Growing Up in an Inclusive World:  
Second and Fifth Grade Students’ Attitudes Toward Peers With Disabilities

An Honors Thesis (HONRS 499)

by

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Abstract

Changes in special education law mandate children with disabilities be educated in general education settings whenever possible. This provides opportunities for typical students to learn and interact with a diverse group of peers. Drawing upon prior research conducted with young children (Cohen & Lopatto, 1995), the present study examined the age related factors that impact children's attitudes toward peers with disabilities. Second and fifth grade students were shown pictures of children with observable disabilities and children without observable disabilities. They were then asked to answer a series of questions about the children in the pictures and about persons with disabilities in general. It was hypothesized that there would be significant differences in the responses of participants according to age. Two types of analyses supported this prediction.
Acknowledgements

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Today’s classrooms contain a diverse population of children. The diversity is from many sources, including differences in the level of intellectual and physical abilities of the children. About 10% of the children in the public school educational system have special needs due to physical disabilities, emotional disturbances, or mental retardation (Fabes & Martin, 2000). Segregation of children with disabilities is no longer acceptable. Changes in special education law mandate children with disabilities be educated in general education settings whenever possible.

Persons with disabilities are increasingly being given the opportunity to be included in all aspects of society. The Americans With Disabilities Act (1992) now guarantees persons with disabilities the right to equal access to promote their integration into all aspects of society including public accommodations, transportation, communications, employment, recreation and education. Further, the Individuals with Disabilities Education Act (IDEA) requires all educationally handicapped students between the ages of three and twenty-one to receive a free and appropriate education in the least restrictive setting possible to meet their unique needs (Shapiro, 1999). Children who require special education are given the opportunity to learn and socialize with their typical peers.

School-age children are at a stage in life where they are constantly learning from their surroundings and the people with whom they interact. The information that they are given and the observations that they make help them to form certain attitudes. The practice of including children with disabilities in the regular classroom provides opportunities for children with
disabilities. It also provides opportunities for typical students to learn and interact with a diverse
group of peers.

The word “disability” can be defined in many ways. The American Heritage Dictionary
(1999) defines disability as: “...a disabled condition; incapacity...something that disables;
handicap...a legal incapacity or disqualification”. In educational settings, a disability is
considered a condition that interferes with a student’s ability to learn and necessitates special
education services. This may be a physical, cognitive, or an emotional impairment.

“A wide range of attitudes towards people with a mental handicap is to be found in the
general public...public attitudes are confused and even contradictory” (Eayrs & Ellis, 1990).
Shapiro (1999) defines an attitude as the general tendency of an individual to act in a certain way
under special conditions. It is, therefore, the tendency for an individual to act or react positively
or negatively to his or her world based on the values, beliefs, and paradigms rooted in his or her
social experiences. Attitudes are acquired through “observational learning”.

Definitions of attitude may vary slightly; however most include three interrelated basic
elements. First, a belief or “cognitive” component is involved. Second, an emotional or
“affective” component and third, an action or “behavioral” component is included. The
components are interrelated because positive and complimentary beliefs are accompanied by
liking and positive feelings while uncomplimentary and negative beliefs are accompanied by
dislike and negative feelings. These beliefs and feelings, in turn, represent a tendency to act
(Shapiro, 1999).

Throughout time attitudes toward persons with disabilities have changed greatly.
Examining the historical treatment toward persons with disabilities contributes insight into the
origins of common current attitudes, particularly fear, rejection, fascination, ridicule and pity.
Throughout history, discriminatory treatment toward persons with disabilities has varied greatly from nation to nation and culture to culture, ranging from complete rejection and ostracism to semi-deification. However, treatment of persons with disabilities has been one of increasing humanization, away from extermination, banishment and exclusion. Americans are now moving toward a goal of full acceptance, respect, civil rights and social inclusion (Shapiro, 1999).

Historically, attitudes about persons with disabilities have been shaped by several factors. One such factor is the nature of the disability. Physical disabilities are often viewed differently than cognitive learning disabilities. A physical disability is more visible and therefore more obvious to the casual observer. A learning disability may be kept hidden even in the classroom at times. However, according to Hastings, Berry, and Whennell (1998) despite research interest in the nature of disability, studies of attitudes toward children with learning disabilities have been lacking.

Gender differences also contribute to attitudes toward persons with disabilities. Harper (1997) found that males were more avoidant of physical disabilities that interfere with functional activities. Conversely, females rated cosmetic disabilities as less desirable. In a related study, Hastings, Berry and Whennell (1998) reported that female research participants expressed more positive attitudes toward people with disabilities than did male participants.

Developmental differences have also been found to factor into attitudes towards persons with disabilities. For example, a study by Cohen and Lopatto (1995) explored how young was too young to comprehend the idea of a person being “handicapped.” Heyman and Gelman (1999) found in their study on trait labels and psychological inferences that children as young as four years of age can use trait labels to recognize differences among people.
Understanding the knowledge and attitudes of typical school-age children toward their peers with disabilities is important. Such understanding will enable educators and parents to provide accurate and positive information to children about disabilities as well as information pertaining to appropriate treatment of others with disabilities.

Current research indicates that the level of prior contact with persons with disabilities can affect a child's attitude. Kishi and Meyer (1995) found that earlier social contact with peers with disabilities positively affected typical peers' attitudes, level of future contact, and more support for full community participation.

Hasting, Berry and Whennell (1998) write that despite research interest in the nature of disability, studies of attitudes toward children with disabilities have lacked specificity. Their study of medical professional's attitudes toward children with Rett Syndrome found that the level of participants' previous contact with children with learning disabilities had a significant impact on their attitudes toward a child with Rett Syndrome.

Researchers concur that the attitudes of educators and parents influence those of peers of children with disabilities (Hastings et al., 1998). However, educators and parents have little information concerning the factors that influence the development of children's attitudes towards persons with disabilities. Silverman and Largin (1993) support this finding and call for additional research in the area of children's attitudes toward persons with disabilities.

Researchers in the educational, psychological, and medical fields all assert that children's attitudes toward others with disabilities is an important area to study. However, studies in this area have been limited in several respects. The purpose of the present study was to examine the developmental factors that impact children's attitudes toward persons with disabilities.
Previous studies have concentrated on the effects of specific disabilities on individual cohorts; whereas, the present study measured the attitudes of two cohorts toward children with disabilities and compared their responses. Previous studies have used either qualitative or quantitative methods. However, in the present study participants' attitudes toward persons with disabilities were measured both quantitatively and qualitatively.

Previous studies have lacked the practical applicability of the present study. Most children with disabilities are between the ages of 6 and 11 (46.3 percent) (Fabes & Martin, 2000). This means that children of these ages are the children who are most in need of guidance concerning how to develop appropriate attitudes toward those with disabilities. The present study used participants in the 6-11 age group in order to produce information that could be used practically. Results from this research will inform educators and parents concerning how to help children develop appropriate attitudes toward those with disabilities.

Due to the cognitive, social, and emotional differences between the two cohorts used in the present study, it was expected that there would be significant differences in the responses of participants according to their grade. Although a physical impairment would affect children of any age, the cognitive, physical, and social changes that take place between early childhood, middle childhood, and adolescence make the issue of physical disability particularly relevant for children in this age range (Crystal, Watanabe & Chen, 1999).

It was predicted that the second graders would have a less well-developed idea of what constitutes a disability and therefore have more positive attitudes toward their peers with disabilities. Fifth graders are more aware of individual differences. Therefore, it was predicted that fifth graders would have a more well developed idea of what constitutes a disability, but would have more negative attitudes toward their peers with disabilities.
Method

Participants

Eighteen second grade and twenty-four fifth grade students from an elementary school of approximately 480 (K-5) students participated. The participants were non-disabled students. They lived in an upper middle class, suburban community.

The demographic information for the participants is broken down by grade level. Of the 18 second grade students, eleven second grade students were female and seven second grade students were male. Of the 24 fifth grade students, twelve fifth grade students were female and twelve fifth grade students were male. The mean age of the second grade students was 7.83 years old ($X=7.83$, $SD=.51$). The mean age of the fifth grade students was 11.04 years old ($M=11.04$, $SD=.20$). The race frequencies for second grade students were white/Caucasian (15), Hispanic (1), Native American (1), and other (1). The race frequencies for fifth grade students were white/Caucasian (20), Hispanic (1), Native American (0), and other (3).

The school philosophy was to include students with disabilities in all areas possible. Students within the building included neurotypical students as well as students with a range of disabilities. The disabilities included learning disabilities, mild mental disabilities, autism, and a variety of physical disabilities. According to the current director of special education, approximately 12% of the school population had some disability. The school district has rigorously worked to include students with disabilities in regular education classrooms for approximately ten years.

Materials and Procedures

Parental consent and assent from the minor children was obtained in writing. Once informed consent was given, data collection sessions began. Using one-on-one interviews, an
experimenter asked participants to first look at a series of pictures (see Appendix A). Half of the pictures showed a child with an observable disability; half of the pictures showed a child who appeared neurotypical. After each picture was shown, the participant was asked to rate the child in the picture on a seven-point, Likert-type scale, using five semantic differentials such as good/bad, happy/sad, and friendly/unfriendly (see Appendix B). The scale values ranged from −3 to +3. For example, a value of −3 indicated “very, very sad”, a value of −2 indicated “very sad”, and a value of −1 indicated “a little sad”. Zero was “in the middle”. A value of +1 indicated “a little happy”, a value of +2 indicated “very happy”, and +3 indicated “very, very happy”.

Next the participant was asked to answer the question, “What do you think it means when someone has a disability?” Answers were written verbatim as given by the participant. Then participants who gave an answer that indicated that they had no knowledge of a disability were given a description of what it means prior to answering the next set of questions. The experimenter described having a disability as having physical, mental or emotional limitations. Examples of being in a wheelchair and having a difficult time learning certain subjects at school were given. Participants were told that sometimes a disability can be seen so that the person appears to be different and that sometimes disabilities cannot be seen.

Participants were then asked to answer a series of seven Yes/No questions. The questions were as follows:

1. Do you think your classmates like people with disabilities?
2. Do you have any friends who have a disability?
3. Can you get sick by playing with people with disabilities?
4. Are you ever afraid of people with disabilities?
5. Do you think people with disabilities seem a lot like you?

6. Do people get disabilities because they were bad?

7. Do you think people with disabilities seem very different than you?

Finally, each participant was asked to answer several questions regarding demographic information (see Appendix C).

Results

Chi-square tests (grade (2nd vs. 5th) x response (yes vs. no)) were performed for each of the seven yes/no questions. Two of the seven questions yielded significant results. One chi-square test revealed a statistically significant difference in the number of second grade students versus fifth grade students who report having a friend with a disability, $X^2 (1, N=42) = 4.072$, $p=.045$. Specifically, seventy-five percent of the fifth grade students reported having friends who have disabilities; whereas only forty-four percent of the second grade students reported having friends who have disabilities.

Another chi-square test found a statistically significant difference in the number of second grade students and fifth grade students who report that persons with disabilities are different than themselves, $X^2 (1, N=42) = 9.911$, $p=.002$. Ninety-six percent of the fifth grade students reported that persons with disabilities seem different than themselves. While only fifty-six percent of the second grade students reported that persons with disabilities seem different than themselves.

Data were submitted to an ANOVA. The between subjects factor was grade (2nd vs. 5th) and the within subjects or repeated measures factor was picture type (disabled vs. non-disabled). A repeated measures ANOVA did not indicate a statistically significant main effect of the grade of the student or a significant interaction between grade and picture type. However, it indicated
a statistically significant main effect of the type of picture the student was shown, $F(1, 40) = 65.000, p<.001$. Students responded positively to the pictures of children with observable disabilities ($M=1.150, SD=.094$). However, they responded more positively to the pictures of children without observable disabilities ($M=1.520, SD=.078$) (see Figure 1).

Using the answers from the open-ended questions, a content analysis by independent judges revealed that the fifth grade participants had a clearer understanding of what it means to have a disability. Participants' answers to the question, "What does it mean when a person has a disability?" were placed in one of three categories. Category 1: the student recognized that having a disability indicates physical or mental limitations; Category 2: a disability means that a person is different; and Category 3: the student had no idea what it meant to have a disability.

Independent reviewers used to insure interrater reliability found that 96% of fifth grade students recognized that having a disability means that the person is different (categories 1 and 2) and 38% of fifth grade students knew that having a disability means physical or mental limitations (category 1). Only 4% of fifth grade students did not have any idea of what it meant to have a disability (category 3).

Sixty-one percent of second grade students did not have an idea of what it meant to have a disability (category 3). Only 5.6% of the second grade students gave an answer that indicated that they understood that having a disability means physical or mental limitations (category 1) and 33.4% of the second grade students recognized that having a disability means that the person is different (category 2) (see Appendix D for examples of student answers).

Discussion

Due to the cognitive, social, and emotional differences between the two cohorts used in the present study, it was expected that there would be significant differences in the responses of
participants according to their grade level in school. It was predicted that second grade students would have a less well-developed idea of what constitutes a disability and would therefore have more positive attitudes toward their peers with disabilities. Fifth graders are more aware of individual differences so it was predicted that while fifth grade participants would have a more well-developed idea of what constitutes a disability they would have more negative attitudes toward peers with disabilities.

While not all of the findings supported the hypotheses, the results of the present study did provide some interesting information. As predicted, the fifth grade students in the study demonstrated a well-developed idea of what it means to have a disability. The majority of the fifth graders recognized that having a disability means that the person is different and many fifth grade students knew that having a disability means physical or mental limitations. Conversely, the majority of second grade students did not understand the concept of what it meant to have a disability. Only 5.6% of the second grade students gave an answer that indicated that they understood that having a disability means physical or mental limitations. These findings are in keeping with prior research such as Cohen and Lopatto's (1998) study, which demonstrated that age affects a child's ability to comprehend what it means to have a disability.

In addition, the results indicated that more fifth graders reported having friends with disabilities. If more fifth graders are able to identify what it means to have a disability, it follows that more fifth graders would report having friends with disabilities. However, exposure to information regarding disabilities, if negative or inaccurate could lead to the opposite result. If the fifth grade student is misinformed about disabilities then they may be less likely to report having friends with disabilities.
In the present study, all students were asked whether or not they had friends with disabilities after being given a clear description of what it means to have a disability. Perhaps this difference is a result of a longer period of time in which the fifth grade students experienced social contact with peers with disabilities. Kishi and Meyer (1995) found that earlier social contact with peers with disabilities positively affected typical peers' level of future contact with and attitude toward peers with disabilities. If the early social contact is positively reinforcing, then the child is more likely to continue to befriend peers with disabilities.

More fifth grade students also reported feeling that peers with disabilities are very different from themselves. This could be a result of increased social comparison. Second grade students are less aware of differences between themselves and their peers and therefore were less likely to report feeling that peers with disabilities are very different from them. This finding supported the hypotheses.

Although no age differences were found in how participants rated the photographs, picture type influenced responses overall. Students responded positively to the pictures of children with observable disabilities. However, they responded more positively to the pictures of children who did not have observable disabilities. This indicates that some stigma is still attached to being different and specifically to having a disability.

The present study had several limitations. First, in a one-on-one interview children may respond in a way they believe will please the researcher and not be fully honest. Confounds such as experimenter expectancy, social desirability, and demand characteristics can affect the outcome of the research.
Second, the sample size was somewhat limiting. A smaller sample makes it more difficult to find statistical significance. A larger sample would provide a more typical cross-section of the population and increase the likelihood of obtaining statistically significant results.

Third, the participants were somewhat lacking in diversity. As students in the same elementary school, they had shared many of the same experiences. They primarily had the same socio-economic status and lacked ethnic diversity.

However, the results from this study have great implications for future research in the area of children's attitudes toward peers with disabilities. The present study has demonstrated that there is a significant difference between the understanding of the concept of disability for second and fifth grade students. Future studies might look at children of different ages to see if they also demonstrate different understandings of the concept of having a disability.

The information from the present study and any future studies can be used to enable educators and parents to help children develop positive attitudes toward their peers with disabilities and persons with disabilities as a whole. Recognizing the different cognitive and social levels of the children, programs can be developed that will teach children more about what it means to have a disability. This will promote the acceptance of children with disabilities into mainstream classrooms and enable them to have the same opportunities as their classmates without disabilities.
References


Appendix B

Do you think the child in the picture is:

very, very sad
very sad
a little sad
in the middle
a little happy
very happy
very, very happy

very, very bad
very bad
a little bad
in the middle
a little good
very good
very, very good

very, very unfriendly
very unfriendly
a little unfriendly
in the middle
a little friendly
very friendly
very, very friendly

very, very ugly
very ugly
a little ugly
in the middle
a little beautiful
very beautiful
very, very beautiful

very, very not smart
very not smart
a little not smart
in the middle
a little smart
very smart
very, very smart
Appendix C

ID# ______________

(Participants will be asked the following questions).

What do you think it means when a person has a disability?

Do you think your classmates like people with disabilities?

YES       NO

Do you have any friends who have a disability?

YES       NO

Can you get sick by playing with people with disabilities?

YES       NO

Are you ever afraid of people with disabilities?

YES       NO

Do you think people with disabilities seem a lot like you?

YES       NO

Do people get disabilities because they were bad?

YES       NO

Do you think people with disabilities seem very different than you’?

YES       NO

Now, I would like to ask you a few questions about yourself.

When is your birthday? How old are you? (Will check all DOBs with teacher to confirm).
Appendix C (Continued)

Which of the following best describes your race?
White/Caucasian
Black/African American
Hispanic
Native American
Asian
Other (please specify: __________________)

What grade are you in?
Second
Fifth
Appendix D

What do you think it means when a person has a disability?

<table>
<thead>
<tr>
<th>Examples of Second Grade Answers</th>
<th>Examples of Fifth Grade Answers</th>
</tr>
</thead>
<tbody>
<tr>
<td>“I don’t know.”</td>
<td>“I think it means that they can’t reach their goal”</td>
</tr>
<tr>
<td>“That they are a little mean”</td>
<td>“They have some sort of problem, but there is no reason to be afraid of them.”</td>
</tr>
<tr>
<td>“Maybe it is their property”</td>
<td>“They are in a wheelchair or have a learning disability”</td>
</tr>
<tr>
<td>“They can’t do something”</td>
<td>“It means they can’t do something without help”</td>
</tr>
<tr>
<td>“When they are no agreeing with another”</td>
<td>“When they cannot do things that everyone else can do”</td>
</tr>
<tr>
<td>“Someone who is in trouble”</td>
<td>“When someone has problems and they can not help it”</td>
</tr>
<tr>
<td>“Their body doesn’t work how it is supposed to”</td>
<td>“When they can’t do certain things”</td>
</tr>
<tr>
<td>“I’m not sure”</td>
<td>“It means they might learn a little slower”</td>
</tr>
</tbody>
</table>
Figure 1. Main Effect for Picture Type (p < .001)

![Bar chart showing average participant rating for picture type. The x-axis represents Picture Type with three categories: Disabled, Non-Disabled, and in the Middle. The y-axis represents the average participant rating ranging from 0 to 2. The chart indicates a significant main effect for picture type with a very high rating for the Disabled category.]