Creating Positive Attitudes toward People with Disabilities through Inclusion

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2007-2008
Abstract
This study investigates how policies of inclusion at the collegiate level influence attitudes toward persons with disabilities. According to Allport’s (1954) contact hypothesis, intergroup contact can reduce prejudice toward out-group members. With this in mind, inclusion may be a tool to reduce inequalities, stemming from prejudice which persons with disabilities face. Students from two undergraduate colleges completed the same explicit attitudes survey. St. Andrews Presbyterian College has a commitment to inclusion while Hanover College does not have a strong policy of inclusion; for this reason it was hypothesized that St. Andrews students would report more positive attitudes toward persons with disabilities than Hanover students. Overall, St. Andrews and Hanover students’ attitudes did not differ as measure by the Multidimensional Attitudes Scale and the Disability Social Relations Generalized Disability scale. However, St. Andrews upper-classmen did report more positive affects than St. Andrews first-year students and all Hanover students. These results indicate that exposure to an inclusive program over an extended period of time does predict more positive feelings toward persons with disabilities.
Creating Positive Attitudes toward People with Disabilities through Inclusion

Throughout the last century there have been incredible social transformations that have increased the civil rights and diminished negative attitudes toward disenfranchised populations within America. Despite these transformations, persons with disabilities continue to experience discrimination that is deeply rooted in negative attitudes and stereotypes. The Americans with Disabilities Act of 1990 states that 15 percent of Americans have one or more physical or mental disabilities and this group of people continue to experience inequalities in employment, housing, public accommodations, education, transportation, communication, recreation, institutionalization, health services, voting, and public services. Inequalities in the areas of employment, education, and earning potential have also been demonstrated by the U.S. Census Bureau’s American Community Survey (2006) which reports that 29.3 percent of non-institutionalized persons with disabilities have a less than high school education compared to 12.4 percent of nondisabled persons. Additionally, this survey reports that only 25.6 percent of non-institutionalized persons with disabilities are employed, compared to 69 percent of nondisabled persons. Finally, inequalities in earning potential are also demonstrated by the American Community Survey (2006); 33.6 percent of non-institutionalized persons with disabilities have an income less than 10,000 dollars per year, compared to 19.6 percent of nondisabled persons.

One of biggest obstacles for disabled persons has been overcoming social stigmas that inhibit them from fully integrating into society. People with disabilities, mental and physical, have a history of institutionalization. Despite the deinstitutionalization movement that was launched in the 1960s people with disabilities continue to be
Effects of inclusion on attitudes toward disabled segregated from the mainstream. The deinstitutionalization movement advocated for the reintegration of person with disabilities into society; however segregation of persons with disabilities often results from the lack of opportunities for adequate and accommodating housing. Segregation increases social distance between disabled persons and non-disabled persons which limits the opportunity for interaction and increases the likelihood that persons with disabilities will be socially rejected, thus strengthening negative attitudes and stereotypes of this group of people (Davis, 1961; Evans, 1976; Link et al., 1999). One issue that disabled persons face is the lack of independent living where they have the same opportunities for choice and control as non-disabled persons (Morris, 2004). Chamberlain (1978) has identified that this is a hindrance because stigma against persons with disabilities will persist until persons with disabilities can demonstrate their independence by regaining control over their living situations.

Many studies have sought to find ways in which attitudes and stereotypes of people with disabilities can be altered. According to Fishbein and Ajzen (1975) one of the most effective methods for changing attitudes is to provide new information that challenges existing beliefs. Intergroup contact provides a forum where new information can be learned through direct experience. According the Allport’s Contact Hypothesis (1954) intergroup contact can reduce prejudice and stereotyping between groups as long as certain conditions are met. Allport states that the effectiveness of intergroup contact is greatly enhanced if the contact is sanctioned by institutional supports; and if the groups have common goals, cooperation, and equal group status within the situation. Social scientists have suggested that intergroup contact is an effective strategy for improving intergroup relations because it stimulates group members to recognize interpersonal
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similarities with the other group (Brown & Lopez, 2001). With this in mind, the primary goal of this research is to investigate how contact between persons with disabilities and non-disabled individuals, through inclusion, impacts explicit attitudes toward people with disabilities. Inclusion is defined as an educational model in which students with disabilities receive their education in a general educational setting with typical students (Accardo & Whitman, 1996). Inclusion has the ability of being especially powerful in changing attitudes because it contains the variables that Yuker (1994) identities as important in changing attitudes toward the disabled such as cooperation, reciprocity, and getting to know one another over an extended period of time. It is expected that students attending a college that places an emphasis on inclusion will have more positive attitudes toward people with disabilities than students attending a college that has very little emphasis on inclusion.

Currently, most research in this area focuses on how various forms of exposure to a person with a disability affects attitudes toward the disabled. Yuker (1994) summarizes the variables that influence attitudes toward people with disabilities and identifies key features of contact with between disabled persons and nondisabled persons that should be present in order to create positive attitudes. Yuker (1994) states that for the interaction to create positive attitudes the non-disabled person should

“have demographic and personality characteristics similar to those of the disabled individuals with whom they interact, and should have status that is equal to the disabled person. … The interaction should involve cooperation and reciprocity, be rewarding to both disabled and nondisabled participants,
result in the participants getting to know one another as individuals, and persist over time.”

Much research that has focused on exposing nondisabled persons to individuals with disabilities has not been successful in creating lasting positive attitudes toward people with disabilities because it does not contain the crucial variables and conditions identified by Yuker and Allport. Specifically, one of the most common forms of intervention used by researchers as a means to reduce negative attitudes toward person with disabilities is to expose nondisabled persons to explanatory information about disabilities. This information is often presented through video. Explanatory information focuses on educating participants about the disability such as the origins, causes, traits, and treatment rather than focusing on knowledge about the people who are disabled (Yuker, 1994). Campbell, Ferguson, Heringer, Jackson, and Marino (2005) attempted to create positive attitudes in school age children using a video intervention. Most children showed little to no change in their attitudes toward disabled individuals following exposure to the explanatory information. This indicates that simply educating children about a disability is not a successful approach to ameliorating negative attitudes toward the disabled. Swaim and Morgan (2001) found similar results in which children’s negative perceptions of Autism persisted despite attempts to provide the children with explanatory information about Autism. One potential reason that explanatory information does not change attitudes is that it focuses on the differences rather than similarities between the target audience and the person in video. Information about the disability also emphasizes weaknesses instead of abilities which have been predicted by Yuker (1994) to be either unrelated or negatively related to attitudes toward disabled people.
Although research has indicated that explanatory information alone is not enough to change attitudes toward disabled persons, other studies have sought to find whether descriptive information or a combination of descriptive and explanatory information can be tool in creating positive attitudes toward individuals with disabilities. Descriptive information educates participants specifically about the person who has a disability. This kind of information would provide personal information about the individual while very briefly acknowledging that the individual has a disability (Yuker, 2004). Campbell, Ferguson, Herzinger, Jackson, and Marion (2004) were successful in demonstrating that descriptive information alone was not successful in creating positive attitudes toward persons with disabilities; however, a combination of explanatory and descriptive information was successful. Overall, the research on informational interventions has not been able to provide consistent results to suggest that these interventions may be a good tool to use in ameliorating negative attitudes toward persons with disabilities. Much debate continues over what kinds of information are most useful and why these kinds of information are advantageous over others. Research on the benefits of direct contact has been more reliable and consistent than research on informational interventions. Contact Hypothesis research has demonstrated the ability of intergroup contact to create positive attitudes toward out-group members for decades, across cultures, and across diverse groups with a variety of intergroup dynamics. (Brown, Eller, Leads, & Stace, 2007; Hewstone, Cairns, Voci, Hamberger, & Niens, 2006).

Policies of inclusion are of especial interest because they carry great potential to reduce negative attitudes toward persons with disabilities because inclusion policies can
adequately satisfy Allport’s necessary conditions for optimal intergroup contact and can reach many people. A multitude of previous research has found that benefits associated with mainstreaming and inclusive education include less prejudice and stigmatization; however, the benefits of inclusive extend beyond lessening negative attitudes (Campbell, 2006). Inclusion can be beneficial for students with disabilities because it allows “greater access to appropriate social behavioral models, responsive social partners, and participation in normalized social experiences” (Burack, Root, & Zigler, 1997). There are advantages of inclusion for non-disabled students also, such as gaining knowledge of people who have very different lives from able-bodied people, gaining tolerance, patience, and developing friendships with people who have disabilities (Gilmore, Campbell, & Cuskelley, 2003). Rosenbaum, Armstrong, and King (1986) were able demonstrate the advantage of direct contact over an informational intervention by conducting a study in which children were randomly assigned to one of two conditions. In the first condition children received explanatory and descriptive information about different disabilities through a puppet show. In the second condition the children were part of a “buddy” system that involved direct contact between children with disabilities and without disabilities over a three month period. The buddy system condition was more effective for producing attitude changes than the puppet show. One reason why the buddy program was more successful is because it provided meaningful interactions between the two groups of students that allowed them to form relationships and realize the similarities and commonalities that they shared; similar results are expected for the current research. It is hypothesized that students who are involved in an inclusive program will have more meaningful interaction than students who are not involved in such a program and those
meaningful interactions will result in more positive attitudes toward people with
disabilities.

The purpose of the current research is to better understand policies of inclusion at
the collegiate level, since few studies have examined policies of inclusion at a higher
academic level and involving young adults. Participants will be drawn from two college
populations. The students from one college will have had little opportunity for daily
interaction with people who have disabilities as the college does not particularly
emphasize accommodating students with disabilities. Students from the second college
will have a background of daily interaction with people who have disabilities because the
college does have a policy of inclusion where the students live together and attend class
together on a daily basis. The second college maintains a commitment to being “disability
aware,” strives to provide an equal opportunity for education, and actively recruits
students with disabilities. It is expected that the students in the more inclusive atmosphere
will have more positive explicit attitudes toward people with disabilities than the students
from the college where there is not a strong policy of inclusion of people with disabilities.
Explicit attitudes are those that the individual can identify and convey to others through
language and are strongly linked to behaviors, cognitions, and feelings.

The students attending a college that maintains a strong policy of inclusion is
expected to have more positive attitudes toward people with disabilities because
programs of complete inclusion provide opportunities of meaningful, frequent, and
extended interaction between disabled and non-disabled students. An inclusive classroom
and inclusive living arrangements are expected to be successful in creating more positive
attitudes toward people with disabilities because they have many of the key variables that
are identified by Yuker and Allport as vital for contact that is successful in creating
positive attitudes. Students with and without disabilities are all equals in status within the
hierarchical structure of a college program. Experiences within the classroom of a shared
goal, cooperation, interdependence, and reciprocity will foster more positive attitudes
between groups. Also, living in a campus environment will facilitate the growth of
relationships, recognition of pertinent issues that impact out-group members, and
perception of similarities that each group shares. All of these factors will contribute to the
development of positive attitudes toward persons with disabilities. Students without these
enriching experiences will fail to develop attitudes as positive as students who do have
meaningful interactions on a daily basis with persons who have disabilities.

This study is important because it can provide support for policies of inclusion at
the collegiate level which has previously been neglected by research. In supporting
inclusion as a tool for reducing negative attitudes toward persons with disabilities, this
study provides the next step in overcoming inequalities and the marginalization that
millions of Americans are unjustly subject to.

Method

Participants

The participants of this study are students from two undergraduate college
programs. St. Andrews Presbyterian College was chosen because of it’s commitment to
inclusion and providing equal educational opportunity for students with disabilities.
Hanover College was chosen because it does not maintain a strong policy of inclusion
and there is a limited opportunity for interaction between students with and without
disabilities. Students at both colleges were encouraged to participate through email. Two
all-student emails were sent out to St. Andrews students and a number of professors encouraged their students to participate; some participants were offered extra class credit. An email was also sent out to every fifth student in the Hanover College directory encouraging them to participate. Overall there were 140 respondents (69 percent female); 54 Hanover students and 85 St. Andrews students responded. Participants ranged in age between 18 and 23 years old. Participants reported completing between 12 and 17 years of education. Twelve participants reported having a disability and 51 reported having a close friend or family member who has a disability.

Instruments

This study used two self report explicit attitudes measures. The first measure was the Multidimensional Attitudes Scale toward Persons with Disabilities (MAS) developed by Findler, Vilchinsky, and Werner (2007). This measure was chosen because it was created by using a combination previous research and measures that have established reliability. This measure was also ideal because it targets three dimensions of attitudes which are affect, cognition, and behavior. Cronbach’s alpha’s for each of these subscales ranged from .83 to .90 in Findler, Vilchinsky, and Werner’s (2007) study. The affect subscale uses a range of pleasant to unpleasant feelings. For example, guilt would be an unpleasant feeling and calmness would be a pleasant feeling. The cognition subscale of the MAS provides examples of thoughts such as “We may get along really well.” Finally, the behavior subscale provides examples of both active behaviors (e.g. Start a conversation) and passive behaviors (e.g. Continue what he/she was doing). There were 16 affect items, 9 cognition items, and 8 behavior items (see Appendix A) The MAS was adapted by removing the self esteem portion of the survey as it was not relevant to the
current study. This measure employed a projective technique where participants cast their own emotions, thoughts, and behaviors onto a given a situation. Participants were asked to read a short scenario describing an interaction between “Joseph” or “Michelle” and a person in a wheelchair (see Appendix A). Participants were randomly assigned to read the version depicting “Joseph” as the main character or “Michelle” as the main character in order to ameliorate gender effects. After reading the short scenario, participants responded to likelihood of Joseph or Michelle experiencing certain affects, cognitions, and behaviors on a 5 point Likert scale. A number of items were reversed scored so that higher scores indicate more positive feelings; these items have asterisks beside them in Appendix A.

The second measure used to create the explicit attitudes survey was the Disability Social Relations Generalized Disability scale (DSRGD) created by Hergenrather and Rhoades (2007). This was also a self report measure that used a general definition of disability as no specific disability was identified. This measure was chosen because it focuses on social attitudes toward persons with disabilities, specifically in regards to dating, marriage, and work. The DSRGD employed a subscale for each of these components with 6 questions per subscale (See Appendix A). The items described real life situations that may arise in interactions between persons with and without disabilities. An example of a dating item is: When dating a person with a disability, I would not worry what others think. An example of a marriage item is: If I loved a person with a disability, I would try to marry him or her. Finally, and example of a work item is: In the workplace, I would have a close relationship with a co-worker who has a disability. Participants indicated their level of agreement to the items on a four point Likert. Three
items were reverse scored so the higher scores indicate more positive attitudes; those items are identified in Appendix A by an asterisk. Lastly a demographic questionnaire including age, gender, nationality, level of education, and prior relationships with persons who have disabilities concluded the survey.

Procedure

Upon accessing the website through the hyperlink provided in the email (http://psych.hanover.edu/research/seniorprojects/2008/banks/) participants were informed about the research in which they were about to participate and asked to consent to their participation (see Appendix B for informed consent form). Next, all participants were directed to the explicit attitudes survey. Participants first completed the Multidimensional Attitudes Scale toward Persons with Disabilities followed by the Disabilities Social Relations Generalized Disability scale. After completing these two measures participants were asked to voluntarily share any significant life events that involved persons with disabilities. Lastly, participants responded to the demographics questionnaire.

Results

Preliminary Analyses

Means, standard deviations, and Cronbach’s alphas for the Multidimensional Attitudes Scale and the Disability Social Relations Generalized Disability scale (and their subscales) are presented in Table 1. All subscales showed adequate reliability, $\alpha = .69$ to .91.
Central Analyses

Contrary to what was hypothesized, St. Andrews’ students did not differ from Hanover students in their attitudes toward the disabled as measured either by MAS or the DSRGD or any of the sub-scales for these assessments, all \( p > .05 \). However, inspection of the data and students’ remarks suggested that St. Andrews upperclassman may have differed from St. Andrews first-year students and Hanover students (both first-year and upperclassmen) in their attitudes. To examine this possibility further, correlations were calculated between level of education and each of the attitude measures. These analyses yielded a significant correlation between level of education and the MAS affect subscale for all participants, such that higher levels of education predicted slightly more positive feelings toward disabled persons, \( r(140) = .185, p = .029 \). However, when the data was divided by school the correlation between level of education and the MAS affect subscale became more pronounced for St. Andrews’ students while the correlation disappeared for Hanover students. Specifically, a higher level of education predicted more positive feelings toward disabled persons for students at St. Andrews, \( r(140) = .235, p = .03 \). However, increased levels of education did not significantly correlate with more positive feelings toward disabled persons for Hanover students. This finding suggests that students who are enrolled at an inclusive college experience a change in their feelings toward disabled persons that is positive; whereas students who are not enrolled in an inclusive college experience no significant change in their feelings.

This phenomenon was further explored by directly comparing the mean affect scores for St. Andrews first-year students, St. Andrews upper-classmen, and Hanover students. A one-way ANOVA revealed that the three groups differed significantly in their
Effects of inclusion on attitudes toward disabled persons, $F(2,137) = 4.024$, $p < .05$ (see Figure 1). Follow-up $t$-tests revealed that St. Andrews upper-classman reported more positive feelings toward the disabled than did St. Andrews first-year students, $t(83) = 2.58$, $p = .01$. This finding suggests that being immersed in an inclusive setting over an extended period of time results in more positive attitudes toward disabled persons than being immersed in this setting for only a short period of time. St. Andrews upper-classmen also reported significantly more positive feelings toward the disabled than did Hanover students, $t(87) = 2.25$, $p = .027$. This indicates that being in an inclusive college program for more than one year results in more positive attitudes than attending a college that does not have a policy of inclusion. Interestingly there was no significant difference on the MAS affect sub-scale for St. Andrews first-year students and Hanover students. Overall this means that inclusion policies do result in more positive feelings toward disabled persons but only when a student is in this setting for more than one year.

**Additional Findings**

Analyses were conducted to examine how having a personal relationship with a person with disabilities might influence one’s self-reported experience and knowledge of disabilities. Somewhat surprisingly, participants who reported having a relative or friend with a disability reported having significantly less experience ($M = 1.94$, $SD = .925$) with disabled persons compared to participants who reported having no family members or friends with disabilities ($M = 2.53$, $SD = .943$), $t(138) = 3.569$, $p < .01$. This same pattern emerged for reported knowledge of disabled persons or disabilities. Specifically, participants who reported having a family member or a friend with a disability reported having less knowledge about disabilities and disabled persons ($M = 1.76$, $SD = .681$)
Effects of inclusion on attitudes toward disabled compared to participants who reported having no family members or friends with disabilities ($M = 2.45$, $SD = .739$), $t(138) = 5.428$, $p < .01$. Obviously this seems to be a contradiction; however, it is suspected that having actual experience with people who have disabilities results in a more realistic assessment of one’s level of knowledge and experience of disabilities and persons who have disabilities, while those who have less actual interaction with disabled persons overestimate their level of knowledge and experience.

Lastly, there was one significant gender difference on the MAS cognition subscale with females ($M = 3.76$) indicating more positive thoughts about disabled persons than males ($M = 3.44$), $t(136) = 2.635$, $p < .01$. This reaffirms previous research that has found that females consistently report having more positive attitudes toward disabled persons than males.

Discussion

The original hypothesis of this study was that students from St. Andrews would express more positive explicit attitudes toward persons with disabilities than students at Hanover because St. Andrews employs a policy of inclusion that allows for frequent interaction between students with and without disabilities. Based on Allport’s (1954) Contact Hypothesis it was expected that this intergroup contact would result in more positive attitudes toward persons with disabilities. This hypothesis was not directly supported by the results as St. Andrews and Hanover students’ scores did not differ on the Multidimensional Attitudes scale nor did they differ on the Disability Social Relations Generalized Disability scale. Although the hypothesis was not directly supported, an interesting pattern emerged on the MAS affect subscale that indicates prolonged exposure
to an inclusive educational program does result in more positive feelings toward persons with disabilities. Comments left by participants suggested that the first year of exposure to an inclusive program is unique as it is a transitional period. One first-year St. Andrew’s student stated “I've met several people with disabilities. It's uncomfortable at times; I can be unsure whether to stare or look away or unsure if I should try to help.” It is well established that anxiety is common in the initial stages of intergroup contact and can produce negative reactions (Stephan, 1992; Wilder, 1993). However, if the contact is maintained over an extended period of time the anxiety generally reduces (Pettigrew, 1998). Overcoming these initial awkward and uncomfortable interactions ultimately results in developing more positive feelings toward persons with disabilities and more complex understanding of issues that impact persons with disabilities. This is demonstrated in a statement given by an upper-class St. Andrews student, “I used to look at people with disabilities the way ables do, as different. But then I realized that comes from the fact that disabilities don't fit into categories the way the legal and medical fields wish they were. Disease, illness, and conditions are all too different and influence people differently.” These comments portray the growth of St. Andrews students that results from the direct, meaningful contact provided by experience in an inclusive setting.

After reviewing participant’s comments, data from St. Andrews upper-classmen were compared to St. Andrews first year students and all Hanover students. As suspected, Hanover students’ attitudes did not become more positive over the course of their education and St. Andrew’s upper-classmen reported more positive feelings toward persons with disabilities than Hanover students. Although there was no difference in Hanover students’ and first-year St. Andrews students’ feelings toward persons with
disabilities, St. Andrews students’ attitudes did become more positive over the course of their education. This suggests that exposure to an inclusive program does not immediately create more positive feelings toward persons with disabilities; however, extended exposure to inclusion does ultimately result in more positive feelings toward persons with disabilities.

These findings affirm the ability of policies of inclusion to create more positive attitudes toward persons with disabilities. It also suggests that exposure to policies of inclusion need to be over an extended period of time in order to have a substantial impact. Intergroup contact over an extended period of time is one of the key variables that Yuker (1994) has identified as necessary for interaction between people with disabilities and people without disabilities to create positive attitudes. Pettigrew (1998) has also stated that in order for the effects of intergroup contact to be demonstrated, longitudinal designs are best (although rarely used), since initial intergroup contact usually has little effect. Pettigrew (1998) states that optimal intergroup contact requires time for “cross-group friendships to develop;” and proposes that a fifth condition should be added to Allport’s four conditions. Pettigrew has proposed that optimal intergroup contact demands that “The contact situation must provide the participants with the opportunity to become friends” because this would allow for self-disclosure which is a strong mediating factor in the success of intergroup contact to reduce prejudice (Turner, Hewstone, & Voci, 2007). Developing friendship is a crucial element in creating affective ties and these emotional ties are critical in intergroup contact theory because they are associated with empathy and role-taking (Pettigrew, 1998). The development of affective ties is one of the four major processes of change identified by Pettigrew. This
explains why St. Andrews first-year students have less positive feelings toward persons with disabilities than St. Andrews upper-classmen. Students who have been at St. Andrews for more than one year have had time to develop substantial affective ties through friendship whereas first-year students have not yet developed rich friendships that enable them to be more empathetic and skilled in role-taking.

One of the greatest strengths of an educational policy of inclusion is that it allows for direct contact over an extended period time which facilitates the development of friendships between nondisabled and disabled persons. These friendships generate affective ties which, in turn, generate attitude change. Interestingly, the only statistically significant differences between Hanover and St. Andrews students was on the MAS affect subscale and this difference appears to be due to the friendships that are developed between those with and without disabilities at St. Andrews.

St. Andrews policy of inclusion sets a great example for other colleges and universities to follow. One possible improvement that inclusion policies should consider is providing resources such as information or suggestions on how to handle awkward initial interactions. This would facilitate positive experiences and reduce anxiety for those new to the system. Providing such resources will allow students to interact more comfortably and discourage students from relying on stereotypes when interacting with a member of the other group. Reliance on stereotypes during cross-group interaction has been related to intergroup anxiety and contact avoidance, which is counterproductive. (Turner, Hewstone, & Voci, 2007).

Overall the results suggest that one of advantages of an educational policy of inclusion at the collegiate level is the ability to facilitate the development of friendships
and affective ties to out-group members. Additionally, this study reaffirms that intergroup contact needs to last over an extended period of time. These findings can be useful for future research and for the development of successful policies of inclusion. There were a few limitations in this study. One limitation is that most of the participants were first-year students. The differences between first-year and upperclassmen St. Andrews students may have become more pronounced if the sample was more representative of the normal distribution of students across grade levels. A second limitation was the difficulty of using an adequate operational definition of disability. By focusing on a physical definition of disability the generalizability of the results is hindered. Additionally, by using a broad and general definition of disability, the results become too vague to apply any disability at all. This was the main problem with the DSRGD and is most likely the reason that there were no significant results for this scale.

Although this study has demonstrated some advantages of inclusion policies there is much research that remains to be done before these policies should be widely implemented. Qualitative research in this area would be very beneficial for finding out the expectations and roles of parents, students, and teachers. Qualitative research would pave the road to discovering which aspects and components of inclusion make it successful or unsuccessful. Inclusion is not necessarily an easy thing to accomplish; it takes much determination and attention to avoid unintentional discrimination, commitment from the administration and faculty, and resources for teachers, parents, and students. Understanding how to adequately and successfully serve the needs of teachers, parents, and students can also be revealed by future research. Quantitative research should continue to study the impact of inclusion on attitudes and academic performance.
for persons with and without disabilities. Also, more needs to be known about whether inclusion is most effective at the preschool, elementary, secondary, or collegiate levels. Lastly, research must seek to find whether inclusion is the best educational option for students with severe disabilities or whether they would be best served in a specialized program. Obviously, much work lies ahead of those dedicated to inclusion; however, if inclusion holds the key to ridding societies of the inequalities that persons with disabilities face, the work will be worth the reward.
References


Appendix A

Imagine the following situation:

Joseph/Michelle went out for lunch with some friends to a coffee shop. A man/woman in a wheelchair, with whom Joseph/Michelle is not acquainted, enters the coffee shop and joins the group. Joseph/Michelle is introduced to this person, and shortly thereafter, everyone else leaves, with only Joseph/Michelle and man/woman in the wheelchair remaining alone together at the table. Joseph/Michelle has 15 minutes to wait for his/her ride. Try to imagine this situation.

People experience a variety of emotions when they are involved in such a situation. Following is a list of possible emotions which may arise before, during and/or after such a situation. Please rate on each line the likelihood that this emotion might arise in Joseph/Michelle:

<table>
<thead>
<tr>
<th>Affect</th>
<th>Not at all</th>
<th>Very much</th>
</tr>
</thead>
<tbody>
<tr>
<td>Rejection *</td>
<td>1</td>
<td>5</td>
</tr>
<tr>
<td>Pity *</td>
<td>1</td>
<td>5</td>
</tr>
<tr>
<td>Fear *</td>
<td>1</td>
<td>5</td>
</tr>
<tr>
<td>Helplessness *</td>
<td>1</td>
<td>5</td>
</tr>
<tr>
<td>Shame *</td>
<td>1</td>
<td>5</td>
</tr>
<tr>
<td>Guilt *</td>
<td>1</td>
<td>5</td>
</tr>
<tr>
<td>Shyness *</td>
<td>1</td>
<td>5</td>
</tr>
<tr>
<td>Tension *</td>
<td>1</td>
<td>5</td>
</tr>
<tr>
<td>Nervousness *</td>
<td>1</td>
<td>5</td>
</tr>
<tr>
<td>Stress *</td>
<td>1</td>
<td>5</td>
</tr>
<tr>
<td>Upset *</td>
<td>1</td>
<td>5</td>
</tr>
</tbody>
</table>
Effects of inclusion on attitudes toward disabled

<table>
<thead>
<tr>
<th>Depression *</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
</tr>
</thead>
<tbody>
<tr>
<td>Calmness</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>Serenity</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>Relaxation</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>Alertness *</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
</tbody>
</table>

*indicates reverse scoring

People experience a variety of cognitions/thoughts when they are involved in such a situation. Following is a list of possible thoughts which may arise before, during, and/or after such a situation. Please rate on each line the likelihood that this cognition/thought might arise in Joseph/Michelle:

<table>
<thead>
<tr>
<th>Cognitions</th>
<th>Not at all</th>
<th>Degree of likelihood</th>
</tr>
</thead>
<tbody>
<tr>
<td>Why not get to know him/her better?</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>She/he will enjoy getting to know me</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>I enjoy meeting new people.</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>She/he looks friendly.</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>I can make him/her feel more comfortable.</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>She/he seems to be an interesting guy/girl.</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>We may get along really well.</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>She/he looks like an OK person.</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>She/he will appreciate it if I start a conversation.</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>I can talk with him/her about things that interest both of us.</td>
<td>1</td>
<td>2</td>
</tr>
</tbody>
</table>
People experience a variety of behaviors when they are involved in such a situation. Following is a list of possible behaviors which may arise before, during, and/or after such a situation. Please rate on each line the likelihood that Joseph/Michelle would behave in the following manner:

<table>
<thead>
<tr>
<th>Behaviors</th>
<th>Degree of likelihood</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Not at all</td>
</tr>
<tr>
<td>Get up and leave *</td>
<td>1</td>
</tr>
<tr>
<td>Start a conversation</td>
<td>1</td>
</tr>
<tr>
<td>Move to another table *</td>
<td>1</td>
</tr>
<tr>
<td>Move away *</td>
<td>1</td>
</tr>
<tr>
<td>Read the newspaper or talk on a cell phone *</td>
<td>1</td>
</tr>
<tr>
<td>Continue what he/she was doing *</td>
<td>1</td>
</tr>
<tr>
<td>Find an excuse to leave *</td>
<td>1</td>
</tr>
<tr>
<td>Initiate a conversation if he/she doesn’t make the first move</td>
<td>1</td>
</tr>
</tbody>
</table>

*indicates reverse scoring

Please respond to the following items by indicating your level of agreement with each item. (1 strongly disagree; 2 disagree; 3 agree; 4 strongly agree)

(* indicates reverse scoring)
1. In dating a person with a disability, I would not worry what others think.

1 2 3 4

2. When dating a person with a disability, I would not find sex or physical contact with him or her uncomfortable.

1 2 3 4

3. When dating a person with a disability, I would feel comfortable introducing her or him to my family and friends.

1 2 3 4

4. When dating a person with a disability, I would feel comfortable in social situations such as dining out at a restaurant.

1 2 3 4

5. I would not feel comfortable having a relationship beyond friendship with a person who has a disability. *

1 2 3 4
6. When dating a person with a disability, I would feel comfortable assisting her or him with any treatment or medical care.

   1  2  3  4

7. When considering marriage, I would not exclude a person with a disability.

   1  2  3  4

8. A spouse with a disability would not be too dependent on me.

   1  2  3  4

9. In marriage to a person with a disability, I would not feel uncomfortable making love to my partner.

   1  2  3  4

10. In marriage to a person with a disability, my partner would be able to earn an adequate income.

    1  2  3  4
11. In marriage to a person with a disability, I would have to take full responsibility over parenting our children. *

1 2 3 4

12. In marriage to a person with a disability, I would have an unequal share of family responsibilities such as cleaning house, yard work, or preparing for a vacation. *

1 2 3 4

13. In the workplace, I would have a close relationship with a co-worker who has a disability.

1 2 3 4

14. In the workplace, I would not expect a co-worker with a disability to require extra help and attention that would disrupt normal activities.

1 2 3 4

15. In the workplace, I would be surprised if a co-worker with a disability fell behind in his or her work.

1 2 3 4
16. In the workplace, a co-worker with a disability could perform her or his tasks competently.

1  2  3  4

17. In the workplace, fellow employees would benefit from having a co-worker with a disability.

1  2  3  4

18. In the workplace, a co-worker with a disability would not inhibit me from completing my tasks.

1  2  3  4

Please take a moment to share any significant events that have occurred in your life involving persons with disabilities. (This portion is voluntary)

Demographics:

How much prior knowledge do you have a disabilities or people with disabilities?

1 – No knowledge
2- Little knowledge
3- Some knowledge
4- A lot of knowledge

How much personal experience have you had with persons who have disabilities?

1- A lot of experience
2- Some experience
3- Little experience
4- No experience

Please briefly list any close or personal family members or friends you have known that have disabilities. *(Please only indicate their relationship to you, example: brother)*

Do you have a disability?

1 Yes
2 No

What college do you attend?

1. Hanover College
2. St. Andrews

How many years of education have you completed?

12 for High School Diploma
16 for College Diploma (B.A., B.S., etc.)
20 for Doctorate
Are you male or Female?
Female
Male

What is your age in years?

What is your nationality?
Appendix B

Informed Consent

This study is being conducted by Christina Banks, who is a senior psychology major at Hanover College. The study in which you have the opportunity to participate is researching issues related to disabilities. You will read a short vignette followed by questions pertaining to the passage. Next you will respond to a questionnaire regarding social issues related to disabilities and demographic information.

This study will take approximately ten minutes to complete. There are no known risks involved in this study, beyond those of everyday life. All information that you provide will remain anonymous.

If you have any questions about this study and your participation in this study you may contact Christina Banks (banksc@hanover.edu) or the project advisor Dr. Ellen Altermatt (altermattel@hanover.edu).

By clicking the continue button below, I acknowledge that I am participating in this study of my own free will and I may discontinue or refuse to participate at any time.
Appendix C

Table 1.
Reliability, means, and standard deviations of measures.

<table>
<thead>
<tr>
<th>Measure</th>
<th>Mean</th>
<th>Standard Deviation</th>
<th>Cronbach’s Alpha</th>
</tr>
</thead>
<tbody>
<tr>
<td>MAS</td>
<td>3.32</td>
<td>.555</td>
<td>.91</td>
</tr>
<tr>
<td>MAS affect</td>
<td>3.10</td>
<td>.657</td>
<td>.88</td>
</tr>
<tr>
<td>MAS cognition</td>
<td>3.66</td>
<td>.675</td>
<td>.89</td>
</tr>
<tr>
<td>MAS behavior</td>
<td>3.42</td>
<td>.745</td>
<td>.83</td>
</tr>
<tr>
<td>DSRGD</td>
<td>2.93</td>
<td>.441</td>
<td>.85</td>
</tr>
<tr>
<td>DSRGD dating</td>
<td>2.89</td>
<td>.562</td>
<td>.74</td>
</tr>
<tr>
<td>DSRGD marriage</td>
<td>2.75</td>
<td>.598</td>
<td>.76</td>
</tr>
<tr>
<td>DSRGD work</td>
<td>3.15</td>
<td>.473</td>
<td>.69</td>
</tr>
</tbody>
</table>

Figure 1.
Differences in mean scores on MAS affect subscales. (Higher scores indicate more positive feelings).