original scale items. Each of the three categories of disabilities was addressed with two items in each category. These six additional items were utilized to help determine if the students' responses may be random or inconsistent, as well as provide further information as to their attitudes toward all students.

According to Bagley and Greene, as cited in Clunies-Ross and Thomas (1986), the PATHS was standardized on a sample of children in grades 4-8. Previous studies that have used the PATHS have read the scenarios to the students although the scale is intended to be at a readability level at fourth grade and below (Clunies-Ross & Thomas, 1986; Roberts & Lindsell, 1997). The internal consistency was reported at .89 and the test-retest coefficient was .75 (Roberts & Lindsell, 1997; Clunies-Ross & Thomas, 1986; Tripp, French, & Sherrill, 1995). Furthermore, Bagley and Greene reported that the scale showed good construct and factorial validity (Roberts & Lindsell, 1997).

In addition to the PATHS, the participants were asked to complete a cover sheet asking the child's grade; gender; if they know a person with a disability in their school, class, or neighborhood; if they know an adult with a disability; and how often they interact with these individuals (Appendix B). The researcher coded the sheet according to

the type of school in which the child is enrolled, that is, rural or urban. The cover sheet also provided a definition of disabled for the participants to read before they answered the questions.

Procedure

Parental informed consent forms with a cover letter were sent home with each student in the targeted classrooms. Those students who returned the consent form were in a group that was given the questionnaire, while the other students who did not return the consent form engaged in an alternative activity. The primary investigator trained two research assistants to distribute the questionnaires to students in grades 4 and 6. The training consisted of a half-day session where the research assistants were instructed on the rate to read the questionnaire, monitoring student behavior, addressing questions, and procedure in terms of handing out assent forms and questionnaires. The children were asked to fill out the questions to the best of their abilities and to provide honest answers. The directions and questionnaire items were read aloud to the students by the research assistants in order to control for the children's readability level. The groups of participants consisted of approximately 10-15 students in each group. The questionnaires were collected by the research assistants when the children had completed them.

There was a difference in the return rate of parent permission forms with a 50% return rate for rural schools and a 16% return rate for urban schools (See Table 2). All schools sent out the permission forms one week prior to the date of data collection. Furthermore, each principal reportedly encouraged teachers to prompt students to hand in completed parent permission forms.

Data Analyses

A computer program using SPSS Windows Version 8.0 was used to assess the differences in attitudes. Separate 2 x 2 x 2 (School type x Grade x Gender) ANOVAs

were conducted for each dependent variable on the questionnaire, as well as on the cover sheet. The independent variable of school type was coded either rural or urban. On the PATHS, the total score, the total score without the additional scenarios (the original PATHS), the three subscales of the PATHS (i.e., behavioral, learning, and physical), and the subscale of the additional six scenarios of students without disabilities were the dependent variables. The dependent variables from the cover sheet that assessed demographic information of the participants consisted of whether the participant knew a peer with a disability in the various settings of school, class, sports, neighborhood, and church group; the amount of contact with the peer with a disability in each setting; and if the participant knew an adult with a disability. Main effects and interactions were analyzed for each dependent variable. Although amount of contact was an original dependent variable, the results were not used because of the small number of cases in each group. Finally, means were calculated for each subscale by dividing the score by the number of items in each subscale. The scales were not compared statistically because they were not coded as standardized scores.

Results

First, the mean and standard deviations for each item were reported in Table 3. Next, the results of the differences in attitude between school type were examined. There was no main effect for school type on the total scale $F(1,92) = 0.022$, *ns*. Therefore, there was no significant difference in the total scale between rural ($M = 129.71$, $SD = 21.08$) and urban ($M = 126.24$, $SD = 23.23$) schools, $F(1,99) = 10.22$, *ns*. Thus, students in rural and urban schools did not differ in their overall attitudes toward persons with disabilities. The mean and standard deviations for the subscales and total scale are reported in Table 4. However, there was a significant main effect for school type on the subscale that consisted of the additional six scenarios of students without disabilities $F(1, 92) = 8.48$, *p*

< .05. In fact, there was a significant difference found between students from rural ($M = 28.93$, $SD = 2.00$) and urban ($M = 26.69$, $SD = 5.04$) schools on the six additional scenarios of students without disabilities, $F(1,99) = 10.22$, $p < .05$. No significant main effects or interactions were found between the two school types on the learning, behavioral, and physical subscales.

A main effect for gender was found on all the dependent measures. A significant difference was found between boys and girls in the total attitude scale, $F(1,99) = 24.02$, $p < .05$. Females ($M = 137.72$, $SD = 21.55$) had more positive attitudes than males ($M = 118.55$, $SD = 16.92$) (See Table 5). When comparing means, females also had more positive attitudes on the physical scale, $F(1,99) = 15.85$, $p < .05$, the learning scale, $F(1,99) = 14.26$, $p < .05$, and the behavioral scale, $F(1,99) = 14.10$, $p < .05$, than males. Females ($M = 29.11$, $SD = 2.10$) also had significantly more positive attitudes than males ($M = 27.34$, $SD = 4.14$) on the six additional scenarios of individuals without disabilities. Thus, overall, females had more positive attitudes than males. There was also a significant interaction found between school type and gender on the physical subscale $F(1,92) = 4.20$, $p < .05$. Females in both rural and urban schools had more positive attitudes than males, but the gap between males and females was much wider for students in urban schools, as compared to rural schools where the students' responses were closer.

Next, grade was examined to assess any possible differences in attitudes. No main effects were found for grade. The only significant difference between grades was on the learning subscale, $F(1,99) = 4.764$, $p < .05$. On the learning subscale, 4th grade students ($M = 35.60$, $SD = 9.30$) reported more positive attitudes than 6th grade students ($M = 32.24$, $SD = 6.01$).

The additional cover sheet regarding whether or not the participant knew a person with a disability in various settings and the amount of contact with that person was

analyzed with the three independent variables of grade, gender, and school type in a 2 x 2 x 2 ANOVA. A main effect for school type was revealed on whether students knew a peer in their school with a disability, $F(1, 89) = 4.77, p < .05$, and whether the students knew a peer in their classroom with a disability $F(1, 90) = 26.48, p < .05$. However, there were no main effects for gender or grade. There was an interaction for grade and gender on whether a student knew a peer on their sports team $F(1, 91) = 5.38, p < .05$. More males in 4th grade reported to know a peer with a disability on their sports team than females, while more females in the 6th grade reported to know a peer with a disability on their sports team than males.

Along with a main effect, a significant difference was found between students in rural and urban schools and whether they knew a peer with a disability in school, $F(1, 96) = 4.60, p < .05$. Seventy-nine percent of students in rural schools reported knowing a peer in school with a disability as compared to fifty-nine percent of students from urban schools. More students from rural schools also reported knowing a peer in their class than students from urban schools, $F(1, 97) = 29.96, p < .05$. Seventy percent of students from rural schools reported knowing a peer with a disability in their class when compared to seventeen percent of students from urban schools. An additional significant difference found between students in rural and urban schools was that students in rural schools reported playing with a peer with a disability in a church group more than students from urban schools, $F(1, 99) = 4.85, p < .05$. On the other hand, there was not a significant difference between rural and urban students who reported that they knew a person in their church group with a disability, $F(1, 99) = 0.03, ns$. Furthermore, there were no significant differences found between students in rural and urban schools on whether they knew an individual on their sports team with a disability and whether they knew an adult with disability.

Discussion

Results of the present study indicate that there is not a difference in students' attitudes toward persons with disabilities in rural versus urban schools. This finding rejects the hypothesis that students from rural schools would have more positive attitudes toward persons with disabilities. One possible reason for similar attitudes in students, regardless of school size, is that media may bring equal information to students all over the nation. With the internet and television, students from all parts have access to the same information, regardless of location. Another possible reason could be that transportation has also increased people's ability to travel throughout the country, and becoming exposed to various settings. Therefore, students in rural communities may not be as isolated from outside influences as they once were.

It should be noted that students from urban schools rated the scenarios of children without disabilities significantly lower than students from rural schools. In other words, students in urban schools rated the students without disabilities less positively than students in rural schools. This could mean that students from urban schools were not reporting completely valid answers. For example, the students may have been randomly responding to the questions or had a negative response bias throughout the questionnaire. On the other hand, this may indicate that the students from urban schools who completed the questionnaire did not identify with the students without disabilities. These students may have classified themselves as fitting within a certain group and that they, themselves, did not belong in a group with the students without disabilities.

Although there was not a difference found between rural and urban schools, the students in rural schools did report knowing a peer in their school and class with a disability more often than students from urban schools. This finding is not surprising

considering the differences in rural and urban schools in the special education service delivery and the lack of students in rural schools, allowing most students to know every peer in their school. Although rural schools tend to have small numbers of students with disabilities, the majority of the students in the school know this student(s) with a disability. Overall, the findings suggest that contact did not impact attitudes in this study, which contradicts the results found by Rapier, Adelson, Carey, and Croke (1972) and Handlers and Austin (1980). These studies both found that changes in attitudes that were found were due to direct contact with individuals with disabilities. Both of these studies were more than 20 years ago; thus, the present study presents more current information on this topic. Future research should further examine the role that contact with individuals with disabilities plays in attitudes towards these people.

The present study offers insight into the inconsistency that has been found in attitudes between males and females. Across all scales, females were found to report more positive attitudes than males. In Darrow and Johnson's (1994) study of junior and senior high school students' attitudes toward individuals with disabilities, females had more positive attitudes toward people with disabilities than males in every disability case. Tripp, French, and Sherrill (1995) also found that females had more positive attitudes than males of students ages 9 to 12. The present study found the same results in that females reported more positive attitudes toward individuals with disabilities than males across all three subscales and the overall total scale. Females reported more positive attitudes toward the individuals without disabilities, which may indicate that females have a more positive attitude toward others in general, not just to others with disabilities. Interestingly, Clunies-Ross and Thomas (1986) did not find a gender difference in their study of attitudes in grades 4 and 6 using the PATHS as the measure of attitudes. Therefore, the present study, which measured students' attitudes in grades 4 and 6,

directly contradicts Clunies-Ross and Thomas's (1986) findings. One possible reason for the contradiction in findings may be that the Clunies-Ross and Thomas (1986) study was conducted in Australia, whereas the present study was conducted in the United States. That is, there could be a difference between cultures. The present study is in accordance with recent findings on gender differences in attitudes in the United States. Thus, the present study provides evidence supporting that gender differences in attitudes do exist in students during the middle childhood years.

An additional difference that was found in the present study was the difference between students in grades 4 and 6 in terms of their attitudes toward students with learning disabilities. Students in the 4th grade had more positive attitudes when compared to their 6th grade counterparts on the learning disability subscale. However, there was not a significant difference on the physical subscale, behavioral subscale, or total scale. Previous research (Darrow & Johnson, 1994) has examined differences in attitudes toward different types of disabilities. The present study differs in that it examined three different categories of disabilities, not different types of disabilities. For example, disabilities such as blindness, deafness, or paralysis would all fall into the physical disability category, whereas the Darrow and Johnson (1994) study examined attitudes toward each disability individually. In the Tripp, French, and Sherrill (1995) study used the PATHS scale but did not examine differences by age or grade. One possible explanation for this finding may be that the students in 6th grade are more concerned with getting good grades than students in 4th grade. Therefore, they did not want students in their group whom they felt could influence the academic performance of the group. However, the present study may not have a large enough difference in age to provide for a definite difference between groups.

Another contribution to research that was gained in the present study was with the modifications that were made to the original PATHS. The additional scenarios provided information about students' attitudes toward individuals without disabilities, as well as students with disabilities. This additional information provides the researcher with more information in which to interpret the data, such as whether scores may be inconsistent or random. Information is also provided as to what students' attitudes are to all students, not only students with disabilities.

In discussing the different categories (physical, learning, and behavioral) used in the present study, it is important to also note that there was a difference among the means of the three scales on students' responses. Students' attitudes toward individuals with physical disabilities were more positive than attitudes toward either learning or behavioral disabilities. Also, students rated individuals with learning disabilities more positively than those individuals with behavioral disabilities. Thus, there was a difference between the three categories of disabilities, indicating a possible hierarchy, which supports findings of previous research (Tripp, French, & Sherrill, 1995). One possible reason for the difference is that much is done in the media to inform the public about physical disabilities, and individuals who have overcome their disabilities to accomplish various feats. Another reason for the difference could be the students view individuals with learning and behavioral disabilities to have control over their disability and not view it as an actual disability, as they would a physical disability. A final possible reason that behavioral disabilities were rated the least positive is that students do not want to associate with someone who they believe has behaviors that could get them in trouble or cause havoc in the group. Despite the reason for the difference, this finding demonstrates the need to educate students about the different categories of disabilities and further examine possible differences in research. Furthermore, the results demonstrate how

attitudes may be multidimensional structure that is more than just the sum of its parts. Future research will need to further examine the possible differences among the subscales in which standardization of the scores on the three subscales would be necessary to directly compare the subscales for statistical significance.

Another factor that may influence the results of the present study was the return rate of parental permission forms (see Table 2). It is interesting that the rural schools had a much higher return rate than the urban schools. One possible reason for this is the "community spirit" that is often described in many rural schools and communities. Parents in rural communities may feel directly connected to the school. Another possible reason for the low return rate in the urban schools is that because of their proximity to research institutions, they may have multiple offers to participate in research. Whatever the reason for the difference in return rate, this could affect the results in the present study because the students from the urban schools may be a selective sample. In fact, two students volunteered that their parents had disabilities and that is why they wanted the students to participate in the study. Therefore, these students may not be representative of the student body population. On the other hand, because the return rate was high in rural schools, there is a large chance that some students with disabilities themselves participated in the study. For example, the investigator knows that at least three students with disabilities participated in the study in the school that had a 100% return rate because the demographics of the classes shared by the principal indicated that there were three students with disabilities in the classes. The percentage of students with disabilities in the classes is small when compared to the total rural sample, which should not affect the results.

Despite some differences found in the study, the overall scores on all three subscales and the total subscale tended to remain around the middle to lower end of the

scale, which indicates more negative or neutral attitudes. In fact, several responses were recorded that placed the individuals in the scenarios working at home and not coming to school. These lower scores indicate that work needs to be done to educate youth about disabilities in hopes of creating more positive attitudes. When comparing the scores on each of the scales to the scores in Tripp, French, and Sherrill's (1995) previous study using the PATHS scale, the scores are extremely similar. Over six years have passed since the Tripp, French, and Sherrill study and some changes have occurred in the education systems since that time, but these changes do not appear to have impacted students' attitudes toward individuals with disabilities.

School psychologists can play a role in helping to change attitudes by collaborating with teachers, as well as directly educating students about disabilities. The role of the school psychologist is changing and more of an emphasis is being placed on working with not just students who have special needs, but the entire student population. Although students should be educated about all disabilities, the present study suggests that it may be important to emphasize certain disabilities (e.g., behavioral) where students may not have as much background knowledge as other disabilities. Furthermore, inclusion is becoming more common today in many schools. The present study indicates potential problem areas that need to be considered and assessed when discussing inclusion of students with disabilities in general education classrooms. Working with teachers and students to become more informed about disabilities is a role for the school psychologists of the 21st century.

When generalizing the results of the present study, limitations of the study need to be considered. First, the sample size was rather small, particularly the number of students from urban schools. Future research needs to expand the number of participants, as well as number of different schools in the study. Second, based on the return rate from urban

schools, these students may be a selective sample. Further investigations should attempt to obtain a larger percentage of the urban population. An investigation why there is a difference in return rate for the different types of schools would also shed light on the present study, as well as differences between rural and urban schools. Third, because of the difference in return rate, there was an uneven sample size in the present study. Students from rural schools made up seventy percent of participants in the present study. Fourth, a few students in the rural schools may have had disabilities themselves. Although this should not have significantly impacted the results, future research may want to determine which students do and do not have a disability. Finally, questionnaire data can be problematic in that it is not assuredly indicative of actual student behavior.

The present study is a beginning step in assessing children's attitudes toward persons with disabilities in rural and urban schools even if a significant difference between students in rural and urban schools was not found in the present study. On the other hand, the present study demonstrated a significant difference between genders, with females reporting more positive attitudes toward individuals with disabilities, indicating that there are differences in all schools. Therefore, assessing students' attitudes toward individuals with disabilities is an important part of providing services and helping integrate students with disabilities into the classroom. School psychologists and other educators need to become activists for educating and working with all students in hopes to change negative attitudes or reinforce positive ones.

References

Antonak, R. F., & Livneh, H. (1988a). Introduction. In The measurement of attitudes toward people with disabilities (pp. 5-20). Springfield, IL: Charles C Thomas.

Antonak, R. F., & Livneh, H. (1988b). General attitudes toward people with disabilities. In The measurement of attitudes toward people with disabilities (pp. 123-164). Springfield, IL: Charles C Thomas.

Bagley, M. T. & Greene, J. F. (1981). Peer attitudes toward the handicapped scale. Austin, TX: Pro-Ed.

Berkeley, T. R., & Ludlow, B. L. (1991). Meeting the needs of special student populations in rural locales. In A. J. De Young (Ed.), Rural education issues and practice (pp. 203-239). New York: Garland.

Blanton, P., Smith, D. J., Davidson, P. M., & Poppen, W. A. (1993). Peer acceptance in middle childhood among rural and urban boys and girls. Journal of Genetic Psychology, 154 (2), 237-248.

Clunies-Ross, G. & Thomas, M. (1986). Use of the peer attitudes toward the handicapped scale in Australia: Grade differences in the scores of primary school students. Australia and New Zealand Journal of Developmental Disabilities, 12 (4), 257-261.

Darrow, A., & Johnson, C. M. (1994). Junior and senior high school music students' attitudes toward individuals with a disability. Journal of Music Therapy, 4, 266-279.

Easter, L. M., Shultz, E. L., Neyhart, T. K., & Reck, U. M. (1999). Weighty perceptions: A study of the attitudes and beliefs of preservice teacher education students regarding diversity and urban education. Urban Review, 31 (2), 205-220.

Fujiki, M., Brinton, B., Hart, C. H., & Fitzgerald, A. H. (1999). Peer acceptance and friendship in children with specific language impairment. Topics in Language Disorders, 19 (2), 34-48.

Handlers, A., & Austin, K. (1980). Improving attitudes of high school students toward their handicapped peers. Exceptional Children, 47 (3), 228-229.

Hardman, M. L., Drew, C. J., Egan, M. W. (1999). Multidisciplinary view of exceptionality. In Human exceptionality: society, school, and family. (p. 3). Needham Heights, MA: Viacom.

Hartup, W. W. (1984). The peer context in middle childhood. In W. A. Collins, (Ed.), Development during middle childhood (pp.240-283). Washington, DC: National Academy Press.

Helge, D. (1984). The state of the art of rural special education. Exceptional Children, 50 (4), 294-305.

Helge, D. (1985). The school psychologist in the rural education context. School Psychology Review, 14 (4), 402-420.

Jacob-Timm, S. (1995). Best practices in facilitating services in rural settings. In A. Thomas, & J. Grimes (Eds.), Best practices in school psychology (pp. 301-310). Washington, DC: National Association of School Psychologists.

Kramer, J. J., & Peters, G. J. (1985). What we know about rural school psychology: A brief review and analysis. School Psychology Review, 14 (4), 452-456.

Livneh, H. (1982). On the origins of negative attitudes toward people with disabilities. Rehabilitation Literature, 43 (11-12), 338-346.

Ludlow, B. L. (1998). Preparing special education personnel for rural schools: Current practices and future directions. Journal of Research in Rural Education, 14 (2) 57-75.

McLaughlin, D. H., Huberman, M. B., Hawkins, E. K. (1997). Characteristics of small and rural school districts (Report No. NCES 97-529). Washington, DC: National Center for Education Statistics.

Myers, D. G. (1992). Social psychology. In Psychology (p. 551-584). New York: Worth.

Nebraska Department of Education. (1999-2000). Nebraska special education statistical report. (Special Education Student Information System Publication).

Perry, J. D. (1995). Best practices in facilitating services in urban settings. In A. Thomas & J. Grimes (Eds.), Best practices in school psychology (pp. 289-299). Washington, DC: National Association of School Psychologists.

Putnam, J., Markovchick, K., Johnson, D. W., & Johnson, R. T. (1996). Cooperative learning and peer acceptance of students with learning disabilities. Journal of Social Psychology, 136 (6), 741-752.

Rapier, J., Adelson, R., Carey, R., & Croke, K. (1972). Changes in the children's attitudes toward the physically handicapped. Exceptional Children, 39, 219-223.

Roberts, C. M., & Lindsell, J. S. (1997). Children's attitudes and behavioral intentions toward peers with disabilities. International Journal of Disability, Development, and Education, 44 (2), 133-145.

Stanovich, P. J., Jordan, A., & Perot, J. (1998). Relative differences in academic self-concept and peer acceptance among students in inclusive classrooms. Remedial and Special Education, 19 (2), 120-126.

Towfighy-Hooshyar, N., & Zingle, H. W. (1984). Regular-class students' attitudes toward integrated multiply handicapped peers. American Journal of Mental Deficiency, 88, 630-637.

Tripp, A., French, R., & Sherrill, C. (1995). Contact theory and attitudes of children in physical education programs toward peers with disabilities. Adapted Physical Activity Quarterly, 12, 323-332.

Wylie, R. E. (1975). Attitudes of children toward their handicapped peers. Childhood Education, 52, 171-173.

Table 1

Demographics of Participants

	Rural	Urban
Males	31	16
Females	40	13
4 th Grade	31	14
6 th Grade	40	15
Total	71	29

Table 2

Return Rate of Parental Permission Forms

Schools	# returned	# of possible students	Percentage
Rural School A	25	25	100%
Rural School B	40	71	56%
Rural School C	<u>6</u>	<u>46</u>	<u>13%</u>
Total	71	142	50%
Urban School A	14	88	16%
Urban School B	<u>15</u>	<u>90</u>	<u>17%</u>
Total	29	178	16%

Table 3

Descriptive Statistics for Individual PATHS Items

Item	Mean	SD
1	3.55	1.28
2	4.34	1.17
3	4.48	1.09
4	3.64	1.24
5	4.58	0.82
6	2.65	1.07
7	2.70	1.49
8	4.00	1.09
9	3.44	1.33
10	4.77	0.71
11	3.20	1.11
12	3.71	1.37
13	3.75	1.39
14	3.89	1.36
15	3.11	1.32
16	4.65	0.77
17	3.00	1.26
18	3.73	1.43

Table 3 (cont)

Descriptive Statistics for Individual PATHS Items

Item	Mean	SD
19	3.85	1.42
20	2.37	1.07
21	3.32	1.17
22	3.44	1.38
23	2.53	1.06
24	2.58	1.51
25	4.80	0.57
26	3.74	1.40
27	2.50	1.08
28	3.32	1.34
29	3.75	1.23
30	4.71	0.74
31	4.11	1.31
32	2.80	1.20
33	2.07	1.16
34	3.79	1.44
35	3.06	1.70
36	4.77	0.68

Table 4

PATHS Scores by School Type

Scale	<u>Rural</u>		<u>Urban</u>	
	Mean	SD	Mean	SD
Physical Subscale*	46.21	9.87	44.48	11.12
Learning Subscale*	33.27	7.94	34.93	7.49
Behavioral Subscale*	21.31	5.81	20.14	6.46
Without Disabilities Items**	28.93	2.00	26.69	5.04
Total Scale	129.71	21.08	126.24	23.23
(36 items)				
Total Scale	100.79	20.62	99.55	22.05
(without 6 additional items)				

*Consists of 10 items

** Consists of 6 items

Table 5

PATHS Scores by Gender

Scale	<u>Males</u>		<u>Females</u>	
	Mean	SD	Mean	SD
Physical Subscale*	41.68	9.59	49.28	9.48
Learning Subscale*	30.81	6.39	36.36	8.08
Behavioral Subscale*	18.72	4.41	22.96	6.53
Without Disabilities Items**	27.34	4.14	29.11	2.10
Total Scale	118.55	16.92	137.72	21.55
(36 items)				
Total Scale	91.21	16.34	108.60	21.30
(without 6 additional items)				

*Consists of 10 items

** Consists of 6 items

Appendix A
Peer Attitudes Toward the Handicapped Scale (PATHS)

Directions: Please read the Student Description to yourself while we read them out loud. Read about the student and decide how you feel about him/her. Then select or place this student where he or she should work. You have five choices:

- 5 = Work with me in *My Group***
- 4 = Work with *Another Group* (with someone else)**
- 3 = Work in *No Group* (with no other students)**
- 2 = Work *Outside of Class* (in another class or room)**
- 1 = *Stay at Home* (and not come to school)**

Circle the number that best describes how you fell or where you think that students should work. Read each statement carefully and answer as honestly as you can.

Student Descriptions

1. Stephen cannot follow directions, and his teacher must tell him at least three times what to do; even then Stephen might still not know what to do. He is unable to do the class work and is failing every subject.

This student should work:

In My Group	In Another Group	In No Group	Outside of Class	At Home
5	4	3	2	1

2. Anna has a hard time breathing. She always sounds like she is choking. Despite her difficulty, Anna is a good student.

This student should work:

In My Group	In Another Group	In No Group	Outside of Class	At Home
5	4	3	2	1

3. Jimmy is crippled and needs to sit in a special wheel chair in class. He's smart and learns all the work. Jimmy has trouble moving around and needs special help.

This student should work:

In My Group	In Another Group	In No Group	Outside of Class	At Home
5	4	3	2	1

4. Ryan has problems with math. He uses his fingers for adding number and does not remember his facts. He never finishes his math assignments.

This student should work:

In My Group	In Another Group	In No Group	Outside of Class	At Home
5	4	3	2	1

5. Teisha is good at reading. She gets good grades on all of her tests and always finishes her assignments.

This student should work:

In My Group	In Another Group	In No Group	Outside of Class	At Home
5	4	3	2	1

6. Kathy always interrupts her class by calling out, teasing and demanding the teacher's attention. She is always getting out of her seat and going to the teacher's desk. She lies, cheats, and does not make friends.

This student should work:

In My Group	In Another Group	In No Group	Outside of Class	At Home
5	4	3	2	1

7. Sally is having a very difficult time in school. She cries, bangs her head on the desk, and falls off her seat. She blacks out sometimes and doesn't know where she is.

This student should work:

In My Group	In Another Group	In No Group	Outside of Class	At Home
5	4	3	2	1

8. Sharon can't remember what she reads and this makes her upset. After Sharon reads aloud, the teacher will ask her several questions about the story. Sharon just forgets what she reads. She has a poor memory.

This student should work:

In My Group	In Another Group	In No Group	Outside of Class	At Home
5	4	3	2	1

9. Jeff's writing is very poor for a boy in the sixth grade. It is hard to understand because there are so many mistakes. His writing is sloppy, and his choice of words is often inappropriate.

This student should work:

In My Group	In Another Group	In No Group	Outside of Class	At Home
5	4	3	2	1

10. Tim follows the rules at school. The teacher and students in the class all like him because he does not cause trouble and is nice to everyone.

This student should work:

In My Group	In Another Group	In No Group	Outside of Class	At Home
5	4	3	2	1

11. Peggy is cross-eyed. She doesn't like to talk to others in the class and dislikes working in small groups with her teacher.

This student should work:

In My Group	In Another Group	In No Group	Outside of Class	At Home
5	4	3	2	1

12. Michael is partially deaf in both ears. He wears a hearing aid and has difficulty saying words. His speech sounds different. This makes him hard to understand.

This student should work:

In My Group	In Another Group	In No Group	Outside of Class	At Home
5	4	3	2	1

13. Dick is an excellent ball player. He gets along with his classmates but is unable to read any of his class material. As a result he has failed all the tests. This has upset him very much.

This student should work:

In My Group	In Another Group	In No Group	Outside of Class	At Home
5	4	3	2	1

14. Julie has only one arm because of a serious auto accident. She is working below other students and has difficulty writing and completing classroom assignments.

This student should work:

In My Group	In Another Group	In No Group	Outside of Class	At Home
5	4	3	2	1

15. Lee learns very slowly. His teacher has to repeat everything or Lee will just not do anything. He loses his place in reading and doesn't do homework.

This student should work:

In My Group	In Another Group	In No Group	Outside of Class	At Home
5	4	3	2	1

16. Molly is the best soccer player in the class. She gets along with all of her classmates and is the best athlete in the class.

This student should work:

In My Group	In Another Group	In No Group	Outside of Class	At Home
5	4	3	2	1

17. Mary is a third grader and can't read or spell very well. she sees things backwards and sometimes up-side down. When she is asked to read or spell, she gets upset and usually sits at her desk and scribbles.

This student should work:

In My Group	In Another Group	In No Group	Outside of Class	At Home
5	4	3	2	1

18. John has great difficulty seeing. He is partially blind and unable to read from the blackboard. He is only able to read books with very large print. John wears a patch over his bad eye.

This student should work:

In My Group	In Another Group	In No Group	Outside of Class	At Home
5	4	3	2	1

19. Jill likes school and works hard but has great difficulty holding pencils or pens due to a muscle problem resulting from a serious illness. Jill can read but finds writing almost impossible to do.

This student should work:

In My Group	In Another Group	In No Group	Outside of Class	At Home
5	4	3	2	1

20. Steve is a poor learner and is failing all subjects in his class. He always disrupts the class and acts bad to his teachers.

This student should work:

In My Group	In Another Group	In No Group	Outside of Class	At Home
5	4	3	2	1

21. Jose is very smart but is always complaining about his parents. It seems they beat him and push him away, or send him to his room. In class Jose is always "showing off" and wants to take over.

This student should work:

In My Group	In Another Group	In No Group	Outside of Class	At Home
5	4	3	2	1

22. When Amy does math she takes much longer than everyone else. When she is told to add, she subtracts; when she is told to subtract, she adds. She does not understand math signs and cannot follow directions.

This student should work:

In My Group	In Another Group	In No Group	Outside of Class	At Home
5	4	3	2	1

23. Peter does not do what his teacher wants, which generally results in Peter being sent from the room. He always argues with his teacher, causing the class to become very upset.

This student should work:

In My Group	In Another Group	In No Group	Outside of Class	At Home
5	4	3	2	1

24. Mary is a very poor reader and can only read a few words. She does little homework and doesn't like school.

This student should work:

In My Group	In Another Group	In No Group	Outside of Class	At Home
5	4	3	2	1

25. Laura never gets in trouble in school. The teacher and other kids' parents seem to like her because she is well-behaved.

This student should work:

In My Group	In Another Group	In No Group	Outside of Class	At Home
5	4	3	2	1

26. Carol Lee is very shy and has a speaking problem, which she cannot help. She stutters on almost every sentence, making it difficult to listen to her.

This student should work:

In My Group	In Another Group	In No Group	Outside of Class	At Home
5	4	3	2	1

27. Samantha is a poor student and slows the teacher's lesson. This holds back the class. She either stands off to the side or pushes everyone away, using loud and rough talk.

This student should work:

In My Group	In Another Group	In No Group	Outside of Class	At Home
5	4	3	2	1

28. Maria learns very slowly and needs to have instructions repeated several times. Even then she may not be able to do the work.

This student should work:

In My Group	In Another Group	In No Group	Outside of Class	At Home
5	4	3	2	1

29. Jim looks different because his head is very large. It makes his eyes and ears look different. He is clumsy and stumbles a lot. He spoils the team he is on in gym.

This student should work:

In My Group	In Another Group	In No Group	Outside of Class	At Home
5	4	3	2	1

30. Anthony learns very fast and always is the first one to turn in his work. He likes school and works hard on his homework.

This student should work:

In My Group	In Another Group	In No Group	Outside of Class	At Home
5	4	3	2	1

31. Benny walks different because one of his feet is bigger than the other and is twisted. He limps badly, and has the name "Limpy."

This student should work:

In My Group	In Another Group	In No Group	Outside of Class	At Home
5	4	3	2	1

32. Rebecca doesn't like school. She is always late in the morning. When she is at her desk, she is always moving around, dropping things and making noise. She disrupts everyone and usually is punished by the teachers.

This student should work:

In My Group	In Another Group	In No Group	Outside of Class	At Home
5	4	3	2	1

33. Bill talks all the time. Everyone must do what he says. If they don't, he bites, scratches, kicks and punches. Then he goes into a rage.

This student should work:

In My Group	In Another Group	In No Group	Outside of Class	At Home
5	4	3	2	1

34. Linda has a bad scar from the top to the bottom of her lip which pulls her mouth crooked. When she talks it is hard to understand because it sounds like she is talking through her nose.

This student should work:

In My Group	In Another Group	In No Group	Outside of Class	At Home
5	4	3	2	1

35. Greg is absent from school all the time and has difficulty breathing on certain days. He is always visiting the nurse's office for pills. Greg is very skinny.

This student should work:

In My Group	In Another Group	In No Group	Outside of Class	At Home
5	4	3	2	1

36. Brittany has really good eyesight. The teacher always puts her in the back row because she can see what is written on the board.

This student should work:

In My Group	In Another Group	In No Group	Outside of Class	At Home
5	4	3	2	1

School type _____

Please circle the answer that applies to you.

Grade: 4 6

Gender: Male Female

A **disability** is a condition that a person has in that they have difficulty moving, learning, or growing like other people their age.

Do you know a peer with a disability in your neighborhood? Yes No

If yes, how often do you play with them?

Never Once a month Once a week Once a day More than once a day

Do you know a peer with a disability in your school? Yes No

If yes, how often do you play with them?

Never Once a month Once a week Once a day More than once a day

Do you know a peer with a disability in your class? Yes No

If yes, how often do you play with them?

Never Once a month Once a week Once a day More than once a day

Do you know a peer with a disability in your church group? Yes No Do not attend

If yes, how often do you play with them?

Never Once a month Once a week Once a day More than once a day

Do you know a peer with a disability on your sports team? Yes No Do not play

If yes, how often do you play with them?

Never Once a month Once a week Once a day More than once a day

Do you know an adult with a disability? Yes No

If yes, how often do you see them?

Never Once a month Once a week Once a day More than once a day